Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Federal Regulator (Canadian Nuclear Safety Commission)	**OESC Code Rule:** Appendix B Note to Rule 2-000 a) **Support/Oppose:** Oppose **Rationale:** **This change is a significant concern. CNSC staff do not perform any verification activities against the Ontario Electrical Safety Code. ESA needs to remain the Authority Having Jurisdiction.** The nuclear power plant (NPP) operators are expected to apply all applicable codes at the federal, provincial and municipal levels. Specifically, there is an explanatory note in the Power Reactor Operating Licences that states: "*(i) Nothing in this licence shall be construed to authorize non-compliance with any other applicable legal obligation or restriction*." In addition, Canadian Nuclear Safety Commission (CNSC)'s design requirements for NPPs are established at a high level (safety goals and objectives) to ensure that public dose limits will be met. For electrical power systems, this means that the design needs to ensure that there's sufficient capacity to support the safety functions of the connected loads, and that the availability and reliability of the system has to be commensurate with the safety significance of the loads. (See CNSC's regulatory document REGDOC-2.5.2, *Design of Nuclear Power Plant* Section 8.9 - https://www.cnsc-ccsn.gc.ca/eng/acts-and-regulations/regulatory-documents/published/html/regdoc2-5-2/#sec8-9)	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have been made based on the submitted comments. Federal, provincial, and municipal jurisdictions rely on ESA to ensure safety of electrical installations and equipment. ESA's presence at generation facilities over the years, coupled with their service programs with specific generators, has played a pivotal role in ensuring safe electrical installations at these facilities.	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-001 - Rule 2-000.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	The Electrical Safety Code (ESC) is much more in-depth when compared to CNSC's regulatory requirements for electrical systems as it provides detailed requirements for the design of individual components, specific electrical protection, etc. Finally, CNSC staff do not assess compliance against the ESC. Therefore, CNSC staff disagree with the proposed change; the Electrical Safety Authority (ESA) needs to remain as the authority having jurisdiction with respect to the ESC. ***Modify current Appendix B Note to Rule 2-000 a).*** ~~*Where Codes issued by the Ontario Energy Board under Part V of the Ontario Energy Board Act, 1998, require a connection authorization, this Code applies to electrical installations specified in Item a). Codes issued by the Ontario Energy Board can be referenced on the Ontario Energy Board website.*~~ *This Code applies to electrical equipment and electrical installations used in the generation of electrical power or energy intended for sale or distribution to the public. Where electrical equipment and associated systems of the generating stations are under Federal or other Provincial jurisdictions (such as Technical Standard and Safety Authority "TSSA", Canadian Nuclear Safety Commission "CNSC", etc.), these electrical equipment and associated control systems are outside of the Scope of this Code.* **Suggestion for Improvement:** Suggested text in yellow. This Code applies to electrical equipment and electrical installations used in the generation of electrical power or energy intended for sale or distribution to the public.		

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	The Electrical Safety Authority (ESA) is the authority having jurisdiction with respect to this code. In the event of any perceived or real conflict or inconsistency between the codes at the federal, provincial and municipal levels, the electrical power operator shall consult with those authorities having jurisdiction at the nuclear facilities (such as the Canadian Nuclear Safety Commission [CNSC]) to determine the approach to resolve the issue. **Alternative Proposal:** **Comments:**		

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Licensed Generator (Ontario Power Generation) **Comment 1**	**OESC Code Rule:** Rule 2-000 a), amended **Support/Oppose:** Oppose removal of generator exemption from the OESC Code Rule **Rationale:** The OESC focuses on Residential, Commercial and Industrial applications. Installations for Generation, Transmission and Distribution have not historically contributed to the content in the Code because they are exempt, however, OPG has used the OESC as the design standard or followed or exceeded the intent of the Code where possible. As written, the concern is the Code will lead to technical debate over the applicability to installations used exclusively for generation. Considerable amendments to the Code will be required to apply to unique	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have been made based on the submitted comments.	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-001 - Rule 2-000.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	generation installations and systems previously exempted and to further recognize standards on electric utility workplace electrical safety absent from the current edition. **Suggestion for Improvement:** Modify current Ontario Amendment to Rule 2-000 a) and modify Subrule a) iii). 2-000 Scope (see Appendix B) This Code does not apply to a) electrical equipment and electrical installations used exclusively in the generation, transmission, or distribution of electrical power or energy intended for sale or distribution to the public as specified in Item i), or ii), or iii), ~~except where the Ontario Energy Board requires an authorization to connect from the Electrical Safety Authority in accordance with Part V of the Ontario Energy Board Act, 1998:~~ i) the distributor is licensed to own or operate the distribution system under Part V of the Ontario Energy Board Act,1998; or ii) the transmitter is licensed to own or operate the transmission system under Part V of the Ontario Energy Board Act, 1998; or iii) the generator is licensed to own or operate the generation system and ~~or~~ is licensed to provide ancillary services for sale through IESO-administered markets ~~or directly to another person,~~ under Part V of the Ontario Energy Board Act, 1998; No changes in Subrules b), c), d), e), f), g) and h **Alternative Proposal:** Allow representation from generators to join OESC review committees/sub-committees and provide feedback to amend the Code with generators utility input. Until such time the exemption should remain. **Comments:**	Bulletin 2-28-*, published in Ontario since 2021, clarifies that authorization to connect is required for licensed generators by the Ontario Energy Board Act and its regulations. Electrical installations (as defined in the OESC) in generation facilities are required to follow all OESC requirements, including but not limited to notifications, plan review submissions, ground potential rise (GPR) studies, etc. ESA's presence at generation facilities over the years, coupled with their service programs with specific generators, has played a pivotal role in ensuring safe electrical installations at these facilities.	

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Licensed Generator (Ontario Power Generation) **Comment 2**	**OESC Code Rule:** Rule 2-000 a), amended **Support/Oppose:** Oppose removal of generator exemption from the OESC Code Rule **Rationale:** The description of change suggests the ESA's concern is focused on Distributed Energy Resources. While the Appendix B Note to Rule 2-000 a) is modified to acknowledge equipment under Federal or Provincial jurisdictions for safety and nuclear, there is no acknowledgement of the challenges this rule change will create for generators to comply with other Authorities Having Jurisdiction (AHJ) over the reliability and design of the electricity system. **Suggestion for Improvement:** Modify current Ontario Amendment to Rule 2-000 a) and modify Subrule a) iii). 2-000 Scope (see Appendix B) This Code does not apply to a) electrical equipment and electrical installations used exclusively in the generation, transmission, or distribution of electrical power or energy intended for sale or distribution to the public as specified in Item i), or ii), or iii), ~~except where the Ontario Energy Board requires an authorization to connect from the Electrical Safety Authority in accordance with Part V of the Ontario Energy Board Act, 1998:~~ i) the distributor is licensed to own or operate the distribution system under Part V of the Ontario Energy Board Act,1998; or ii) the transmitter is licensed to own or operate the transmission system under Part V of the Ontario Energy Board Act, 1998; or iii) the generator is	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have been made based on the submitted comments. Bulletin 2-28-*, published in Ontario since 2021, clarifies that authorization to connect is required for licensed generators by the Ontario Energy Board Act and its regulations. Electrical installations (as defined in the OESC) in generation facilities are required to follow all OESC requirements, including but not limited to notifications, plan review submissions, ground potential rise (GPR) studies, etc.	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-001 - Rule 2-000.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	licensed to own or operate the generation system and ~~or~~ is licensed to provide ancillary services for sale through IESO-administered markets ~~or directly to another person,~~ under Part V of the Ontario Energy Board Act, 1998; No changes in Subrules b), c), d), e), f), g) and h **Alternative Proposal:** Licensed generators connected to Bulk Electric System or Bulk Power System facilities remain exempt from the code and/or are not required to obtain Connection Authorization. (i.e. a tiered system for licensed generators) Or Establish a set of principles that can be used to identify electrical systems that are integral and a direct part of the electricity generation process that are excluded from the scope of the Code **Comments:**	ESA's presence at generation facilities over the years, coupled with their service programs with specific generators, has played a pivotal role in ensuring safe electrical installations at these facilities.	

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Licensed Generator (Ontario Power Generation)	**OESC Code Rule:** Rule 2-000 a), amended **Support/Oppose:** Oppose removal of generator exemption from the OESC Code Rule **Rationale:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	Based on the comments received, this Ontario Amendment proposal has been revised.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Comment 3	The proposed amendments to Rule 2-000 a) do not provide rationale for the continued exemption of transmitters and distributers of electrical power. The concern is transmitters and distributers are permitted to be self regulating when generators, who operate and maintain similar electrical equipment, are regulated by the ESA. It is unclear how the Transmission System Code and Distribution System Code are regarded as safety regulations and/or supercedes the OESC. **Suggestion for Improvement:** Modify current Ontario Amendment to Rule 2-000 a) and modify Subrule a) iii). 2-000 Scope (see Appendix B) This Code does not apply to a) electrical equipment and electrical installations used exclusively in the generation, transmission, or distribution of electrical power or energy intended for sale or distribution to the public as specified in Item i), or ii), or iii), ~~except where the Ontario Energy Board requires an authorization to connect from the Electrical Safety Authority in accordance with Part V of the Ontario Energy Board Act, 1998:~~ i) the distributor is licensed to own or operate the distribution system under Part V of the Ontario Energy Board Act,1998; or ii) the transmitter is licensed to own or operate the transmission system under Part V of the Ontario Energy Board Act, 1998; or iii) the generator is licensed to own or operate the generation system and ~~or~~ is licensed to provide ancillary services for sale through IESO-administered markets ~~or directly to another person,~~ under Part V of the Ontario Energy Board Act, 1998; No changes in Subrules b), c), d), e), f), g) and h **Alternative Proposal:**	The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have been made based on the submitted comments. Bulletin 2-28-*, published in Ontario since 2021, clarifies that authorization to connect is required for licensed generators by the Ontario Energy Board Act and its regulations. Electrical installations (as defined in the OESC) in generation facilities are required to follow all OESC requirements, including but not limited to notifications, plan review submissions, ground potential rise (GPR) studies, etc. ESA's presence at generation facilities over the years, coupled with their service programs with specific generators, has played a pivotal role in ensuring safe electrical installations at these facilities.	2024-OA-001 - Rule 2-000.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Ensure regulatory symmetry between generators, transmitters and distributers **Comments:**		

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Licensed Generator (Ontario Power Generation) **Comment 4**	**OESC Code Rule:** Rule 2-000 a), amended **Support/Oppose:** Oppose removal of generator exemption from the OESC Code Rule **Rationale:** In parallel with the establishment of OPG, the ESA was established on April 1, 1999 with the replacement of the Power Corporation Act by the Electricity Act 1998. Prior to the establishment of the ESA, the Electrical Inspection function of the former Ontario Hydro fulfilled many of the roles and responsibilities which are now the mandate of the ESA. It is recognized that electrical safety is of utmost importance and must not be compromised in the operation of OPG facilities, and therefore the OESC is used as the design standard for electrical installations whenever applicable. However, existing nuclear and non-nuclear OPG facilities were built to Ontario Hydro Standards. Upon establishment of OPG and the ESA, it was recognized that applications used exclusively for generating electricity did not align with the Electrical Safety Code. It is	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have been made based on the submitted comments. Bulletin 2-28-*, published in Ontario since 2021, clarifies that authorization to connect is required for licensed generators by the Ontario Energy Board Act and its regulations. Electrical	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-001 - Rule 2-000.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	understood that the Code is not retroactive to installed equipment and systems, however the proposed amendments will require new installations and modifications to existing facilities to comply with the Code. Historically exempted grounding, generator protections, station service, cable management, and emergency standby systems would require significant infrastructure modifications. Considering recently announced projects such as the Pickering and Sir Adam Back 2 refurbishment projects, the impact to the ratepayers of Ontario is substantial. Without a generator exemption, the concern is varied interpretation of the Code will introduce delay to project schedules as there is no defined process for managing deviations to the Code and special permission from the ESA is required prior to commencement of work. **Suggestion for Improvement:** Modify current Ontario Amendment to Rule 2-000 a) and modify Subrule a) iii). 2-000 Scope (see Appendix B) This Code does not apply to a) electrical equipment and electrical installations used exclusively in the generation, transmission, or distribution of electrical power or energy intended for sale or distribution to the public as specified in Item i), or ii), or iii), ~~except where the Ontario Energy Board requires an authorization to connect from the Electrical Safety Authority in accordance with Part V of the Ontario Energy Board Act, 1998:~~ i) the distributor is licensed to own or operate the distribution system under Part V of the Ontario Energy Board Act,1998; or ii) the transmitter is licensed to own or operate the transmission system under Part V of the Ontario Energy Board Act, 1998; or iii) the generator is licensed to own or operate the generation system and ~~or~~ is licensed to provide	installations (as defined in the OESC) in generation facilities are required to follow all OESC requirements, including but not limited to notifications, plan review submissions, ground potential rise (GPR) studies, etc. ESA's presence at generation facilities over the years, coupled with their service programs with specific generators, has played a pivotal role in ensuring safe electrical installations at these facilities.	

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	ancillary services for sale through IESO-administered markets ~~or directly to another person,~~ under Part V of the Ontario Energy Board Act, 1998; No changes in Subrules b), c), d), e), f), g) and h **Alternative Proposal:** Establish a set of principles that can be used to identify electrical systems that are integral and a direct part of the electricity generation process that are excluded from the scope of the Code or excluded from connection authorization to the IESO controlled grid by the ESA. **Comments:**		

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Licensed Generator (Bruce Power) **Comment 1**	**OESC Code Rule:** Rule 2-000 a), amended **Support/Oppose:** Oppose **Rationale:** The OESC focuses on Residential and Commercial and industrial applications. Large Generators, Transmitters and Distributors have not historically contributed to the content in the code because they are exempt. The rule of the code should not change without generator/utility representation contributing/providing feedback/amending the code to ensure applicability to utilities as opposed to industry. **Suggestion for Improvement:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-001 - Rule 2-000.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Maintain generator exemption and remove connection authorization requirement for generators that comply with legacy Ontario Hydro or other legacy design and electrical standards. **Alternative Proposal:** Allow generators to join OESC review committees/sub-committees and provide feedback to amend the code with generators utility input. Until such time the exemption should remain. **Comments:**	been made based on the submitted comments. Bulletin 2-28-*, published in Ontario since 2021, clarifies that authorization to connect is required for licensed generators by the Ontario Energy Board Act and its regulations. Electrical installations (as defined in the OESC) in generation facilities are required to follow all OESC requirements, including but not limited to notifications, plan review submissions, ground potential rise (GPR) studies, etc. ESA's presence at generation facilities over the years, coupled with their service programs with specific generators, has played a pivotal role in ensuring safe electrical installations at these facilities.	

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	OESC Code Rule:		

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended
Description of Change: Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.

Submitted by	Stakeholder Comment	ESA response	Proposed change
Ontario Licensed Generator (Bruce Power) **Comment 2**	Rule 2-000 a), amended **Support/Oppose:** Oppose **Rationale:** Legacy Ontario Hydro Stations were built to our Ontario Hydro Standards at the time and plants designed to these standards have demonstrated 40+ years of safe operation. These Ontario Hydro standards do not align with the modern electrical safety code and full compliance will have technical feasibility issues and financial impacts. Oppose **Suggestion for Improvement:** Modify current Ontario Amendment to Rule 2-000 a) and modify Subrule a) iii). 2-000 Scope (see Appendix B) This Code does not apply to a. electrical equipment and electrical installations used exclusively in the generation, transmission, or distribution of electrical power or energy intended for sale or distribution to the public as specified in Item i), or ii), or iii), ~~except where the Ontario Energy Board requires an authorization to connect from the Electrical Safety Authority in accordance with Part V of the Ontario Energy Board Act, 1998:~~ i) the distributor is licensed to own or operate the distribution system under Part V of the Ontario Energy Board Actc,1998; or ii) the transmitter is licensed to own or operate the transmission system under Part V of the Ontario Energy Board Act, 1998; or iii) the generator is licensed to own or operate the generation system and ~~or~~ is licensed to provide ancillary services for sale through IESO-administered markets ~~or directly to another person,~~ under Part V of the Ontario Energy Board Act, 1998;	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have been made based on the submitted comments. Bulletin 2-28-*, published in Ontario since 2021, clarifies that authorization to connect is required for licensed generators by the Ontario Energy Board Act and its regulations. Electrical installations (as defined in the OESC) in generation facilities are required to follow all OESC requirements, including but not limited to notifications, plan review submissions, ground potential rise (GPR) studies, etc.	Based on the comments received, this Ontario Amendment proposal has been revised.  2024-OA-001 - Rule 2-000.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	No changes in Subrules b), c), d), e), f), g) and h Remove the amendment to Appendix B in relation to generating stations under federal regulation. ~~This Code applies to electrical equipment and electrical installations used in the generation of electrical power or energy intended for sale or distribution to the public. Where electrical equipment and associated systems of the generating stations are under Federal or other Provincial jurisdictions (such as Technical Standard and Safety Authority "TSSA", Canadian Nuclear Safety Commission "CNSC", etc.), these electrical equipment and associated control systems are outside of the Scope of this Code.~~ **Alternative Proposal:** Generators connected to Bulk Electric System or Bulk Power System facilities remain exempt. (i.e. a tiered system for licensed generators) Or Establish defined determinations where connection authorization is required or exempted and establish where ESA requires inspection vs. engineering sign off by customer **Comments:**	ESA's presence at generation facilities over the years, coupled with their service programs with specific generators, has played a pivotal role in ensuring safe electrical installations at these facilities.	

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Licensed Generator (Bruce Power) **Comment 3**	**OESC Code Rule:** Rule 2-000 a), amended **Support/Oppose:** Oppose **Rationale:** Oppose Proposal Number 2024-OA-001 Bruce Power has a service contract with the ESA to perform inspections on new electrical construction. The arrangement has been in place for many years and has led to safe and reliable electrical power generation. Based on this, there is no apparent reason to change the ESA's responsibilities in relation to enforcement of the OESC at generation facilities. **Suggestion for Improvement:** Remove the amendment to Appendix B in relation to generating stations under federal regulation. **Alternative Proposal:** This Code applies to electrical equipment and electrical installations used in the generation of electrical power or energy intended for sale or distribution to the public. ~~Where electrical equipment and associated systems of the generating stations are under Federal or other Provincial jurisdictions (such as Technical Standard and Safety Authority "TSSA", Canadian Nuclear Safety Commission "CNSC", etc.), these electrical equipment and associated control systems are outside of the Scope of this Code.~~ **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have been made based on the submitted comments. Bulletin 2-28-*, published in Ontario since 2021, clarifies that authorization to connect is required for licensed generators by the Ontario Energy Board Act and its regulations. Electrical installations (as defined in the OESC) in generation facilities are required to follow all OESC requirements, including but not limited to notifications, plan review submissions, ground potential rise (GPR) studies, etc.	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-001 - Rule 2-000.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
		ESA's presence at generation facilities over the years, coupled with their service programs with specific generators, has played a pivotal role in ensuring safe electrical installations at these facilities.	

2024-OA-001: Rule 2-000 a), amended **Description of Change:** Amend existing Ontario Amendment to add licensed generators in the Scope of OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** Rule 2-000 a), amended **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:** MLITSD focus is on worker safety during installation of electrical system. and not on compliance of the installation with OESC technical standards for electrical installations, products and equipment. MLITSD does not enforce OESC ESA permit requirements nor authorizations for connection of a system to the grid. We focus on who is doing the work and protecting workers from exposure to energized hazards. **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have been made based on the submitted comments.	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-001 - Rule 2-000.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-004 1), amended **Support/Oppose:** Oppose **Rationale:** Good afternoon, after reading the proposed amendment to the rule, requiring 48 hours to apply for electrical permit, should remain in the system to allow us contractors doing service work who do not have access to a phone or online planning during a customer visit for a permit application (phone calls up to 30 minutes wait, out of range or slow internet access, etc) With the amount of service calls taken care of in the course of 8 to 10 hour workday, adding a permit to every small service call would only create more problems and delays for some contractors and their service employees, and could result in more underground work. I do not understand why this rule cannot remain as is at 48 hours after the work has commenced or bare minimum 24 hours to allow contractors to file for permits the day after such service calls have been taken care of. Please reconsider leaving this rule for service calls. **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-004 1) **Support/Oppose:** Completely oppose **Rationale:** We don't always fully know what the job entails until we get there so we won't know what to take the permit out for. The customer may also change the scope of work once we're there. We will then be the ones to spend the extra time to amend permits. We had to call in to amend a permit since we couldn't do that on-line. Also, it's hard to take out a permit on jobs that last for more than a few days as again, we don't know the full scope of the work. The customer may postpone or even cancel the job the day or night before or even the morning of the scheduled work. We will then end up having to reschedule or pay for the inspection even though the work will not be completed since there's no way our customer will pay if they're not having the work done. We are a small business as are the majority of electrical contractors & we will be the ones that have to spend the extra time amending permits, trying to contact the inspector to cancel a scheduled inspection or end up paying for permits for work that has been cancelled. We don't see how this will catch & cut down on contractors who are working underground. They could be using unmarked vehicles so how will anyone know they're doing work. This just causes more work for the contractors who are doing the work legally. **Suggestion for Improvement:** Don't change the 48 hour window. Not sure what can be done to cut down on the underground economy but it doesn't seem right to put it on the back of contractors who are following the rules. It's just more red tape to deal with. **Alternative Proposal:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Comments:		

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-004 1) **Support/Oppose:** Oppose **Rationale:** Online system for notifications is not always intuitive and still requires phone calls in some instances. ESA rationale also refers to wanting to criminalize more people. **Suggestion for Improvement:** Leave the 48 hour window in place **Alternative Proposal:** Move to a universal “Electrical Work” notification **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	ESA decided not to proceed with the proposal.

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	OESC Code Rule:		

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	2-004 1) **Support/Oppose:** Oppose **Rationale:** We as contractors need and use the 48hr often. I acknowledge the added difficulty to investigate but we as good contractors need not bear extra burdens because it's harder and more work for the ESA inspector to investigate. The primary goal is to get the work performed safely, and inspected. **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	ESA decided not to proceed with the proposal.

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-004 1) **Support/Oppose:** Oppose **Rationale:** Removing 48hrs would be yet another Burden placed on	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Contractors, don't fix what isn't broken has nothing to do under ground economy if someone is abusing use AMPS **Suggestion for Improvement:** Leave 2-004 as is **Alternative Proposal:** Leave as is **Comments:**	The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-004 1) **Support/Oppose:** Oppose **Rationale:** During emergency service calls (after hours), the focus should be on correcting/repairing the issue and not on clerical/administrative work prior to commencing work. Clerical/administrative work, such as filing for a permit, can be completed during the next business day, eliminating potential safety hazards due to fatigue caused by dealing with the situation longer than necessary due to added clerical/administrative work. **Suggestion for Improvement:** Allow the 48 hour rule to remain in the code. Further clarify the rule, such as permit prior to commencement of work for new construction, renovation, or any other pre-planned	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	construction work, while allowing 48 hours during unplanned work. Occupancy Permit require submission of a Certificate of Acceptance from the ESA. **Alternative Proposal:** New law that requires electrical permits to be submitted as part of the building permit process. Less focus on LEC, as new construction and renovations that require building permits also require the submission of a Certificate of Acceptance from the ESA to receive Occupancy Permits. More focus on enforcement of work being performed by non-licensed contractors. **Comments:**		

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-004 1) **Support/Oppose:** Oppose **Rationale:** Will increase burden on compliant contractors **Suggestion for Improvement:** **Alternative Proposal:** Leave as is **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	I am opposing the proposed change to rule 2-004 1), commonly know by LEC's as the 48 hour rule. It is my understanding that the reason for removing this 48 hour rule is to help eliminate the underground economy. Changing this rule will do very little to change the underground economy, but what it will do is increase the burden on many small LEC's. The current notification system in place has its limitations as we all know, one of which is the inability to edit permits. If the 48 hour rule were to be eliminated, this would require LEC's to file for a notification before getting to site, which can be very difficult using the on line system if you are in an area with poor cell service. There are many instances where we do not know the full scope of the work involved, this is especially true in the service sector. Having the proposed system would require us to take out a notification based on what the customer has told us, which may not be what is really required. Since we only know what the customer has told us, we use that information, should we need to change the details of the notification number later we must call into the call center which can be time consuming and is one reason that many LEC's wait for small jobs and service calls to be completed before applying for the notification number. This has no bearing on how the work is done as compliant contractors will always do their best to do quality and compliant work. With the majority of LEC's in the province being smaller (less than 5 man) shops, they do not have the administration available to get all these notifications taken out before the work is done. The most important part of a job is to take care of your customer and get their situation resolved. In my opinion, the administration portion is secondary. Should ESA inspectors come across a LEC that appears to be "gaming" the system, then put that LEC on 100% inspection as that is probably where they should be. Changing this rule will just make more work for compliant LEC's, I hope that you reconsider changing this rule and leave it as it is	proposal and the OPCC has endorsed this recommendation.	

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Contractor Association (ECAO)	**OESC Code Rule:** 2-004 1) **Support/Oppose:** **Rationale:** **Suggestion for Improvement:** **Alternative Proposal:** **Comments:** I am writing on behalf of the Electrical Contractors' Association of Ontario (ECAO) to express our strong objection to the proposed deletion of the 48-hour easement for filing electrical work notification. While we understand the ESA's stated desire to improve efficiency and address the underground economy, we believe this proposal creates unnecessary hardship for small contractors and service sector businesses without effectively tackling the intended issue. Firstly, the ability to file a notification within 48 hours of starting work provides valuable flexibility for smaller businesses and, more particularly, electrical contractors performing service and maintenance work. Unexpected scheduling changes, last-minute service calls, and emergency repairs are a reality in the electrical service industry. Removal of this 48-hour notification easement could lead to situations where qualified contractors are forced to choose between non-compliance and turning down legitimate work. Secondly, the assumption that a 48-hour filing window directly contributes to the underground economy lacks evidence. Unlicensed and uninsured electrical work is often a deliberate effort to avoid regulations altogether, not a consequence of a minor administrative	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	delay. Respectfully, the ESA's resources would be better directed towards improved detection and enforcement strategies for these bad actors. We firmly believe that a collaborative approach, combined with targeted enforcement efforts, will be far more effective in addressing the underground economy than placing undue burdens on legitimate businesses. Thank you for considering our concerns. I would be happy to discuss this matter further and explore potential solutions that ensure both public safety and a fair operating environment for all electrical contractors.		

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-004 1) **Support/Oppose:** Oppose **Rationale:** The rationale for this proposal is not believable. Or, more accurately, the importance of this change in the context of the rationale is not believable. This is not about curtailing the underground economy, nor is it about safety: it's about taking away grey zones to make inspector lives easier. This is another example over-bureaucratization. The proposed change treats LECs like children. To equate an LEC with an unlicensed contractor for failing to be 100% timely in taking permits is insulting and it undermines respect for the ESA and the code. This is a	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	common thread in recent changes: LECs (and inspectors) have less and less opportunity to exercise good judgement. If you take away all such opportunity you will scare away the best contractors and the best inspectors. Nobody wants to be a robot and people with good brains and the desire to use them will be attracted to other fields instead. **Suggestion for Improvement:** If the problem is *abuse* of the 48 hour grace period, then tackle the abuse, not the grace period **Alternative Proposal:** **Comments:**		

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-004 1), amended **Support/Oppose:** Oppose **Rationale:** 48 hours is required to accurately report on work performed. Removing the 48 hours for a notification will lead to much more administrative time correcting work performed specifically for those in the service call sectors. Often a service call is performed and leads to extra work not mentioned by customers. This would lead to mandatory calls to ESA customer service to	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	change the work listed on the notification and will require more customer service representatives to handle much higher volume of calls. **Suggestion for Improvement:** Keep rule 2-004 1) as written **Alternative Proposal:** If we must lose the ability to keep this rule intact, an alternative quick notification must be applied. Something simple like on the app or a quick solution from ESA to say LEC performing (insert residential, commercial or industrial) work at this address" Alternatively, allow us to modify our notifications online so we can accurately list the work performed. DO NOT rely on the ESA mobile app, we have areas where this app does not work at all in Northern Ontario, and in addition, at times we work where there is also no available cell signal to call out to customer service, further exasperating this instant notification amendment. It's not fair for rural workers and smaller contractors that do not have administration staff like ourselves. **Comments:**	this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-004 1) **Support/Oppose:** **Rationale:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Suggestion for Improvement: **Alternative Proposal:** **Comments:** The largest issue, and I'm sure you will get lots of feedback, is the elimination of the 48 hours for a work notification. This is the single most disruptive amendment for the collection of LECs. This will not help finding those participating in the underground economy, it will only add pressure to LECs and small business owners alike with a heavier administrative burden. We still operate in a province where there is no phone signals, no internet available, and where the ESA mobile app does not work. There are off grid specializing LECs who have to fly in or boat in to the work site and have zero communication. The workers may not even know the entire scope of the work and the scope of the work changes regularly. This 48 hours must remain intact.	The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** 2-004 1) **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-002: 2-004 1), amended **Description of Change:** Amend Ontario amendment to delete the 48 hour easement for filing a notification.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	MLITSD requirement for notice of project is not specifically triggered by electrical installations. Consequently, ESA notice requirements have no effect on MLITSD enforcement of NOP requirements **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). At this time, based on comments received, ESA has decided not to proceed with the proposal and the OPCC has endorsed this recommendation.	

2024-OA-003: Rule 2-010, new **Description of Change:** Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-010 **Support/Oppose:** Oppose **Rationale:** The addition of EVSEs to residential settings will have more of an effect on the grid than adding a few to commercial/industrial establishments **Suggestion for Improvement:** Follow normal existing procedures for planning and approving electrical work **Alternative Proposal:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, the requirements for plan review for "two electrical vehicle supply	Based on the comments received, this Ontario Amendment proposal has been revised.  2024-OA-003 - Rule 2-010.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-003: Rule 2-010, new **Description of Change:** Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Comments:	equipment" has been deleted and the threshold for plan review submission remains at 20% of the rating of the service equipment.	

2024-OA-003: Rule 2-010, new **Description of Change:** Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Municipal Government (City of Pickering)	**OESC Code Rule:** 2-010 1)f)i) **Support/Oppose:** Oppose **Rationale:** The current rationale does not support why the installation of more than two EVSE is relevant and should be a limiting factor. All of the examples provided exceed two EVSE but are below the 20% of service rating threshold, and are identified as not requiring a plan submission. In fact, a greater number of lower-nameplate rating EVSE rather than a single (or two) larger EVSE increases diversity and reduces the likelihood of all EVSE being at 100% load at once. This proposed item unnecessarily impedes installation of multiple Level 2 (lower nameplate rating) EVSE. **Suggestion for Improvement:** Delete proposed item 2-010 1)f)i). Retain proposed item 2-010 1)f)ii) **Alternative Proposal:**	Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, the requirements for plan review for "two electrical vehicle supply equipment" has been deleted and the threshold for plan review submission remains at 20% of the rating of the service equipment.	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-003 - Rule 2-010.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-003: Rule 2-010, new **Description of Change:** Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Comments:		

2024-OA-003: Rule 2-010, new **Description of Change:** Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 2-010 **Support/Oppose:** Oppose **Rationale:** I agree for larger EVSE installations, plan review is appropriate, however, eliminate the i) proposal of the installation involves more than 2 EVSE. Keep the 20% of the service, that is a good target, however, I would add to that: Load shared across all EVSE is equal to or greater than 20% of the service that supplies it. Load sharing is in place and easily implemented, we should not be looking at nameplate versus it's use and actual power consumed if we are to apply plan review. The field inspection can ask for proof of the load sharing settings applied to the EVSE if this is a concern. Load sharing within a single dwelling is ideal for multiple EVSEs to share the equivalent of one EVSE circuit or offer multiple charging locations, while not changing the actual load to the service. This needs to be added here, much the same way a device can be used to eliminate an	Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, the requirements for plan review for "two electrical vehicle supply equipment" has been deleted and the threshold for plan review submission remains at 20% of the rating of the service equipment.	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-003 - Rule 2-010.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-003: Rule 2-010, new **Description of Change:** Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	EVSE from load calculation by monitoring the service's draw, load sharing should be permitted to only have the total ACTUAL load as added to the service. **Suggestion for Improvement:** I believe 20% may be too low, I would raise that bar to 30% of actual load, not nameplate. There are expandable power modules on the market whose nameplate may say 120 kW for example, but they are actually set, loaded, and breaker sized for 80 kW. We have to look at this differently or the OESC will constantly fall behind and play catch up. **Alternative Proposal:** Defining the kW totals that would trigger plan review, while also defining the service sizes as viewed as appropriate from the committees would be acceptable in my view. There is too much generalization in the OESC as there is, which would lead to additional bulletins. Let's avoid that and write a well defined rule versus a catch all. ESA is viewed as anti EV and anti green energy by many in the public due to extremely strict code rules. If we start triggering plan review at every EVSE install outside of a single dwelling, this only adds costs to a project and adds to that reputation. **Comments:**		

2024-OA-003: Rule 2-010, new **Description of Change:** Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
EV Charger Retailer	**OESC Code Rule:** 2-010 f)	Ontario Electrical Safety Code; the code is better with your participation.	Based on the comments received, this Ontario

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-003: Rule 2-010, new **Description of Change:** Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Support/Oppose: Oppose **Rationale:** While we appreciate the addition of the provision in 2-010(f), we are concerned that the proposed threshold set for which installations would be exempt from having to submit plans before any electrical installation can commence, may cause delays in the deployment of smaller EV charging infrastructure deployment sites under certain threshold of power at a critical time when infrastructure is needed to be deployed in a timely and efficient manner. For larger projects EV charging or projects with higher capacity, we understand the need for the submission of plans; however, believe that for smaller projects, both residential and commercial, such requirements could cause delays to project deployment. **Suggestion for Improvement:** Suggest that the exemptions in section (f) are expanded to all charging use cases, not just single-family dwelling and changing the threshold for exemptions from two electric vehicle supply equipment, to a threshold of 50kW. **Alternative Proposal:** f) any installation of electrical vehicle supply equipment, with the exception of a ~~single dwelling unit~~, where: i) the installation involves more than ~~two electrical vehicle supply equipment~~ **50kW of new load**; or ii) the total nameplate rating(s) of the electrical vehicle supply equipment including both existing and new is greater than 20% of the rating of the service equipment; or **Comments:**	The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, the requirements for plan review for "two electrical vehicle supply equipment" has been deleted and the threshold for plan review submission remains at 20% of the rating of the service equipment.	Amendment proposal has been revised. 2024-OA-003 - Rule 2-010.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-003: Rule 2-010, new **Description of Change:** Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** 2-010 **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:** MLITSD construction regulation focuses on safety of workers during installation electric vehicle supply equipment (EVSE). Calculations about system capacity to handle the extra load once the EVSE is up and running would be done during design phase and not construction phase. Any requirements for work planning would pertain to risk assessment and hazard mitigation plan associated with the job related tasks required to install EVSE **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, the requirements for plan review for "two electrical vehicle supply equipment" has been deleted and the threshold for plan review submission remains at 20% of the rating of the service equipment.	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-003 - Rule 2-010.pdf

2024-OA-004: Rule 2-010 1) e), amended **Description of Change:** 1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations. 2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	OESC Code Rule: 2-010 1) e),	Thank you for your engagement and valuable insight into the Ontario Electrical	

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
Licensed Electrical Contractor	**Support/Oppose:** Oppose **Rationale:** ESA rationale is in response to hypothetical changes made by others in the future and not to an actual need. Change for change sake **Suggestion for Improvement:** Make no change **Alternative Proposal:** Create a liability waiver for off grid work so the ESA doesn't get bogged down dealing with hunt, fish and sugar shacks **Comments:**	Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). Off-grid installations are some of the installations ESA is wanting to capture with the removal of "operating in parallel" as noted in rationale and are viewed by ESA as an increase to safety.	No change in the proposal. 2024-OA-004 - Rule 2-010 1) e).pdf

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
	OESC Code Rule: 2-010 1) e)	Thank you for your engagement and valuable insight into the Ontario Electrical	

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
Licensed Electrical Contractor	**Support/Oppose:** Oppose **Rationale:** Capacity of system may be too low, and wording is too vague which may cause undue financial hardship from costs incurred for engineering and ESA Plan Review processes for residential customers. Please note: a 100A, 240V, single phase AC residential service is only 24KW. You are proposing plan review for the equivalent of 41.6A at 240V, single phase AC. Is that really necessary? **Suggestion for Improvement:** Review capacity requirements and raise minimum KW rating. Further clarify if such plan review requirements are necessary for stand-alone and off-grid systems that do not feed back into the electricity grid. Clarify requirements for off-grid and stand-alone systems as well as grid feed-in systems. **Alternative Proposal:** I don't need plan review to put in a 600A single phase service (which at 240V is 144KW) but I need plan review for 41.6A at 240V single phase generating system? Limit should be increased to no less than 24KW. **Comments:**	Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). A 10 kW system is not much different than a 20 kW therefore the related safety concerns still exist at the 10 kW rating. These systems are becoming more complex with more sources being interconnected and not just at larger facilities, but now at single dwellings. As such, ESA will keep the current "in excess of 10 kW" rating.	No change in the proposal. 2024-OA-004 - Rule 2-010 1) e).pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
Licensed Electrical Contractor	**OESC Code Rule:** 2-010 1) e) **Support/Oppose:** Oppose **Rationale:** I agree with the elimination of the OEB references, however, the 10 kW limit is too low. ESS and solar are modernizing and that 10 kW limit is dated. Tesla, to use as an example, has bi directional EVSE at 11.5 kW in their Gen3 wall connectors (thousands already installed), and Powerwall 3 base nameplate rating is 11.5 kW for home backup capabilities. These are not high risk installations as they are approved energy storage assemblies only installed by certified installers and not available to the general public. Plan review will see a very large increase to their workload, while the benefits are very minimal. Keep in mind this plan review would be triggered by the equivalent of one single loaded 15 amp circuit. A huge cost for very little reward other than monetary gain for ESA. **Suggestion for Improvement:** Ideally I would like to see plan review for ESS and renewables moved to 20 kW. I can see how ESA would not like that number, however with the growing energy needs of the province, such a number would be beneficial and I think we can agree a 10 kW system is not much different than a 20 kW this day and age. Much has changed in the industry with safe solutions to integrate solar and ESS technologies that do not involve tying into panel bus bars at the residential level (a limiting factor). With the use of backup interfaces at the residential level, integration of these systems are simple and typically are installed at the line side of the customer's panel. There would be export limitations required since Hydro One still limits net	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). A 10 kW system is not much different than a 20 kW therefore the related safety concerns still exist at the 10 kW rating. These systems are becoming more complex with more sources being interconnected and not just at larger facilities, but now at single dwellings. As such, ESA will keep the current "in excess of 10 kW" rating.	No change in the proposal. 2024-OA-004 - Rule 2-010 1) e).pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
	metering, but every manufacturer I used or trained for have this option programmable only for certified installers. Maybe adding a % of nameplate deviation would be wise rather than a hard set kW rating as well-committee discussion. **Alternative Proposal:** Add in bi directional EVSE as a defined ESS when connected to bi directional capable equipment. This I would limit to that 11.5 kW level as that is a safe L2 EVSE limit with the cable sizes and typical EVSE supplied circuits (2P60 breaker, 48 amps max). Should there be both EVSE bi directional charging AND ESS/solar intergrated, I would fully support and invite plan review to that. **Comments:**		

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
	OESC Code Rule: 2-010 1) e)	Thank you for your engagement and valuable insight into the Ontario Electrical	

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
Licensed Electrical Contractor	**Support/Oppose:** Oppose **Rationale:** The 10kW threshold for 'micro-scale' was created at a time when 10kW was an enormous installation, which only a handful of customers would want in the province. Now it is not only routine, but an unwelcome constraint for a large proportion of clients. Equipment is routine and installations are comprehensively covered by existing code sections. The definition of micro-scale should be increased to 20kW or 30kW, which aligns with leading jurisdictions. Further, the amendment rationale states that risk is increased owing to home-owner installation: This is an unfair assessment for clean energy systems: homeowners are permitted to do any electrical work – calling out off-grid technology is unjustified. If you want to target home-owner installations, then make the home-owners submit. Installation of common residential fossil fuel generators does not require plan approval, without size constraints. Lastly: Low Voltage Reports vary wildly based on the plans examiner, and the content is usually completely useless, consisting mainly of re-stating the code. In general, it's a bureaucratic step that costs time and money but provides little to no benefit. It's a reasonable step for large installations – 10kW is not a large installation. **Suggestion for Improvement:** Raise the threshold for Plan Approval from 10kW to 30kW.	Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). A 10 kW system is not much different than a 20 kW therefore the related safety concerns still exist at the 10 kW rating. These systems are becoming more complex with more sources being interconnected and not just at larger facilities, but now at single dwellings. As such, ESA will keep the current "in excess of 10 kW" rating.	No change in the proposal. 2024-OA-004 - Rule 2-010 1) e).pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
	OR Target the risk factors directly: set the threshold at 10kW UNLESS the work is being done by an LEC, in which case the threshold is 30kW. **Alternative Proposal:** e) any installations within the scope of Section 64 or bi-directional electrical vehicle supply equipment with an output rating in excess of 30 kW; or… **Comments:**		

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
Licensed Electrical Contractor	**OESC Code Rule:** 2-010 1) e) **Support/Oppose:** **Rationale:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	No change in the proposal. 2024-OA-004 - Rule 2-010 1) e).pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
	Suggestion for Improvement: **Alternative Proposal:** **Comments:** Good proposals on the most part, I feel ESA is missing the mark a bit on EVSE and ESS in regards to plan review limits, but also understand the importance of the safety of the industry. I would really like to see that 10 kW micro generation and ESS limit get increased, and realize it's based on a dead microfit standard that is acknowledged within the amendments. I feel it would be a mistake not to look at increasing that 10 kW threshold, just as it would be a mistake to not look at load shared EVSE and their actual loads versus nameplate at 100%. Both of these issues I raised are dated, and removes the agility that manufacturers give us with their product options, which leaves us further behind and much more costly to the customer in North America.	The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). A 10 kW system is not much different than a 20 kW therefore the related safety concerns still exist at the 10 kW rating. These systems are becoming more complex with more sources being interconnected and not just at larger facilities, but now at single dwellings. As such, ESA will keep the current "in excess of 10 kW" rating. The Ontario Energy Board's (OEB) Distribution System Code still references 10 kW as "microsize."	

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-004: Rule 2-010 1) e), amended
Description of Change:
1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** 2-010 1) e) **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:** This amendment pertains to d calculations and design of the system to ensure it meets technical standards of the OESC. This is beyond MLITSD CHSP worker safety mandate. Any engineered design drawings for the EVSE that pertain to safety of workers during the EVSE installation must be complied with on the project. **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC).	No change in the proposal. 2024-OA-004 - Rule 2-010 1) e).pdf

2024-OA-005: Rule 6-100 and 6-200, new
Description of Change: Add Ontario amendment to permit the use of meter-mounted transfer switches.

Submitted by	Stakeholder Comment	ESA response	Proposed change
Licensed Electrical Contractor	**OESC Code Rule:** 6-100 and 6-200 **Support/Oppose:**	Thank you for your engagement and valuable insight into the Ontario Electrical	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-005: Rule 6-100 and 6-200, new **Description of Change:** Add Ontario amendment to permit the use of meter-mounted transfer switches.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Support **Rationale:** This will greatly increase the ease of installing backup power **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and discussed with the Ontario Provincial Code Committee (OPCC). At this time, the OPCC has rejected the proposal, and based on this decision, the ESA has decided not to proceed with it. ESA will keep monitoring how this proposal is progressing on the National level.	

2024-OA-005: Rule 6-100 and 6-200, new **Description of Change:** Add Ontario amendment to permit the use of meter-mounted transfer switches.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 6-100 and 6-200 **Support/Oppose:** Support **Rationale:** Excellent addition to the OESC, there are other meter mounted transfer switches in the pipeline and approved in the US coming our way. Limiting to 200 amps is also wise. Good move! **Suggestion for Improvement:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and discussed with the Ontario Provincial	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-005: Rule 6-100 and 6-200, new **Description of Change:** Add Ontario amendment to permit the use of meter-mounted transfer switches.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Alternative Proposal: **Comments:**	Code Committee (OPCC). At this time, the OPCC has rejected the proposal, and based on this decision, the ESA has decided not to proceed with it. ESA will keep monitoring how this proposal is progressing on the National level.	

2024-OA-005: Rule 6-100 and 6-200, new **Description of Change:** Add Ontario amendment to permit the use of meter-mounted transfer switches.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Local Distribution Company (Hydro One Networks Inc)	**OESC Code Rule:** 6-100 and 6-200 **Support/Oppose:** Support **Rationale:** It's important to keep all relevant information together in the same clause and not force the user to hunt for all relevant information scattered throughout the book. **Suggestion for Improvement:** Add new subrule 5) to rule 6-200: "In accordance with the requirement of the supply authority." **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and discussed with the Ontario Provincial Code Committee (OPCC). At this time, the OPCC has rejected the proposal, and based on this decision, the ESA has decided not to proceed with it. ESA will	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-005: Rule 6-100 and 6-200, new **Description of Change:** Add Ontario amendment to permit the use of meter-mounted transfer switches.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
		keep monitoring how this proposal is progressing on the National level.	

2024-OA-005: Rule 6-100 and 6-200, new **Description of Change:** Add Ontario amendment to permit the use of meter-mounted transfer switches.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** 6-100 and 6-200 **Support/Oppose:** Support No conflict with reg 213/91 requirements **Rationale:** Agree with amendments for homeowner meter-mounted transfer switches on the line side to prevent back up power sources from backfeeding to the utility's grid and risking the safety of utility workers **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and discussed with the Ontario Provincial Code Committee (OPCC). At this time, the OPCC has rejected the proposal, and based on this decision, the ESA has decided not to proceed with it. ESA will keep monitoring how this proposal is progressing on the National level.	ESA decided not to proceed with the proposal.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-006: Rule 8-002; 8-106; Appendix B to Rule 8-106 10); and 8-500, amended **Description of Change:** Add Ontario Amendment to permit the use of other types of energy management systems in addition to electric vehicle energy management system (EVEMS).			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** 8-106 **Support/Oppose:** Support **Rationale:** Great update to include other loads of the home to fit in a smaller service. We often get requests of customers with 100 amp services wanting 200 amps, but the utility charges upwards of $15,000 for their end of the upgrade and is not financially viable, while the customer has energy needs that would exceed a load calculation. **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC).	No change in the proposal.  2024-OA-006 - Rule 8-106.pdf

2024-OA-006: Rule 8-002; 8-106; Appendix B to Rule 8-106 10); and 8-500, amended **Description of Change:** Add Ontario Amendment to permit the use of other types of energy management systems in addition to electric vehicle energy management system (EVEMS).			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Licensed Electrical Contractor	**OESC Code Rule:** Rule 8-002; 8-106; Appendix B to Rule 8-106 10); and 8-500, amended **Support/Oppose:** Support	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-006: Rule 8-002; 8-106; Appendix B to Rule 8-106 10); and 8-500, amended **Description of Change:** Add Ontario Amendment to permit the use of other types of energy management systems in addition to electric vehicle energy management system (EVEMS).			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Rationale: This is excellent and must be applied to *generation* as well. The wording supports this. This permits generic bus-bar loading management systems, consistent with the UL1741PCS equipment standard. Specifically, this change should permit energy management system (EMS) to satisfy 64-112 g) ie using an EMS to reduce the operating characteristics of connected generation to allow connecting that generation on a breaker compliant with sections e) or f). **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC).	No change in the proposal. 2024-OA-006 - Rule 8-106.pdf

2024-OA-006: Rule 8-002; 8-106; Appendix B to Rule 8-106 10); and 8-500, amended **Description of Change:** Add Ontario Amendment to permit the use of other types of energy management systems in addition to electric vehicle energy management system (EVEMS).			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** Rule 8-002; 8-106; Appendix B to Rule 8-106 10); and 8-500, amended **Support/Oppose:** Support No conflict with reg 213/91 requirements	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	No change in the proposal. 2024-OA-006 - Rule 8-106.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-006: Rule 8-002; 8-106; Appendix B to Rule 8-106 10); and 8-500, amended **Description of Change:** Add Ontario Amendment to permit the use of other types of energy management systems in addition to electric vehicle energy management system (EVEMS).			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Rationale: Agree with amendments to permit the use of newer technology for other types of energy management systems in addition to electric vehicle energy management system (EVEMS) **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC).	

2024-OA-007: Rule 8-202 3) d), new **Description of Change:** Add Ontario amendment to require the addition of electric vehicle supply equipment (EVSE) loads that are supplied from a panelboard within a dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** Rule 8-202 3) d), new **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:** Load calculations to determine the size of a panelboard inside a dwelling that supplies an EVSE are not within the jurisdiction of the MLITSD CHSP legislation. **Suggestion for Improvement:** **Alternative Proposal:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	No change in the proposal.  2024-OA-007 - Rule 8-202 3) d).pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-007: Rule 8-202 3) d), new **Description of Change:** Add Ontario amendment to require the addition of electric vehicle supply equipment (EVSE) loads that are supplied from a panelboard within a dwelling unit.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Comments:		

2024-OA-008: Rule 10-004 and 10-116 6) and Definition, delete **Description of Change:** Delete Ontario Amendment (OA) special terminology for “Effectively grounded metal structural frame of a building” in Rule 10-004 and delete OA to Rule 10-116 6) and associated Appendix B note.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** Rule 10-004 and 10-116 6) and Definition, delete **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:** Change in terminology to broaden the scope of adequate grounding does not affect grounding requirements under O .Reg 213/91 **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	No change in the proposal. PDF 2024-OA-008 - Rules 10-004 and 10-116 6)

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

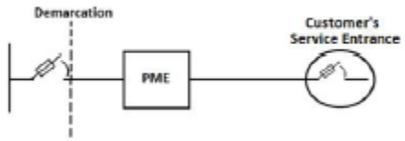
2024-OA-009: Rule 36-200, new
Description of Change: Add Ontario amendment to permit Supply Authority owned primary metering equipment installed ahead of the consumers service equipment.

Submitted by	Stakeholder Comment	ESA response	Proposed change
Local Distribution Company (Utilities Standards Forum, Ontario Electricity Distributors)	**OESC Code Rule:** 36-200 **Support/Oppose:** Oppose **Rationale:** There is a difference between ownership of equipment and where the equipment and is located. There are various scenarios where the supply authority may be the owner, or controller of the equipment, and in each case where the equipment is located is another matter. To clarify, the Suggestion for Improvement is to replace the word owner with controlled in 2) of the amendment, as shown in blue I have spoken to a few LDCs. I hope this helps understand what LDCs are facing: The PME contains LDC measurement instrumentation. The PME is owned by the customer as it is installed specifically for the customer vs generic for the system and owned by the LDC (and going into rate based). The PME sits on the supply side of demarcation as the LDCs need to access the LDC's measurement instrumentation. Rationale for having the PME located on the supply side of the customer service entrance is as follows: • Improves ease of access for us • Eliminates risk of PME failure causing damage to customers switchgear • Eliminates risk of Customer switchgear equipment failure resulting in damage to our PME • Improves safety for our employees, they do not have to enter switchgear which would be maintained by the customer (it is unknown if it meets LDCs maintenance standards) This diagram along with the above shows the purpose of the amendment to 6-402 (2), allowing this installation.	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). A new Appendix B note with the suggested diagram has been added based on the submitted comments.	Based on the comments received, this Ontario Amendment proposal has been revised.  2024-OA-009 - Rule 36-200.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-009: Rule 36-200, new **Description of Change:** Add Ontario amendment to permit Supply Authority owned primary metering equipment installed ahead of the consumers service equipment.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	 This explains what the reality is and what we want to ensure is possible going forward. A goal is not always meant to be reached, it often serves simply as something to aim at **Suggestion for Improvement:** Service equipment and metering location 1) Service equipment shall be installed in a location that complies with the requirements of the supply authority and, in the case of a building, shall be at the point of service entrance. 2) Metering equipment shall be connected on the load side of the service equipment, except that it shall be permitted on the supply side when the metering equipment is ~~owned~~ controlled by the supply authority. **Alternative Proposal:** 2) Metering equipment shall be connected on the load side of the service equipment, except that it shall be permitted on the supply side when the equipment contains the supply authority's revenue metering ~~equipment is owned~~ by. **Comments:**		

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-009: Rule 36-200, new **Description of Change:** Add Ontario amendment to permit Supply Authority owned primary metering equipment installed ahead of the consumers service equipment.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** Rule 36-200, new **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:** Amendment to Service equipment and metering location and respective responsibility for connection to load side by homeowner's electrician and to the line side by utility owner is in line with current MLITSD enforcement of sections 182 and 181 respectively **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestions have been considered by the ESA and have been discussed with the Ontario Provincial Code Committee (OPCC). After this discussion, selected changes have been made based on the submitted comments.	Based on the comments received, this Ontario Amendment proposal has been revised. 2024-OA-009 - Rule 36-200.pdf

2024-OA-010: Section 56, delete **Description of Change:** Delete CE code Section 56, Optical Fiber Cables from the Scope of the OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** Section 56, delete **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	No change in the proposal. 2024-OA-010 - Section 56.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-010: Section 56, delete **Description of Change:** Delete CE code Section 56, Optical Fiber Cables from the Scope of the OESC.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Removal of this section does not affect MLITSD CHSP compliance requirements for communications employers and optical fiber installers (Network Cabling Specialists) **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**		

2024-OA-011: Rule 68-072, delete **Description of Change:** Delete Ontario Amendment about maintenance disconnecting means for pools and associated Appendix B note.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** Rule 68-072, delete **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:** The deleted section of the code pertains to technical installation requirements not worker safety. Deletion of section for maintenance disconnecting means for pool pumps, spas, and hot tubs does not affect Reg213/91 GFCI requirements for when a portable electrical tool is used outdoors or in wet locations including near pools, spas hot tubs **Suggestion for Improvement:** **Alternative Proposal:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	No change in the proposal. 2024-OA-011 - Rule 68-072.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-011: Rule 68-072, delete **Description of Change:** Delete Ontario Amendment about maintenance disconnecting means for pools and associated Appendix B note.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	Comments:		

2024-OA-012: Table 104, amended **Description of Change:** Amend current Ontario amendment to Table 104 to include additional depth of setting of poles in soil.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** Table 104, amended **Support/Oppose:** No conflict with reg 213/91 requirements **Rationale:** Amendment to table 4 - Depth of setting of poles in soil -does not affect MLITSD CHSP enforcement of EUSR requirements for utility poles nor safety requirements for the use of digger derrick/telehandler and operator training. **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	No change in the proposal. 2024-OA-012 - Table 104.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-013: Rule 75-814, amended **Description of Change:** Amend Ontario amendment Subrule 3) about maximum permissible neutral voltage.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Local Distribution Company (Hydro One Networks Inc)	**OESC Code Rule:** Rule 75-814, amended **Support/Oppose:** Oppose **Rationale:** We disagree with the removal of the 10 volts NEV limit from section 75-814 from private primary lines as it removes a commonality between customer owned and distributor owned lines. As these neutral systems are interconnected, putting a limit on one and not the other is both not reasonable and not practical. Removing the limit from privately owned lines may lead to an increase in the number and/or severity of stray voltage incidents. The following points provide additional rationale against the proposed change. • It is typical for a distributer to limit neutral to earth voltage to 10 volts and it is a common historical practice amongst distributors. The proposed change does not align with the statement in the amendment "Neither distributor standards nor industry standards contain any acceptable thresholds for maximum allowed neutral voltage." • As an electrical distributer we agree and confirm that the elimination of voltage and current over the neutral conductor is not possible. Because it is not possible to reduce voltage and current over the neutral conductor to zero, a voltage threshold is necessary. The removal of the existing 10-volt limit may have the unintended effect of actually increasing public shock hazard. • We are looking for clarification on the statement from Appendix B Note 75-814 3 "The neutral voltage (measured between two separate reference points) should be reduced to achieve safety and prevent potential shock hazard". This statement is unclear whether this is referring to Neutral to Earth voltage (NEV), or the potential difference between two contact points. Consumer grounding and bonding is critical to the utility with respect to NEV levels during fault conditions. If there is a concern regarding	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation. The comments and suggestion has been considered by the ESA and has been discussed with the Ontario Provincial Code Committee (OPCC). A new Appendix B note to the Rule has been added based on the submitted comments.	Based on the comments received, this Ontario Amendment proposal has been revised.  2024-OA-013 - Rule 75-814.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-013: Rule 75-814, amended **Description of Change:** Amend Ontario amendment Subrule 3) about maximum permissible neutral voltage.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	points of contact, ensuring that those points are appropriately bonded would greatly reduce or eliminate the public shock hazard. • We disagree with the addition of "Other jurisdictions and authorities may have codes and standards with threshold requirements for stray voltage and currents that can be related to other applications, such as animal contacts". to appendix B Note 75-814 3) The ambiguity of the statement may cause inappropriate application of codes and standards to situations they were not designed for. The code and manufacturers' requirements for bonding around animal contact points differ significantly from bonding in a residential home - a direct comparison in testing would be inappropriate. **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**		

2024-OA-013: Rule 75-814, amended **Description of Change:** Amend Ontario amendment Subrule 3) about maximum permissible neutral voltage.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
Ontario Government Ministry (MLITSD)	**OESC Code Rule:** Rule 75-814, amended **Support/Oppose:** Support No conflict with reg 213/91 requirements **Rationale:**	Thank you for your engagement and valuable insight into the Ontario Electrical Safety Code; the code is better with your participation.	Based on the comments received, this Ontario Amendment proposal has been revised.

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments
Public consultation feedback and resolution*

2024-OA-013: Rule 75-814, amended **Description of Change:** Amend Ontario amendment Subrule 3) about maximum permissible neutral voltage.			
Submitted by	**Stakeholder Comment**	**ESA response**	**Proposed change**
	MLITSD jurisdiction covers worker safety during installation of electrical systems. This amendment pertains to technical installation parameters and multiple grounding of neutral conductors. Although this goes beyond MLITSD jurisdiction the Ministry supports the intent to reduce stray voltage that may pose a risk to workers and the public. **Suggestion for Improvement:** **Alternative Proposal:** **Comments:**		2024-OA-013 - Rule 75-814.pdf

(*) The attached revised proposal drafts are based on our review to the feedback received during the public consultation, as well as the discussion with Ontario Provincial Code Committee (OPCC). These drafts are subject to the review and approval of the Ontario Government.

Electrical Safety Authority

The OESC 29th Edition
Proposals for Ontario Amendments

Proposal Number: 2024-OA-001

Rule(s):
2-000 a)

Description of Change:
Amend existing Ontario amendment to add licensed generators in the Scope of OESC.

Submitted by:
Electrical Safety Authority.

Background:
The current Scope of the Ontario Electrical Safety Code (OESC), Rule 2-000 a), exempts electrical equipment and electrical installations used exclusively in the generation, transmission, or distribution of electrical power or energy intended for sale or distribution to the public from the requirements of the OESC, UNLESS an authorization to connect from the Electrical Safety Authority (ESA) is required as per Part V of the Ontario Energy Board Act.

Appendix B note to Rule 2-000 a) further clarifies that where Codes issued by the Ontario Energy Board under Part V of the Ontario Energy Board Act, 1998, require a connection authorization, the OESC applies to electrical installations specified in Subrule a).

There are 428 licensed generators in Ontario, historically all required a connection authorization and complied with the Code.

The expectation is that Distributed Energy Resources (DERs) installation will be increasing as part of the energy transition as another way for communities to meet their energy needs. DERs generally refer to resources, such as battery storage, rooftop solar panels, and electric vehicles (EVs) paired with smart chargers. The likelihood of widespread adoption of DERs could have significant implications on distribution systems. Safety is paramount for installation and integration of DERs into distribution systems; therefore, including licensed generators in the scope of OESC is the necessary step.

Rationale
As generation facilities are required to obtain authorization to connect in order to be connected to the grid, they are not exempted from the scope of the OESC as per Rule 2-000 a). Electrical installations (as defined in the OESC) in generation facilities are

required to follow all OESC requirements including but not limited to notifications, plan review submissions, ground potential rise (GPR) studies, etc.

Deletion of Rule 2-000 a) iii) will eliminate contradictions between the requirements of the Ontario Energy Board Act and the OESC. Furthermore, this change is in alignment with the current practice.

OESC Bulletin 2-28-* provides additional clarification and could be deleted if this OA is adopted.

Proposed Change:

Modify current Ontario Amendment to Rule 2-000 a) and delete Subrule a) iii).
2-000 Scope (see Appendix B)

This Code does not apply to

a) electrical equipment and electrical installations used exclusively in the ~~generation,~~ transmission, or distribution of electrical power or energy intended for sale or distribution to the public as specified in Item i), or ii), ~~or iii), except where the Ontario Energy Board requires an authorization to connect from the Electrical Safety Authority in accordance with Part V of the Ontario Energy Board Act, 1998:~~

i) the distributor is licensed to own or operate the distribution system under Part V of the Ontario Energy Board Actc,1998; or

ii) the transmitter is licensed to own or operate the transmission system under Part V of the Ontario Energy Board Act, 1998; ~~or~~

~~iii) the generator is licensed to own or operate the generation system or is licensed to provide ancillary services for sale through the IESO-administered markets or directly to another person, under Part V of the Ontario Energy Board Act, 1998;~~

No changes in Subrules b), c), d), e), f), g) and h)

Modify current Appendix B Note to Rule 2-000 a).

~~*Where Codes issued by the Ontario Energy Board under Part V of the Ontario Energy Board Act, 1998, require a connection authorization, this Code applies to electrical installations specified in Item a). Codes issued by the Ontario Energy Board can be referenced on the Ontario Energy Board website.*~~

This Code applies to electrical equipment and electrical installations used in the generation of electrical power or energy intended for sale or distribution to the public. ~~*Where generating stations are under Federal or other Provincial jurisdictions, electrical equipment and control systems associated with safety and operation of generating stations, such as systems associated with turbines, or nuclear reactors and associated equipment, are outside of the Scope of this Code.*~~
This Code does not apply retroactively for existing installation and equipment. However, when any legacy installations and equipment are altered, upgraded, or replaced this Code is applicable.

In the event of any perceived or real conflict or inconsistency between the codes at the federal, provincial and municipal levels, the electrical power operator (generator) should consult with other authorities having jurisdiction as applicable (e.g. the Canadian Nuclear Safety Commission (CNSC), Technical Standards and Safety Authority (TSSA), or Municipal Building Officials) to determine the approach to resolve the inconsistency.

Rule(s):
2-010 1)

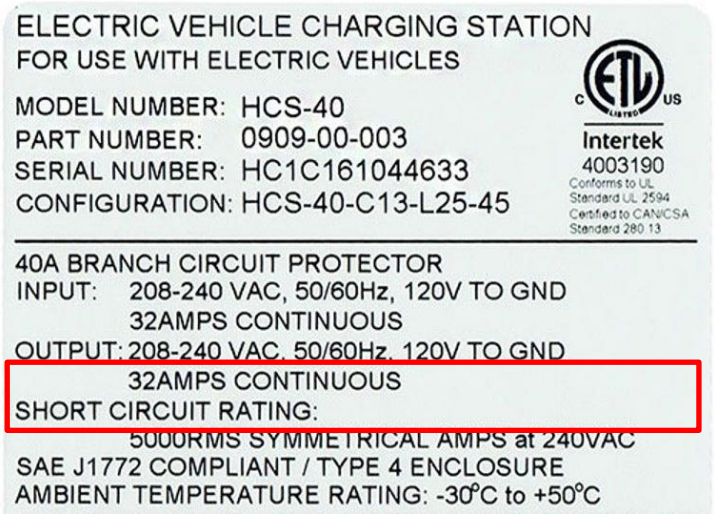
Description of change:
Add Plan Review requirements for the installation of electric vehicle supply equipment in other than a single dwelling unit.

Submitted by:
Electrical Safety Authority

Background:
As new technologies, including electric vehicle supply equipment (EVSE), are introduced to the market, the installation of this equipment will change the circuit loading and demand of existing electrical infrastructure. To proactively address this issue, and to manage the impact of the new technology on existing electrical installations, it is prudent to provide guidance where emerging technologies are installed. The proposed Ontario amendment (OA) provides an update Rule 2-010 to include requirements for the submission of plans where EVSE is to be installed to assist the industry in ensuring compliance prior to undertaking the any work.

Rationale:
The addition of significant electrical loads to existing electrical infrastructure introduces the possibility of placing demand on electrical equipment that creates the possibility of fire hazards. The proposal acknowledges the ability to address this issue under the plan review process in the connection of EVSE to existing electrical infrastructure. The proposal will also allow contractors to avoid additional cost, when undertaking upgrades, where the existing installations require replacements to facilitate the installation of EVSE. The submission of plans under Rule 2-010 based on the nameplate value will also allow for the evaluation in the application of derating of equipment through the use of energy management systems or field settings within the equipment itself. The threshold for the submission of plans under Rule 2-010 has been proposed to be established if the added EVSES have a total of 20% of the rating of the service equipment, according to Rule 8-104, and is based on the total nameplate ratings of the EVSE being installed. The 20% value is derived from the provisions of Rule 64-112 4) c) for non residential electrical installations.

Examples:
The following provides an example of the calculation for undertaking the submission under Rule 2-010. The example is based on a consumer service with a rating of 1000 A, as follows:



Electrical Vehicle Supply Equipment Submission Calculation		
Single Phase		
	Scenario 1	Scenario 2
Rating of Service	1000 Amps	1000 Amps
Nameplate Rating of EVSE*	32 Amps	32 Amps
Number of EVSE*	5	8
Total Additional Load Single Phase	160 Amps	256 Amps
Percent of service rating	16 %	25.6 %
Submission Required	NO	YES
Three Phase		
	Scenario 1	Scenario 2
Rating of Service	1000 Amps	1000 Amps
Nameplate Rating of EVSE*	32 Amps	32 Amps
Number of EVSE*	10	15
Total Additional Load	320 Amps	480 Amps
3 Phase Adjusted Value Three Phase	185.0 Amps	277.5 Amps
Percent of service rating	18 %	28 %
Submission Required	NO	YES

*EVSE (Electric Vehicle Supply Equipment)

Proposed Change:

Add new item f) to Ontario Amendment Rule 2-010 1).

2-010 Plans and specifications *(see Appendix B)*
1) Electrical work on any electrical installation shall not commence until plans have been submitted
and examined by the Electrical Safety Authority where the electrical installation involves

- *a) a three-phase consumer service or standby generation equal to or in excess of 400 A circuit capacity;*
- *b) a single-phase consumer service or standby generation equal to or in excess of 600 A;*
- *c) a feeder greater than 1000 A;*
- *d) an emergency power supply for life safety systems as per Section 46, excluding unit equipment;*
- *e) any installations involving electric-power-generating equipment or energy storage systems, with a rating in excess of 10 kW (Microsize) as defined by the Ontario Energy Board, and operating in parallel with a supply authority system; ~~or~~*
- *f) any installation of electrical vehicle supply equipment, with the exception of a single dwelling unit, where the total nameplate rating(s) of the electrical vehicle supply equipment including both existing and new is greater than 20% of the rating of the service equipment; or*
- *g) any installation operating in excess of 750 V, excluding*
  - *i) installations of pole lines exclusively within the scope of Section 75*
  - *ii) that portion of an underground installation between a supply authority-owned transformer and the related supply authority-owned switch; or*
  - *iii) replacement of electrical equipment as permitted by Subrule 2 c)*

No change to Subrules 2) to 6).

Rule(s):
2-010 1) e)

Description of Change:

1. Amend existing Ontario amendment to require submission of the electrical design for electric-power-generating equipment and energy storage systems for off-grid installations.
2. Delete the reference to Ontario Energy Board (OEB) definition and add bi-directional electric vehicle supply equipment (EVSE) as electric-power-generating equipment.

Submitted by:
Electrical Safety Authority

Background:

1. The current Plan Review submission requirements for electric-power-generating equipment or energy storage systems rated more than 10 kW also requires the system(s) to be operating in parallel with the supply authority. The intent of this proposal is to remove the requirement to be operating in parallel with the supply authority and base the submission on the system rating only.
2. The current Ontario amendment references an OEB definition that was applicable to a program that no longer exists. In addition, the current Plan Review submission requirements for electric-power-generating equipment and energy storage systems (ESS) rated more than 10 kW does not include bi-directional EVSE. The intent of this proposal is to clarify these submission requirements to align with the current ESA direction.

Rationale

1. These systems have evolved significantly in both functionality and complexity since the submission requirement was first introduced in the OESC 23rd (edition 2002). The 23rd edition of the code contained only a few pages of requirements across Sections 50 and 84. Since then, Section 64 has been developed and continues to grow with many requirements. With multiple sources at a single installation, being connected to the same equipment and conductor, the determination of code compliance has become more challenging while considering current flow in different directions. This can become even more challenging for off-grid (not connected to the supply authority) systems, where there is an increased chance that the designer/installer are the owner and not familiar with the OESC requirements.
2. The current inclusion of "…(Microsize) as defined by the Ontario Energy Board…" was in reference to a definition that was part of the Feed-In Tariff (FIT) program that was launched in 2009 and subsequently closed in 2016. Although

this definition may still be referenced in some OEB documents, current discussion within the OEB's Distribution Energy Resources (DERs) working group indicate that this definition may change in the future, which would create a conflict with the current wording.

Bi-directional EVSE is another solution to provide power back to the grid ("Vehicle-to-grid (V2G)"), buildings ("Vehicle-to-building (V2B)"), or homes ("Vehicle-to-home (V2H)"). Bi-directional EVSE is referenced in Rule 86-308 as being an "electric power production source" and as such, would be subject to Plan Review submission requirements. This clarification is currently documented in ESA Bulletin 2-11-*.

Finally, there have been ongoing questions regarding which portion of the design/installation is to be used to base the "rating in excess of 10 kW" on. To align with current ESA direction, the addition of "output" is meant to clarify that submission requirements are based on the equipment/inverter output ratings, not the input sources.

Proposed Change:

Amend current Ontario amendment to Rule 2-010 1) e)

Add Rule 2-010 1) e) as follows:
2-010 Plans and specifications (see Appendix B)
1) Electrical work on any electrical installation shall not commence until plans have been submitted and examined by the Electrical Safety Authority where the electrical installation involves

a) a three-phase consumer service or standby generation equal to or in excess of 400 A circuit capacity;
b) a single-phase consumer service or standby generation equal to or in excess of 600 A;
c) a feeder greater than 1000 A;
d) an emergency power supply for life safety systems as per Section 46, excluding unit equipment;
e) any installations ~~involving electric-power-generating equipment~~ within the scope of Section 64 or bi-directional electrical vehicle supply equipment ~~or energy storage systems,~~ with an output rating in excess of 10 kW ~~(Microsize) as defined by the Ontario Energy Board, and operating in parallel with a supply authority system~~; or
f) any installation operating in excess of 750 V, excluding
i) installations of pole lines exclusively within the scope of Section 75;
ii) that portion of an underground installation between a supply authority-owned transformer and the related supply authority-owned switch; or
iii) replacement of electrical equipment as permitted by Subrule 2 c).

Rule(s):
8-002; 8-106; Appendix B to Rule 8-106 10); and 8-500

Description of Change:
Add Ontario Amendment to permit the use of other types of energy management systems in addition to electric vehicle energy management system (EVEMS).

Submitted by:
Electrical Safety Authority

Background:
The 2018 Canadian Electrical Code accepted a proposal to Section 8 to recognize the use of electric vehicle energy management systems (EVEMS). These rules were included in the 27th edition of the Ontario Electrical Safety Code (OESC) when it was enforced in May of 2019.

Rationale:
The technology used for managing the electric vehicle supply equipment has shown promise to also manage other loads at a property and ensure that the service or feeders are not overloaded as identified in Rule 8-104, when it is installed as a component of the distribution equipment. Expanding this technology to address other loads provides options for sites or projects where increasing the service or feeders may not be possible or practicable for multiple reasons. By removing the limitations of this accepted practice, it will assist the industry in addressing the electrification of the Province as we pivot to more sustainable energy and reduce the collective carbon footprint. The technology for energy management coupled with renewable energy and storage can be a dynamic opportunity for designers to meet the ever-changing industry, and the needs of the consumers to incorporate additional loads into established infrastructure.

For clarity, the first section shows the modifications being proposed to the existing rules in the OESC and the second section is a clean copy.

Proposed Change:

Amend CE Code Rule 8-002, Rule 8-106 10) and associated Appendix B note, Rule 8-106 11), title of Subsection with Rule 8-500 and Rule 8-500.

Rule 8-002 Special terminology (see Appendix B)
In this Section, the following definitions shall apply:

No change for any of the other definitions.

~~**Electric vehicle e**~~**Energy management system** — a means used to control electric ~~vehicle supply equipment~~ loads through the process of connecting, disconnecting, increasing, or reducing electric power to the loads and consisting of any of the following: a monitor(s), communications equipment, a controller(s), a timer(s), and other applicable device(s).

Rule 8-106 Use of demand factors (see Appendix B)

No change for Subrules 1) to 9).

10) Where ~~electric vehicle supply equipment~~ loads are controlled by an ~~electric vehicle~~ energy management system, the demand load for the ~~electric vehicle supply~~ equipment shall be equal to the maximum load allowed by the ~~electric vehicle~~ energy management system.

11) For the purposes of Rules 8-200 1) a) vi), 8-202 1) a) vii), 8-202 3) d), 8-204 1) d), 8-206 1) d), 8-208 1) d), and 8-210 c), the demand load for the electrical ~~vehicle supply~~ equipment shall not be required to be considered in the determination of the calculated load where an ~~electric vehicle~~ energy management system as described in Subrule 10) performs the functions of

a) monitoring the consumer's service, feeders, and branch circuits; and
b) controlling the electric ~~vehicle supply~~ equipment loads in accordance with Rule 8-500.

Appendix B
Rule 8-106 10)

It is intended by this Subrule that the loads of the ~~electric vehicle supply~~ equipment controlled by an ~~electric vehicle~~ energy management system should be considered to have a demand within the maximum limits allowed by the ~~electric vehicle~~ energy management system.

The ~~electric vehicle~~ energy management system is provided with a maximum load rating, which determines the branch circuit, feeder, and service loading.

~~Electric vehicle e~~Energy management systems

8-500 ~~Electric vehicle e~~Energy management systems

1) E~~lectric vehicle e~~nergy management systems shall be permitted to monitor and control electrical loads ~~and to control electric vehicle supply equipment loads.~~

2) An ~~electric vehicle~~ energy management system shall not cause the load of a branch circuit, feeder, or service to exceed the requirements of Rule 8-104 5) or 6).

3) An ~~electric vehicle~~ energy management system shall be permitted to control electrical power by remote means.

Rule(s):
8-202 3) d)

Description of Change:
Add Ontario amendment to require the addition of electric vehicle supply equipment (EVSE) loads that are supplied from a panelboard within a dwelling unit.

Submitted by:
Electrical Safety Authority

Background:
The current Subrule 8-200 2) does not exclude the demand factors for EVSE loads from being calculated as per Rule 8-202 3) a) i) to v). Having the EVSE loads included together with other loads per Rule 8-202 3) a) i) to v) drastically reduces the EVSE load demand as compared to 100% demand factor.

In the 2024 edition of the Canadian Electrical Code (CE Code), Rule 8-200 2) was changed and has added EVSE supplied from a panelboard installed in the dwelling unit to the list of excluded loads together with heating and air-conditioning. The newly excluded EVSEs loads are not being added back within Subrule 8-202 3) b) to e).

Rationale
In the 2024 edition of the CE Code, Rule 8-200 2) will exclude the EVSE loads together with the electric space heating and air conditioning loads from the applicable demand factors on items 8-202 3) a) i) to v). Additionally, item d) of Rule 8-200 3) has been modified in the 2024 CE Code to add EVSE loads that are not supplied from a panelboard installed in a dwelling unit at 100% demand factor, or as permitted by Rules 8-106 10) and 8-106 11). However, this does not include the EVSE loads that are extracted by the new Rule 8-200 2), which are supplied from a panelboard installed in a dwelling unit.

Proposed Change:

Amend CE Code Rule 8-202 3) d) and add new Appendix B Note to Rule 8-202 3) d).

8-202 Apartment and similar buildings (see Appendix B)

No change to Subrules 1) and 2)

3) The calculated load for the consumer's service or feeder supplying two or more dwelling units shall be based on the calculated load obtained from Subrule 1) a) and the following:

Δ a) excluding any electric vehicle supply equipment loads, electric space-heating loads and any air-conditioning loads, the load shall be considered to be

i) 100% of the calculated load in the unit having the heaviest load; plus
ii) 65% of the sum of the calculated loads in the next 2 units having the same or next smaller loads to those specified in Item i); plus
iii) 40% of the sum of the calculated loads in the next 2 units having the same or next smaller loads to those specified in Item ii); plus
iv) 25% of the sum of the calculated loads in the next 15 units having the same or next smaller loads to those specified in Item iii); plus
v) 10% of the sum of the calculated loads in the remaining units;

b) if electric space heating is used, the sum of all the space-heating loads as determined in accordance with the requirements of Section 62 shall be added to the load determined in accordance with Item a), subject to Rule 8-106 3);

c) if air conditioning is used, the sum of all the air-conditioning loads shall be added, with a demand factor of 100%, to the load determined in accordance with Items a) and b), subject to Rule 8-106 3);

Δ d) except as permitted by Rule 8-106 10) or Rule 8-106 11), any electric vehicle supply equipment loads ~~not supplied from a panelboard installed in a dwelling unit in accordance with Rule 8-202 1) a) vii),~~ shall be added with a demand of 100%; and

e) in addition, any lighting, heating, and power loads not located in dwelling units shall be added with a demand factor of 75%.

No change to Subrule 4)

Add Appendix B Note to Rule 8-202 3) d) as follows:

Rule 8-202 3) d)
Item d) applies to installations when electric vehicle supply equipment is either supplied from a panelboard installed in a dwelling unit or outside of a dwelling unit.

Rule(s):
10-004 and 10-116 6)

Description of Change:
Delete Ontario Amendment (OA) special terminology for “Effectively grounded metal structural frame of a building” in Rule 10-004 and delete OA to Rule 10-116 6) and associated Appendix B note.

Submitted by:
Electrical Safety Authority

Background & Rationale:
The definitions of “solidly grounded systems” and “system bonding jumper” in Rule 10-004 have been revised for the 2024 Canadian Electrical Code (CEC) to include all methods of achieving a grounding connection for solidly grounded systems, such as using a non-current-carrying conductive body (e.g., a steel beam) to extend the grounding connection.

From the 2024 CEC Rule 10-004:

- **Solidly grounded systems** – an electrical system in which a point of that system is connected, without inserting an impedance grounding device,
  a) to a system bonding jumper; and
  b) ~~by a grounding conductor~~ to a grounding electrode or to a conductive body that extends the ground connection.

- **System bonding jumper** – a connection between the ~~system grounded~~ point of an electrical system to be solidly grounded and the non-current-carrying conductive parts of ~~an~~ that electrical system ~~to be established a solidly grounded system~~.

This revision encompasses the intent of the OA special terminology that defined an “effectively grounded metal structural frame of a building” as a metal structural frame of a building with members (including columns and beams) that are permanently bonded to each other and to the main service grounding conductor or electrode; and therefore, the intent of Subrule 6) in the OA for Rule 10-116. Although the current OA to Rule 10-116 is applicable to separately derived systems only, there are no safety concerns for allowing consumer service to be grounded to a metal structural frame as an extension of a grounding connection.

Proposed Change:

Delete the current Ontario Amendment to Rule 10-004 and Rule 10-116 6) and associated Appendix B note.

10-004 Special terminology (see Appendix B)
In this Section, the following definitions shall apply:
~~***Add the following definition:***~~
~~***Effectively grounded metal structural frame of a building —*** *a metal structural frame of a building with members (including columns and beams) that are permanently bonded to each other and to the main service grounding conductor or electrode.*~~

10-116 Installation of grounding conductors (see Appendix B)
1) The grounding conductor shall be electrically continuous throughout its length.
2) Where necessary, devices to control the effects of stray earth current shall be permitted to be connected in series with the grounding conductor.
3) A grounding conductor shall be protected from damage
a) mechanically; or
b) by location.
4) Raceways or sleeves constructed of magnetic materials used to enclose grounding conductors shall be connected to the grounding conductor at both ends.
5) A grounding conductor installed in the same raceway with service conductors shall be insulated, except that an uninsulated grounding conductor shall be permitted where the length of the raceway
a) does not exceed 15 m between pull points; and
b) does not contain more than the equivalent of two 90° bends between pull points.
~~***Add Rule 10-116 6) as follows:***~~
~~*6) For separately derived systems, the grounding conductor connection shall be permitted to be made to the effectively grounded metal structural frame of a building as defined in Rule 10-004.*~~

~~***Add Appendix B Note to Rule 10-116 6) as follows:***~~
~~***Rule 10-116 6)***~~
~~*The effectively grounded metal structural frame of a building as defined in Rule 10-004 is permitted to be used as a common grounding conductor to a grounding electrode, but is not considered as part of a grounding electrode.*~~

Rule(s):
36-200

Description of Change:
Add Ontario amendment to permit Supply Authority owned primary metering equipment installed ahead of the consumers service equipment.

Submitted by:
Utility Advisory Committee

Background:
The supply authority (Distributor) owns and maintains all retail metering equipment per the Distribution System Code. Metering equipment owned by the Distributor is embedded equipment when it is placed after the ownership demarcation point. High voltage Primary Metering Equipment (PME), also known as a Primary Metering Unit (PMU), would be an example of such metering equipment.

Some supply authorities require that the Primary Metering Equipment (PME) be located after the ownership demarcation point but ahead of the consumer's service equipment (Refer to Diagram 1). This now causes the consumer to be non-compliant with the current OESC Rule 6-402 in order to align with the supply authority's requirements.

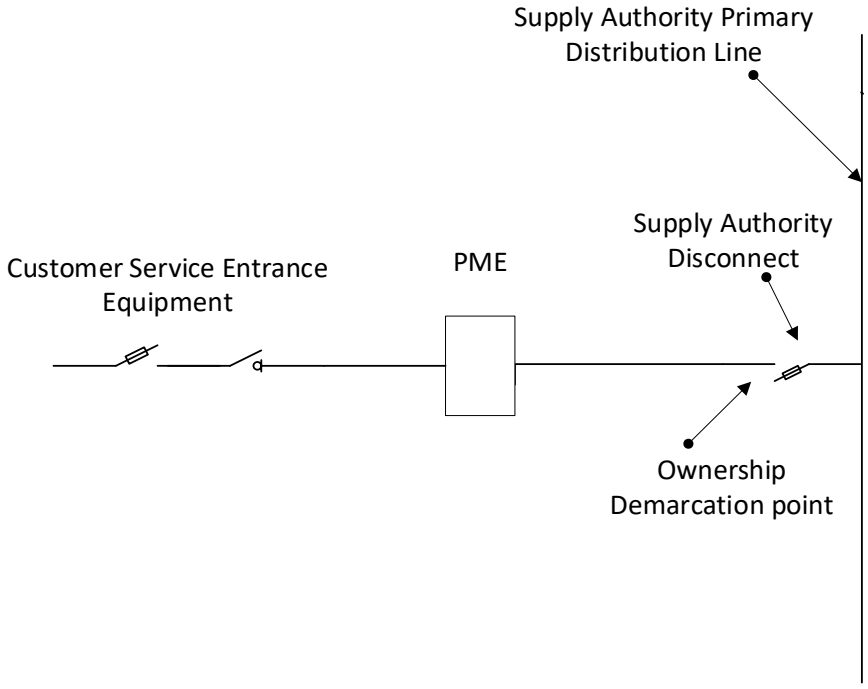


Diagram 1: Basic Service Layout

Rationale:
ESA has brought up this concern with members of the Utility Advisory Council (UAC). It was the UAC's recommendation that a survey be sent to the Distributor's in Ontario. The results of the survey included the following reasons for the location of the PME to be after the ownership demarcation point and ahead of the consumer's service equipment:

- This arrangement would create isolation points on both sides of the PME. These isolation points would provide a safe work zone through a condition guarantee state if any work is required to the PME.
- Improves ease of access for the Distributor. In order to comply with the current Rule 6-402, the PME would need be located deeper in the consumer's property. The more equipment the Distributor owns on these types of installations, the more difficult it becomes to operate and service the equipment since it becomes more inaccessible and it is often found behind locked gates, fences or through or on difficult terrain. Distributors always prefer that their equipment is installed in accessible locations, making it safer and easier for Distributor's employees to reach and work on.
- May reduce the risk of PME failure causing damage to consumer's switchgear.
- May reduce the risk of consumer's switchgear equipment failure resulting in damage to Distributor's PME.
- Improves safety for the Distributor's employees. They do not have to access or enter consumer's switchgear where maintenance by the consumer is unknown.
- Locating the PME ahead of the consumer's service equipment will prevent the meter from losing potential if the consumer opens their disconnect. When a meter loses potential, this causes the Distributor's system to flag this loss of potential and require the Distributor to attend the site for a meter investigation or a trouble call.

The scope of Section 36 applies to high voltage installations. Adding a new amendment will permit the Distributor owned PME to be located ahead of the consumer's service equipment to align with the Distributor's requirements.

Proposed Change:

Add Ontario amendment to Rule 36-200:

36-200 Service equipment and metering location *(see Appendix B)*

1) Service equipment shall be installed in a location that complies with the requirements of the supply authority and, in the case of a building, shall be at the point of service entrance.

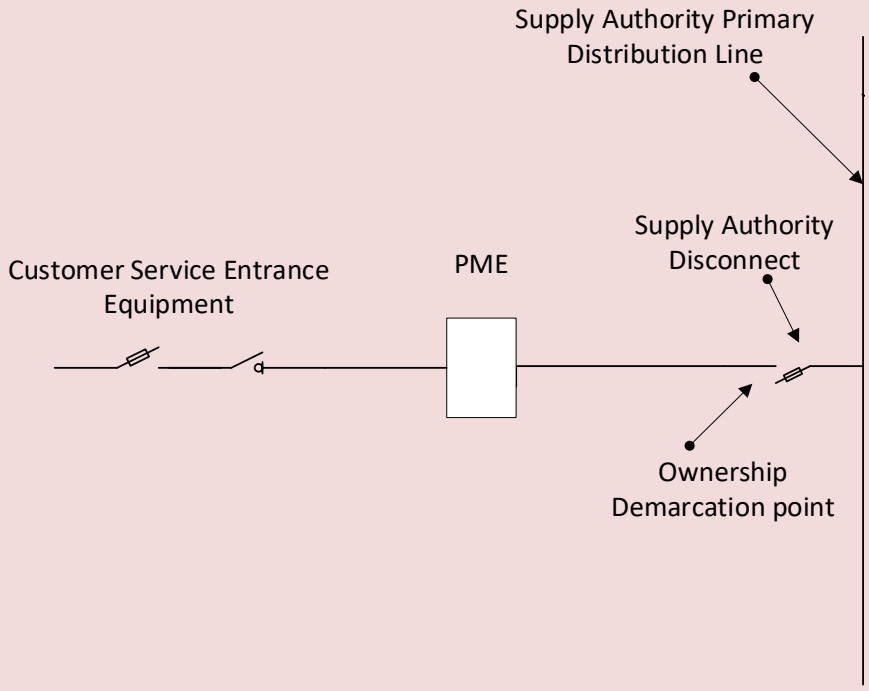
2) Metering equipment shall be connected on the load side of the service equipment, except that it shall be permitted on the supply side when the equipment contains the supply authority's revenue metering.

Add Appendix B to Rule 36-200 2) as follows:

Rule 36-200 2)

Any access to the primary metering equipment (PME) should be coordinated with the supply authority.

Basic service layout identifying Supply Authority's revenue metering ahead of the consumer's service equipment.



Rule(s):
56-000

Description of Change:
Delete CE code Section 56, *Optical Fiber Cables* from the Scope of the Ontario Electrical Safety Code (OESC).

Submitted by:
Electrical Safety Authority

Background:
Fiber optic cables are a mainstay for communication systems, both for voice and data, but have yet to find a foothold in other systems or installations which fall under the scope of Electrical Safety Authority's (ESA) mandate as identified in its Mandate, Mission or Vision.

At present, there is an Ontario amendment to Rule 56-106, which defines that the installation of optical fiber Cables by utilities that are not exempt from the application of the Ontario Electrical Safety Code (OESC); this is contrary to ESA's historical approach to these installations and to enforce these requirements will have resistance from external stakeholders.

Rationale:
ESA has not been requested by the industry to inspect any optical fiber installations and does not have any work items in their fee guide for these projects. Optical fiber also continues to be a niche industry and installers almost universally are installed by communication companies as the trade that encompasses installation, termination and testing of optical fiber cables is the Network Cabling Specialist, which has not been included in the list of trades that can request a notification from ESA.

Retaining this section in the province creates the impression to those outside the industry that there is oversight by a regulator in this field, which is not supported by the data from ESA's notification data base.

Proposed Change:

Delete CE Code Section 56 and associated Appendix B note.

~~**Section 56 — Optical fiber cables**~~

~~**Scope**~~

~~**56-000 Scope**~~
~~This Section applies to the installation of optical fiber cables in conjunction with electrical systems and supplements or amends the general requirements of this Code.~~

~~**General**~~
~~**56-100 Special terminology**~~
~~In this Section, the following definition shall apply:~~
~~**Optical fiber cable** — a cable consisting of one or more optical fibers that transmits modulated light for the purpose of control, signalling, or communications.~~

~~**56-102 Types**~~
~~Optical fiber cables shall be grouped into the following three types:~~
~~a) non-conductive cables that contain no metal members and no other electrically conductive materials;~~
~~b) conductive cables that contain non-current-carrying conductive members such as metal strength members, metal vapour barriers, or metal sheaths or shields; and~~
~~c) hybrid cables that contain both optical fiber cables and current-carrying electrical conductors.~~

~~**56-104 Approvals**~~
~~1) Optical fiber cables placed within buildings shall be of the types selected in accordance with Rule 12-102 3)~~
~~2) Optical fiber cables outside buildings shall be suitable for outdoor installation.~~

~~*Delete CE Code Rule 56-106.*~~
~~**56-106 Acceptance of inspector**~~
~~Installations of optical fiber cables by an electrical utility or a communication utility in the exercise of its function as a utility shall not be subject to the acceptance of an inspector.~~

~~**Installation methods**~~

~~**56-200 Non-conductive optical fiber cables** (see Appendix B)~~

~~Δ 1) Non-conductive optical fiber cables shall not occupy the same raceway with insulated conductors of electric lighting, power, or Class 1 circuits, unless~~

~~a) the non-conductive optical fiber cables are functionally associated with the electric lighting, power, or Class 1 circuit not exceeding 750 V; and~~

~~b) the number and size of non-conductive optical fiber cables and other types of insulated~~

~~c) conductors in the raceway meet with the applicable requirements for the electrical wiring method.~~

~~Δ 2) Non-conductive optical fiber cables shall not occupy the same cabinet, panel, outlet box, or similar enclosure housing the electric terminals of a lighting, power, or Class 1 circuit, unless~~

~~a) the non-conductive optical fiber cables are functionally associated with the lighting, power, or Class 1 circuit not exceeding 750 V, and the number and size of non-conductive optical fiber cables and other types of insulated conductors in the enclosure meet with the applicable requirements for the electrical wiring method; or~~

~~b) the non-conductive optical fiber cables are factory assembled in the enclosure.~~

~~3) Notwithstanding Subrules 1) and 2), for industrial establishments only, where conditions of maintenance and supervision ensure that only authorized persons service the installation, non-conductive optical fiber cables shall be permitted to occupy the same raceway, cabinet, panel, outlet box, or similar enclosure as electric power, control, or instrumentation cables.~~

~~**56-202 Conductive optical fiber cables** (see Appendix B)~~
~~1) Conductive optical fiber cables shall be permitted to occupy the same raceway with any of the following systems:~~
~~a) Class 2 circuits in accordance with Section 16;~~
~~b) communication circuits in accordance with Section 60; or~~
~~c) community antenna distribution and radio and television circuits in accordance with Section 54.~~
~~Δ 2) Conductive optical fiber cables shall not occupy the same raceway, panel, cabinet, or similar enclosure housing electric lighting, power, or Class 1 circuits.~~
~~3) Conductive optical fiber cables shall not occupy the same cabinet, panel, outlet box, or similar enclosure housing the electrical terminals of a Class 2, communications, community antenna distribution, or radio and television circuit, unless~~
~~a) the conductive optical fiber cables are functionally associated with the Class 2,~~
~~b) communication, community antenna distribution, or radio and television circuit; or~~
~~c) the conductive optical fiber cables are factory assembled in the enclosure.~~
~~4) The conductive non-current-carrying members of conductive optical fiber cables shall be grounded in accordance with Section 10.~~

~~Δ **56-204 Hybrid cables**~~
~~1) Optical fibers shall be permitted within the same hybrid cable for electric lighting, power, or Class 1 circuit conductors not exceeding 750 V, or within the same hybrid cable for Class 2, communications, community antenna, or radio and television circuit conductors, provided that the functions of the optical fibers and the insulated conductors are associated.~~
~~2) Hybrid cables shall be classed as cables in accordance with the type of circuit in the insulated conductors and shall be installed in accordance with the Code Rules applicable to the insulated circuit conductors.~~

~~**56-206 Penetration of a fire separation**~~
~~Optical fiber cables extending through a fire separation shall be installed to limit fire spread in accordance with Rule 2-128.~~

~~**56-208 Optical fiber cables in a vertical shaft** (see Appendix B)~~
~~1) Optical fiber cables in a vertical shaft shall be in a totally enclosed non-combustible raceway.~~
~~2) Notwithstanding Subrule 1), conductive and non-conductive optical fiber cables shall be permitted to be installed in a vertical shaft without a totally enclosed non-combustible raceway, provided that these cables meet the flame spread requirements of the *National Building Code of Canada* or local building legislation for buildings of non-combustible construction.~~

~~**56-210 Optical fiber cables in ducts and plenum chambers**~~
~~Optical fiber cables shall not be placed in ducts or plenum chambers except as permitted by Rules 2-130 and 12-010.~~

~~**56-212 Raceways**~~
~~Raceways shall be installed in accordance with the requirements of Section 12.~~

~~Δ **56-214 Grounding of entrance cables** (see Appendix B)~~
~~Where conductive optical fiber cables are exposed to lightning or accidental contact with insulated lighting or power conductors, the metal members of the conductive optical fiber cable shall be grounded in the building as close as possible to the point of cable entry.~~

~~**Appendix B note:**~~

~~**Section 56**~~

~~**Rules 56-200 1) and 56-202 1)**~~
~~The intent of Rules 56-200 1) and 56-202 1) is to allow installation of non-conductive and conductive optical fiber cables in raceways, including cable trays, provided that the other requirements in Section 56 are met and such cables are listed in Table 19.~~

~~**Rule 56-208**~~
~~Where hybrid cables are installed in a vertical shaft, they should be located in a totally enclosed non-combustible raceway, as these cables are classed as electrical cables in conformance with Rule 56-204 2).~~

~~Conductive and non-conductive cables should be allowed to be installed in a vertical shaft of a building of combustible or non-combustible construction without a totally enclosed non-combustible raceway, provided that these cables will meet the flame spread requirements for buildings of non-combustible construction. CSA marking for wires and cables meeting the flame spread requirements for the *National Building Code of Canada* for installation in buildings of non-combustible construction is FT4.~~

~~**Rule 56-214**~~
~~The point at which the exposed conductive optical fiber cables enter a building is considered to be the point of emergence through an exterior wall, through a concrete floor slab, or from a totally enclosed non-combustible entrance raceway.~~

Rule(s):
68-072 & Appendix B Note.

Description of Change:
Delete Ontario Amendment about maintenance disconnecting means for pools and associated Appendix B note.

Submitted by:
Electrical Safety Authority

Background & Rationale:
The Canadian Electrical Code 26th edition has adopted the Ontario Amendment.

Proposed Change:

Delete current Ontario Amendment 68-072 and associated Appendix B Note.

~~*Δ Add Rule 68-072 as follows:*~~
~~*68-072 Maintenance disconnecting means for pool pumps, spas, and hot tubs (see Appendix B)*~~
~~*A disconnecting means rated to interrupt the connected load shall be*~~
~~*a) readily accessible;*~~
~~*b) located outdoors when the equipment is located outside of a dwelling;*~~
~~*c) located not closer than 1.5 m from the inside walls of the pool, spa, or hot tub unless behind a permanent barrier that will prevent the occupant of the pool, spa, or hot tub from contacting the device; and*~~
~~*d) capable of being locked in the open position when not within sight of the equipment.*~~

~~*Add Appendix B Note to Rule 68-072 as follows:*~~
~~*Rule 68-072*~~
~~*For a pool pump, spa, or hot tub with a factory-installed attachment plug, the plug serves as the disconnecting means.*~~
~~*As per Rule 68-068, a disconnecting means that incorporates GFCI protection is required to be located not less than 3 m from the inside wall of the pool, spa, or hot tub.*~~

Rule(s):
Table 104

Description of Change:
Amend current Ontario amendment to Table 104 to include additional depth of setting of poles in soil.

Submitted by:

Electrical Safety Authority

Background:
ESA has seen a few installations where some customer owned poles are exceeding the 15.2 m (50 ft) pole length identified in Table 104. Inspectors have questioned the depth of the pole since the side markings are located above the required height above grade as listed in Table 104.

Rationale:
In accordance with the Standard CSA 015-15 for wood poles, Section 6.5.2.2 states

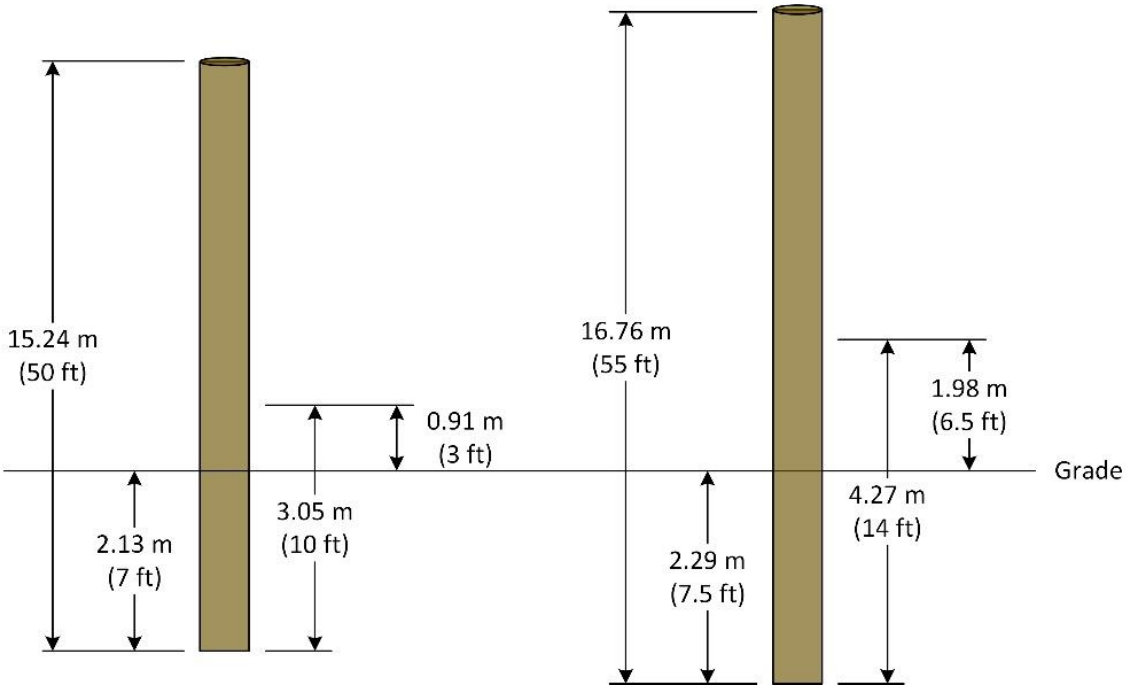
> ***6.5.2.2 Side marking***
> *The bottom of the side mark shall be located on the face of the pole at 10 ft ± 2 in from the butt of poles 50 ft or less in length, and at 14 ft ± 2 in from the butt of poles 55 ft or more in length. In the case of 10 ft, 11 ft, and 13 ft stubs, the mark should be 1 ft from the top.*

Since there are no standards for pole depth, depth of pole rule of thumb = 10% of length + 2 ft. This aligns with Electrical Distributor's approved engineered standards.

For example: for a 55 ft pole

Depth of pole = 5.5 ft+ 2 ft = 7.5 ft (2.3 m) below grade

Side markings= 14 ft – 7.5 ft = 6.5 ft (2 m) above final grade



Proposed Change:

Amend Ontario amendment Table 104:

Table 104

Depth of setting of poles in soil

(See Rules 75-104, 75-122, 75-144, 75-146, 75-164, 75-166, 75-182 and 75-184)

Pole length, m (ft)	***Minimum depth of pole (m)***	***Max. height of marking (m) above grade***
9.2 (30)	*1.7*	*1.3*
10.7 (35)	*1.7*	*1.3*
12.2 (40)	*1.8*	*1.2*
13.7 (45)	*2*	*1.1*
15.2 (50)	*2.1*	*1*
16.8 (55)	*2.3*	*2*
18.3 (60)	*2.4*	*1.8*
19.8 (65)	*2.6*	*1.7*
Col. 1	*Col. 2*	*Col. 3*

Rule(s):
75-814

Description of Change:
Amend Ontario amendment Subrule 3) about maximum permissible neutral voltage.

Submitted by:
Electrical Safety Authority

Background:
The scope of Section 75 applies to the installation of consumer-owned powerlines. Since the beginning of the Ontario Regulation 22/04, the Electrical Safety Authority (ESA) has issued over 60 utility public safety concerns informing the Distributor that members of the public are receiving electric shocks from stray voltages on the consumer's premises. A licensed electrical contractor (LEC) performed testing on the consumer's electrical equipment and installation and determined that the source is external from the Distributor's distribution system.

Distributors have mitigated contributions from their system by repairing deteriorated neutral connections and installation of additional grounding electrodes to their system. Neither distributor standards nor industry standards contain any acceptable thresholds for maximum allowed neutral voltage. Since the scope of Section 75 applies to consumer-owned powerlines, Distributors have misapplied Rule 75-814 3) which will allow up to 10 V to ground. Once a Distributor mitigates the voltage below the 10 V threshold, the Distributor would typically cease to reduce the voltage and to determine the source, even though the consumer could still receive electric shocks.

Rationale:
This amendment removes the 10 V threshold for maximum permissible neutral voltage to ground, but still requires further investigation and solutions to reduce the voltage and current to a level where a person will not feel a sensation of shock. The amendment also recognizes that since the distribution system is a multi-grounded system, the complete elimination of voltage and current over the neutral conductor may not be possible.

Proposed Change:

Amend Ontario amendment, Subrule 3) of Rule 75-814 and add a new Appendix B note.

75-814 Multiple grounding of system neutral on primary lines *(See Appendix B)*
1) The system neutral on primary distribution lines shall be multi-grounded.
2) The standard number of grounds per km of circuit shall be four.
3) ~~The neutral potential shall not exceed 10 V rms to a remote ground at any point under steady-state conditions.~~ The neutral voltage to a remote ground at any point under steady-state conditions shall be limited to reduce the risk of shock hazard.

Add Appendix B Note to Rule 75-814 3) as follows:

75-814 3)
The intent of this subrule is to limit the neutral voltage in order to reduce the risk of shock hazard, property damage or loss. This may be achieved by limiting the neutral voltage to 10 V rms or less measured to a remote ground.