Edison Electric INSTITUTE

Customer Solutions

August 19, 2020

International Code Council
2019 Group B Appeals Board
500 New Jersey Avenue, NW
6th Floor
Washington, DC 20001

Re: CE217-19 Parts I and II Appeal

Members of the ICC 2019 Group B Appeals Board,

The Edison Electric Institute (EEI) appreciates the opportunity to submit comments on the appeal of CE217-19 Parts I and II, which include requirements for electric vehicle charging infrastructure at residential and commercial buildings.

EEI is the association that represents all U.S. investor-owned electric companies. Our members provide electricity for about 220 million Americans and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than 7 million jobs in communities across the United States.

Driven by customer demands, technology developments, and federal and state regulatory obligations, the electric sector is undergoing a transition of its generating fleet that will continue over the next decade and beyond. Concurrent with this transition, EEI member companies are investing significant amounts of capital—over 124 billion dollars in 2019 alone—to make the energy grid smarter, more dynamic, more flexible, and more secure in order to integrate and deliver a balanced mix of resources from both central and distributed energy resources to customers.

Electricity is a domestically produced transportation fuel that will transform our nation's transportation sector. Today, the technology and infrastructure exist to promote transportation applications that move both people and goods using electricity as a fuel. This new generation of electric transportation will help the nation enter an era of clean transportation and enhance U.S. energy and economic security.

The continued electrification of the country's transportation sector is also a priority for EEI's own member companies, as more than 48 investor-owned electric companies are investing more than $1.5 billion in regulatory approved programs to deploy electric vehicle (EV) charging infrastructure and other activities to support electric transportation. CE217-19 is well-supported since it both saves energy and is similar to existing requirements in other codes and standards, including ICC codes.

Codes and Standards in Use Today Already Address Transportation

The language contained in CE217-19 is already in use in multiple other building codes, which should facilitate its adoption. "Minimum" or "base" energy codes and standards, such as the IECC and ASHRAE 90.1, already address transportation systems with similar language. Transportation systems are also addressed in "above code" and "green" building energy codes and standards, such as:

- ASHRAE 189.1-2017
- ASHRAE 189.1-2020
- LEED Versions 3.0, 4.0, and 4.1
- National Green Building Standard 2015
- National Green Building Standard 2020

As such, CE217-19 should be accepted since it is already well understood in practice.

The Requirements in CE217 Parts I and II Will Save Energy

When electric vehicle charging stations are installed at residential or commercial buildings, there will be energy savings that result. Incentivizing Level 2 charging—which is charging at 208-240 volts—over Level 1 charging—charging at 120 volts—will inherently save energy given that Level 2 charging stations is more efficient by an average of almost six percent from Level 1 charging. *See* NASEO Transportation Technical Manual (June 2014)[1]. As numerous studies suggest[2] , this is inherently the case since Level 2 charging can deliver greater electricity to an EV battery in a shorter period of time, allowing for more efficient use of the grid and the charging equipment. As such, CE217's incentivization of Level 2 charging will save energy and should thus be accepted.

Summary

The Appeals Board take action to deny the appeals of CE217-19, Parts I and II, since the language is already well understood and CE217 will save energy.

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[1] *See* https://naseo.org/data/sites/1/documents/publications/NASEO-Transportation-Technical%20Reference-Manual.pdf

[2] See https://ieeexplore.ieee.org/document/7046253, https://www.researchgate.net/publication/272377451_Assessment_of_Level_1_and_Level_2_Electric_Vehicle_Charging_Efficiency, and *Nissan Technical Center North America March 12, 2020 "Level 1 vs Level 2 EVSE Energy Consumption of Production Electric Vehicles"*.

Thank you for your review and consideration of our comments. Please contact Steve Rosenstock (202-508-5465, srosenstock@eei.org) if you have any questions about EEI's comments.

Respectfully submitted,

Steve Rosenstock, P.E.
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cc: Adam Cooper
Kellen Schefter

Attachment: *Nissan Technical Center North America March 12, 2020 "Level 1 vs Level 2 EVSE Energy Consumption of Production Electric Vehicles".*