What We Heard Report: 2024 Canadian Electrical Code Consultation

Introduction

Technical Safety BC experts reviewed the 2024 Canadian Electrical Code to assess the impacts of the code change for the Province of BC.

From February 5 – 23, 2024, Technical Safety BC engaged with electrical clients on the topics below.

List of proposals or topics:

- Assess the level of industry support in adopting the 2024 Canadian Electrical Code as proposed, without amendments.
- Gauge stakeholders support towards a streamlined consultation approach without live engagement or advisory groups.
- Identify the level of involvement at the national CSA code review process.
- Increase speed of adoption of 2024 Canadian Electrical Code.
- Identify potential impacts on business operations or budgets.

This report summarizes the feedback we heard throughout the consultation.

Outreach and Participation

We reached out to industry groups and electrical clients by email. In total, 262 participants provided digital feedback during the consultation period.

Feedback method	Participants
Survey	255
Discussion and feedback (Engage site)	3
Email	4
1:1 meeting (pre-consultation)	ECABC & ICBA

Note: This table counts the number of participants in each method, regardless of whether they participated through multiple feedback channels

Participant Type

The intended participants for this consultation were mainly electrical clients, as they would be most impacted by the 2024 Canadian Electrical Code updates. In total, 262 electrical clients (representing about 2% of electrical clients) participated in this consultation. This table shows the number of participants who provided feedback during the consultation period.

Participant type	Participants
Electrical FSR	168
Electrical contractor	51
Electrical journeyman	13
Education provider	8
Professional engineer	4
Supplier	2
Other*	9

Note: "Other" includes labour advocates and government relations, retired TSBC safety officers, electrical consultants and education providers, gas fitters with electrical endorsements, professional engineers/FSRs/designers and manufacturers, realtors, homeowners, and refrigeration mechanics.

Feedback

Technical Safety BC invited participants to view consultation materials on TSBC's Engage site. Participants responded to an online survey asking about their level of support in adopting proposed changes to the 2024 Canadian Electrical Code.

Adopting the latest version of the Canadian Electrical Code in BC

64% in support for adoption of the Canadian Electrical Code with no amendments

(based on 255 survey participants)

- Most respondents who were in support of adoption did not share additional comments in the survey. Some participants expressed:
    - no concerns
    - minimal impact
- 9% do not support adopting the code. Participants expressed concerns about:
    - increased costs for materials and labour
    - more impact on customer and higher costs
    - impact to small businesses

When would their operations be able to meet all updated requirements in the electrical code?

72% would be able to meet all updated requirements in 3-6 months from today

(based on 255 survey participants)

- Some participants expressed:
    - ability to meet the requirements immediately
    - dependent upon when the BC government adopts the code

Involvement in the Canadian Electrical Code review at the national level via the Canadian Standards Association

88% were not involved in the 2024 Canadian Electrical Code review

(based on 255 survey participants)

- 9% were involved in the Canadian Electrical Code review at the national level (*based on 22 survey participants)*
    - Almost half (46%) were “somewhat involved” – i.e. did not attend meetings but submitted a ballot)
    - There is an even split of participants who were “very involved” – i.e. attended subcommittee meetings (27%) and “not very involved” – i.e. heard about it but did not get involved (27%)

Support for the pilot consultation approach

84% are either very supportive or somewhat supportive of the expedited and digital-only consultation approach

(based on 255 survey participants)

- Participants who were very involved in the code review at the national level expressed vocal support for the consultation approach.
    - Less involved participants expressed desire for inclusion of the code language or proposed code rule change

Major themes that arose during the code consultation period and clarifications

Theme	Clarification
Section 68-058 – Pool/hot tub bonding change	Bonding in and around the pool area is to eliminate voltage gradients. Voltage gradients in a wet environment can cause dangerous electric shocks or electrical-related drowning deaths. The bonding requirements have not changed when bonding unencapsulated, conductive structural reinforcing steel (rebar) used for pool decks, other perimeter surfaces, and conductive pool shells. This is how most pool installations are constructed today. When constructing a pool with encapsulated reinforcing steel the previous rule asked for an alternative means. The new rule now helps provide a consistent approach for industry. The rule previously did not require the pool deck (patio) with reinforcing steel to be bonded when installing manufactured hot tubs or spas (certified electrical product) to be placed on the patio. The new rule will require a minimum of copper #6 conductor to be placed around the hot tub or spa.

Section 12 – supported cable span distance change	During storm events longer support spans can be compromised by ice loading, falling trees, and high winds. Shorter distances provide for a more stable and secure installation. The structures in question (mobile homes, relocatable structures, or similar structures) have been constructed with lesser structural integrity than that of a building or structure that had been built to the BC Building Code (BCBC). Rule 12-318 only pertains to private lines. Utility lines are built by engineering standards, maintained and operated by the utility which qualified individuals and processes are used to oversee the distributed systems.
Section 8 – Electric vehicle supply equipment demand rules	There is no change proposed to the 2024 code to mandate the installation of EV equipment. Currently the Canadian Electrical Code does not mandate number of EV receptacles per stall. This is either a building code or building by-law requirement.
Include a code excerpt of the Canadian Electrical code for each proposed change	Since Technical Safety BC is **proposing no changes** to the Canadian Electrical Code, the MOR is available through CSA and contains all changes proposed since Q3 2023. The high-impact document is only meant to convey TSBC's thought on potential impact.
Provide advanced notice to industry stakeholders and clients	TSBC is a **participant** in code development, but ultimately CSA and the technical sub-committees determine which rules and changes occur. The extensive review opportunity is performed at the CSA level. Involvement at this level requires an individual or association to formally participate.

Next Steps

After a public code review process, TSBC analyses and considers the feedback we receive. We then recommend to the Province of BC whether to adopt the codes and make the proposed changes to the Ministry of Municipal Affairs and Housing on its sustainability for adoption. We will provide an update to the electrical industry on the outcomes and the effective date of any changes.