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Leviton comments to Section 110

Additional submitted attachment is included below.

Robert Hick
VP R&D Engineering

10/20/2017

Mr. Andrew McAllister
Commissioner California Energy Commission
CEC Docket # 17-BSTD-01

Dear Mr. McAllister:

Please accept the following comments to Draft 2019 Title 24 standards on behalf of Leviton Mfg.

Leviton Comment on following text used in 110.12:

a) *Demand responsive controls and equipment.*
All demand responsive controls and equipment shall be capable of receiving and automatically responding to signals using the OpenADR 2.0a or OpenADR 2.0b communications protocol, in addition to any other communications protocols used.

Comments:

OpenADR 2.0a/b is based on Internet Protocol (IP). OpenADR Devices (VENs) must process complex IP messages and this require significant hardware and software for any device to send and receive IP messages. The above text may be interpreted that every single control device must directly support OpenADR 2.0. This would be extremely costly, and management of OpenADR functions would be unwieldy for the Building Managers.

Many lighting controls today do not have IP connections (i.e. ethernet) to directly support the OpenADR 2.0 protocol and instead provides Demand Response capability by using contact closures, and other standard or proprietary digital protocols to communicate DR operation with a separate new or existing OpenADR2.0 VEN capable appliance (i.e. Central BMS System). This type of architecture allows simpler central management of DR events profiles, price data, and opt-in, thus encouraging use of DR systems. In fact, this type of architecture is supported by OpenADR Alliance in FAQ #20.

From OpenADR.org website: http://www.openadr.org/faq#20

Can I certify a server that accepts an OpenADR 2.0 message and then forwards a proprietary message to client device?

Yes. For example, the same device may be OpenADR certified as well as Wi-Fi® or ZigBee® certified.

In current 2016 version of Title 24 code, the requirement for "standards based" communications for DR has led to much confusion when one or more reliable contact closures are used between low cost lighting

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controls and then connected to OpenADR 2.0 compliant central BMS systems. Contact closures are one of the most reliable control systems and allows low cost control devices that are so electrically simple and intuitive that they are not worth of a "Standard". Simple digital protocols like CANbus, DALI, and other wire- or wireless based protocols may also be used from the OpenADR VEN to the lighting controls. Confusion exists where interpretation of "standards based" protocols was presumable meant for Utility side communication and not necessarily for inter-system DR communications after the OpenADR 2.0 device. However, it has become a constant issue where some specifiers and certifiers are rejecting these proprietary digital and contact closure means for inter-system communications of DR control from OpenADR 2.0 appliance.

This new text further confounds this issue; it will needlessly increase costs and complexity and is not in line with the intended use of OpenADR 2.0 as indicated by OpenADR Alliance.

We recommend the text be modified as follows:

Demand responsive controls and equipment.
All demand responsive controls and equipment shall be capable of, or shall be connected to a device that is capable of, receiving and automatically responding to signals using the OpenADR 2.0a or OpenADR 2.0b communications protocol, in addition to any other communications protocols used.

The net effect on DR functionality will be the same with significantly reduced costs and confusion.

Thank you very much for your consideration of our comment.

Sincerely,

Robert Hick
VP Engineering, Leviton Lighting and Energy Solutions.