



**MINUTES OF THE
SECOND ELECTRICAL SUB-COUNCIL MEETING OF 2024**

DATE: April 8, 2024

TIME: 9:31 a.m. to 12:40 p.m.

LOCATION: Videoconference

PRESENT: **Sub-Council Members**
Gregory Briggs
Brad Dougherty
Patrick Conway
Bert DeBruin
Hussein Desouki
Tim Driscoll
Adam Ghani, Vice Chair South
Ken Hood
Nicolas Leblanc, Chair
David Myers
Denny Smith
Ed Knaggs

Safety Codes Council
Allison Karch, Jennifer Johnson, Rob Bennett

Alberta Municipal Affairs
Kevin Glubrecht, Cameron Doram

REGRETS: Barry Voogd, Clark Redden, Gerry Doan

GUESTS: Jason Drenth, EUSC Liaison; Brian Ladds, Ladds Uzeloc Consulting

RECORDER: Allison Karch

NEXT MEETINGS: June 17, 2024; October 21, 2024; February 3, 2025; June 9, 2025

1. Meeting Opening

The Chair called the meeting to order at 9:31 a.m. A round table introduction was held, and members were reminded that their primary duty is to act in the interest of safety in the built environment for the benefit of all Albertans.

1.1 Agenda Adoption

The following items were added to the agenda:

- Item 4.4.3. Electrical Vehicle Energy Management Systems Working Group report.

Greg Briggs / Ed Knaggs moved that the agenda be adopted, as amended; CARRIED

1.2 Adoption of the January 22, 2024, Minutes

Tim Driscoll / Hussein Desouki moved to adopt the minutes of the January 22, 2024, meeting, as circulated; CARRIED

2. Matters for Decision

None identified.

3. Review Matters Arising/Action List

	Item	Action	Date Initiated	Responsible	Status/Update
1.	Colour Coding Code Change Request	<p>Code change request was not approved for the 2024 code but the Section 4 subcommittee retained this item. SN 4813.</p> <p>CSA ballot info seems to show a conflicting interpretation of how OBY is being used.</p> <p>Revisions have been made to address the CSA ballot comments and are currently being reviewed.</p>	Dec 5/22	Ghani	<p>Submission is with CSA Section 4 subcommittee; will go to CSA conference in June 10-14 and a response should be provided afterward and will be brought to the next ESC meeting.</p> <p>Council staff confirmed the Working Group was closed on December 5, 2022.</p>
2.	Rule 26-602 re. New Installations with Second Dwellings	<p>The code does not stipulate where the electrical panel has to be located. The proponent sent a code change request to CSA.</p> <p>Tracking ID: CSA 22.1.21:013</p>	Feb 6/23	Chledowski / Redden	<p>This was not discussed at EIAA. Still in progress at CSA.</p> <p>SN:4876</p>
3.	EZ Generator Switch	<p>This is a US product, but it hasn't completed all the certification process for Canada and is not being accepted in Ontario. It is certified to CSA C22.2 No.14. This standard</p>	Oct 16/23	Conway	<p>Intertek has recertified the device to C22.2 No. 178.1 (transfer switch standard).</p> <p>Closed.</p>

		<p>seems to be used as a “catchall” standard but it’s actually an industrial standard, which may be why the product hasn’t been certified for use in Canada.</p> <p>The member representing Electrical Standards/Testing/Certification Organizations will investigate and bring forward any further info.</p>			
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4. Matters for Discussion

4.1. Energy Storage Systems Fire Risks Presentation

Brian Ladds from the Calgary Fire Department presented about energy storage systems, such as large-scale batteries in homes and vehicles. Highlights and discussion included:

- Lithium-ion batteries produce very toxic smoke and when stacked together in metal casing it is very difficult to get cooling water into the battery assembly to extinguish it.
- Challenging for fire crews as they may not be aware of the cause of the fire on arrival.
- Many vehicles have no warning placards for fire service that the vehicles contain electric batteries.
- There is no safe operating area around an electric vehicle on fire without respiratory gear.
- Technology is outpacing code development; we need to be prepared as much as possible for the challenges ahead.
- There is no regulatory requirement for publishing an emergency response guide so not every manufacturer does so.
- Placement of battery charging stations in parking garages should be considered (e.g. vent path, exit routes, etc.)
- For residential micro generation situations, it’s not always clear to first responders whether there are photovoltaic panels on the roof (can’t be seen, under snow, unsure whether it’s just a solar heat exchanger).
- There’s no requirement for energy storage systems to be in the fire safety plan and they don’t require a hazardous material placard on the outside of buildings containing them. Incidents have occurred when fire responders were unaware of the hazards inside a burning building.
- Safe disposal of damaged energy storage systems is a challenge and can create hazardous wastewater.
- There may be issues with the location of EV charging stations in parkades. The International Building Code (IBC) references the Vancouver Building Code Bylaw EV charging requirements, but IBC doesn’t include setbacks.
- ESC could focus on consistency in disconnects for solar systems and energy storage systems and find a way to alert first responders to the presence energy storage systems or include them in emergency response guides.
- It was noted that the existing energy storage systems variance STANDATA does address many of the concerns raised. The content of this STANDATA is derived from the 2024 CE Code and will be retired when the code is in force.
- The Electrical Solar Association has a safety handbook for firefighters.

- Some condo associations have banned parking and charging of electric vehicles in their garages.
- BSC moved to form a joint working group with FSC and ESC to investigate these risks and challenges.

Greg Briggs/Hussein move to form a joint working group with the Building Sub-Council and Fire Sub-Council to investigate the risks associated with energy storage, charging, and collection systems: CARRIED

Ken Hood / Hussein Desouki move that the working group membership include Greg Briggs and Ed Knaggs with Greg as co-chair; CARRIED

Ken Hood / Patrick Conway move that the working group provide an interim report at the next sub-council meeting: CARRIED

4.2. Code Review Discussion

Members were asked to review the Memorandum of Revisions to the 2021 CE Code that were published in the 2024 code and report at the next meeting on any issues that require further review and possible recommendation about adoption. [All]

A possible error was noted in 8-202(3) regarding electrical vehicle supply equipment being removed from the calculated load. It was reported that an error submission to CSA on this topic is being developed by a municipality.

4.3. Termination Variance Request

A request was received from the EIAA to consider recommending a province-wide variance for products used in high voltage terminations and splices for which there is no Canadian certification standard.

Variances are frequently issued for products that meet international standards (such as Institute of Electrical and Electronics Engineers) to be used in these situations. Since a large number of these variances are being issued, by both municipalities and corporations, a province-wide variance would reduce the administrative burden of site-specific variances.

Adam Ghani / Tim Driscoll moved to form a working group to discuss a potential recommendation about a province wide variance for medium voltage termination products; CARRIED

Ken Hood / Tim Driscoll moved that working group members include Adam Ghani (as chair), Nicolas Leblanc, Bert DeBruin, and Denny Smith with support from Alberta Municipal Affairs (Morgan Pendray-Frame); CARRIED

Ken Hood / Hussein Desouki moved to provide an interim report at the next ESC meeting; CARRIED

Working Group Reports

4.2.1. Non Metallic Outer Jacket Cables

There is currently a bulletin about this topic, and the topic is covered by the 2024 CE code.

Bert de Bruin / David Myers move to close the working group; CARRIED

4.2.2. Code interpretation re. CSA C22.3 No7 :20 and C22.1 10-210

The group (joint with EUSC) has met twice. They have clarified the problem statement and reached out to CSA section committee chairs for information. They learned that the intents of the Part 1 and Part 3 requirements are different, Part 1 being about parallel paths and Part 3 being about bonding.

It was suggested that the issue may be a lack of understanding about the purposes of the rules in question and considering safety first. The group will continue to review. It was requested that the information and image shared on screen be included in the working group's report.

4.4.3. Electrical Vehicle Energy Management Systems Working Group report.

No further update since the last meeting; more to come.

4.3. Liaison Reports

4.3.1. Building

No report was available because the temporary liaison was not able to attend.

4.3.2. Electrical Utilities

The following was reported:

- There was a presentation about Aggregated Generating Facilities. There are generation facilities of different types that may be treated as a Part 1 installation but have Part 3 design requirements. Request to return to a previous variance (VAR-EUC-Scope)
- The liaison was asked to take the following information back to EUSC: CSA CE Code Part 3 No. 9 standard is in revisions to align with IEEE. This standard isn't included in the AEUC.
- OHS has adopted electrical worker safety standards which were previously removed from the AEUC.

4.4. Administrator/AMA Report

The Administrator reported:

Alberta Municipal Affairs

- In addition to the Electrical Administrator attending ESC, meetings, an electrical technical advisor may attend electrical sub council meetings. Gregg Marshall, Cameron Doram, Morgan Pendray-Frame, or Lucie Riopel may be some faces you will see at meetings from time to time on behalf of Municipal Affairs.
- 26th Edition CSA C22.1:24 Canadian Electrical Code was published on March 1st 2024 (including a French publication)

STANDATA updates:

In process

- Overhaul of STANDATA 26th Edition CSA C22.1:24 Canadian Electrical Code

Currently being updated:

- Interpretations – 6 (3 additional Joint STANDATA's with Building and Fire disciplines)
- Bulletins – 20
- Variances – 5
- Notice – 6 month reminder of code publication
- Notice of 2025 C22.1:24 Canadian Electrical Code Adoption Date. Tentatively April 1, 2025 unless Minister chooses to adopt early.

Not to be reissued:

- 24-ECV-006-112 (overhead consumer service)
- 24-ECV-018-150 (Equip in classified areas) – covered in CE Code 2024
- 24-ECV-064-218 (PV – Rapid shut down) – covered in CE Code 2024
- Joint 24-ECV-064-900 (Residential ESS) – covered in CE Code 2024

Complete:

- Notice of publication of the 2024 CE Code on March 1st, 2024
[Notice : new Canadian Electrical Code, Part I \[2024\] - Open Government \(alberta.ca\)](#)
- Notice not to renew/archive 21-ECV-006-112 Consumer Overhead Service – Masts
[Notice : archive variance 21-ECV-006-112 - Open Government \(alberta.ca\)](#)

Upcoming meetings of interest:

- ULC Advisory Council April 16-17 - Toronto
- ECAA Annual Convention May 23–26th - Calgary
- EFC conference May 28-30th 2024
- CSA Part I Committee meeting June 10-14 – Vancouver
- SCC AGM June 21, 2024
- SCC Summit Oct 2-4 – Nisku
- Provincial Electrical Safety Uniformity (virtual) monthly
- AEA Learning Expo Oct 23, 2024
- And so many more – if anyone has any events that you would like to pass on to MA for information please let us know if there is an opportunity for us to attend.

4.5. Council Updates

A written report was included in the portal and updates were provided on the following:

Hybrid AGM on June 21, 2024

- Thank you for your feedback on how to improve the AGM and member appreciation through the survey in spring 2023. We heard that almost 50% of members would be interested in participating virtually in the AGM, therefore on June 21, 2024, the AGM will enable both in person and online participation.

Member Appreciation and Recognition Activities are Changing

- With the AGM becoming hybrid and members providing many suggestions on how to improve appreciation and recognition activities (e.g., network events, training,

recognition certificates), changes are needed to how members are recognized and appreciated.

- This year, the first change is to provide a luncheon prior to the AGM rather than an evening banquet-style event. At this luncheon, the Dr. Sauer award and retirement awards will be presented.
- The second change is to establish a more personalized and meaningful approach to recognition. This is in response to the valuable feedback received from you on what you would like to be different.
- A survey was sent to all members to gather their feedback on what a more personalized and meaningful approach to recognition looks like between February 12 to 26, 2024. Thank you to everyone to who took the time to fill it out.
- Currently, the input is being analyzed. A What We Heard Report will be shared in the coming months.

Safety Codes Council Summit

- The Summit will be held October 2-4, 2024, at the Nisku Inn & Conference Centre.
- The Council is seeking speakers to deliver educational presentations on topics in technology and innovation in the safety codes system, as well as technical presentations focused within the building, fire, electrical, gas, plumbing, and barrier-free disciplines. Please visit the [Summit website](#) for more information and to apply to be a speaker.

5. Meeting Finalization

5.1. Round Table

- Ed: A new group will be formed under SCOPE for TC 444.
- Changes in CSA Standard 0 are anticipated, such as equipment can be certified to 90 degrees—not in the individual product standards.

5.2. Next Meeting

The next meeting was reconfirmed for June 17, 2024, in person at the Council office at 9:30 a.m.

5.3. Meeting Adjournment

The meeting was adjourned at 11:50 a.m.

– NEW ACTION ITEMS –

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Members were asked to review the Memorandum of Revisions to the 2021 CE Code that were published in the 2024 code and report at the next meeting on any issues that require further review and possible recommendation about adoption. [All]

– MOTIONS –

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Ken Hood / Hussein Desouki moved to provide an interim report at the next ESC meeting; CARRIED

– WORKING GROUP MEMBER LISTS –

WORKING GROUP	WORKING GROUP MEMBERS (chair)
Code Interpretation re. CSA C22.3 No 7:20 and C22.1 10-210 (Joint with EUSC)	<u>Nicolas Leblanc (co-chair)</u> Ken Hood, Gerry Doan
Energy Storage, Charging and Collection Systems (joint with BSC and FSC)	<u>Greg Briggs (co-chair)</u> Ed Knaggs
Medium Voltage Termination Products	<u>Adam Ghani</u> Nicolas Leblanc, Bert DeBruin, Denny Smith AMA support: Morgan Pendray-Frame
Electrical Vehicle Energy Management Systems	<u>Hussein Desouki</u> Adam Ghani, Patrick Conway, Gerry Doan