

ELECTRICAL CODE VARIANCE

STANDATA

November 2020

18-ECV-064-218

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2018 Canadian Electrical Code

SUBJECT: Rule 64-218 Photovoltaic rapid shutdown

PURPOSE

Industry has identified an issue with current Canadian Electrical Code, Part I requirements concerning the installation of rapid shutdown systems for photovoltaic installations.

DISCUSSION

1. Photovoltaic (PV) rapid shutdown provides firefighter protection. Many Solar PV systems with rapid shutdown have the option of interconnecting with a fire alarm system. As a result, the fire alarm system may also initiate PV rapid shutdown.
2. Many roofs do not have permanent access and are considered inaccessible and most likely unreachable in an emergency. Many suitable and readily accessible locations within 9m of the array are not within sight of the array.

CODE REFERENCES

64-218 Photovoltaic rapid shutdown

- 4) A device used to initiate photovoltaic rapid shutdown shall be readily accessible and located
- a) for single dwelling units, at the supply authority meter location;
 - b) for other than single dwelling units, at the consumer's service equipment or supply authority meter location, and
 - i) at a permanent access to a building roof where an array(s) is installed; or
 - ii) within sight and within 9 m of the array(s); and
 - c) for a stand-alone system, in accordance with Items b) i) and ii).

VARIANCE

1. Rule 64-218(4)

In lieu of Rule 64-218(4), where a fire alarm system is interconnected with a Solar PV System, the fire alarm system, upon entering an alarm condition, shall initiate photovoltaic rapid shutdown.

Unless stated otherwise, all references in this STANDATA are to the Canadian Electrical Code, Part I, 2018.

Issue of this STANDATA is authorized by
the Provincial Electrical Administrator

[Original Signed]

Clarence C. Cormier, P.Eng.



2. Rule 64-218(4)(b)(ii)

In lieu of “within sight” of the array, the PV rapid shutdown initiating device shall be marked to indicate the location of the array it operates. The “within 9m” requirement shall be maintained.

This variance provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by the Safety Codes Act.

This VARIANCE is applicable throughout the province of Alberta and remains in force until revoked by the Administrator.

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