

VARIANCE

Canadian Electrical Code

SUBJECT: Alberta Electrical Utility Code - Scope

Preamble

Most high voltage overhead systems are under the care and control of an electrical utility and are consequently designed and installed in accordance with the Alberta Electrical Utility Code (AEUC). Non-utility installations of high voltage overhead systems are restricted to the application of the Canadian Electrical Code (CEC).

The main difference between the Codes exists because the CEC is generally a prescriptive code whereas the AEUC is a performance-based Code with engineering involvement. For example:

- Clearances within the CEC are set at a worst case scenario (see tables 30 – 34) while the AEUC provides for performance criteria that allow for the application of engineering principals (see clause 5 of the CSA C22.3 No. 1 Overhead Systems Standards as referenced in the AEUC).

Additional differences exist in the application of these codes with respect to equipment. Most equipment used in high-voltage overhead systems is not “approved” because third party certification programs are unavailable.

Based on understanding the differences between these two codes and utilizing design engineering expertise familiar with the application of the AEUC, Non-Utility Owners of high-voltage overhead systems should be able to design, install and maintain systems utilizing either the CEC or the AEUC.

Therefore the following province-wide Variance has been approved to allow this practise

Variance

Terms and Conditions

Equal or greater safety performance can be achieved with the application of the Alberta Electrical Utility Code (AEUC) in lieu of the Canadian Electrical Code (CEC) for the design and installations of high-voltage overhead systems. Under these terms and conditions, this Variance may be applied as an alternative solution to the Canadian Electrical Code.

In addition to the “Scope” paragraphs (a), (b), and (c), The Alberta Electrical Utility Code may also apply to:

- (a) The construction, maintenance and replacement of:
 - (iii) overhead transmission and distribution systems owned and operated by corporations accredited by the Safety Codes Council to administer the Safety Codes Act for installations under their care and control.

This Variance is granted under the following conditions:

- The AEUC is applied only insofar as it applies to high-voltage overhead transmission and distribution systems under the care and control and within the right-of-way of the Accredited Corporation.
- The installation design and selection of equipment is documented by a professional engineer, under their seal and signature, experienced in the application of the AEUC

This Province Wide Variance expires when:

- The practice described above is recognized in a newly adopted edition of the corresponding code; or
- It is revoked by the Administrator.

Expiry

To ensure that this variance is reviewed for ongoing relevancy and necessity, with the opinion that it may be reissued in its present or an amended form following a review, this variance expires on April 15, 2013.