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NEMA Comments on Low-Power Mode Roadmap DCP RFI

Additional submitted attachment is included below.

National Electrical Manufacturers Association

The association of electrical equipment
and medical imaging manufacturers
www.nema.org

November 18, 2024

Dr. Andrew McAllister, Commissioner
California Energy Commission
Docket Unit; Docket No. 17-AAER-12
715 P Street, MS-4
Sacramento, CA 95814

Submitted Electronically To: Docket 17-AAER-12 at
https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=17-AAER-12

Re: NEMA Comments on Request for Information (RFI) and Feedback on Proposed Data Collection Procedure for Low-Power Mode Roadmap

Dear Commissioner McAllister:

The National Electrical Manufacturers Association (NEMA) represents over 300 electrical equipment and medical imaging manufacturers that make safe, reliable, and efficient products and systems. Together, our members contribute 1% of U.S. GDP and directly provide nearly 460,000 American jobs, contributing more than $250 billion to the U.S. economy. Learn more at www.nema.org.

Members of NEMA's Lighting Systems Division and the Wiring Devices, Fire & Life Safety, Connected Building Systems, Metering, Electrical Submeter, and Residential & Commercial Controls Sections have carefully reviewed and developed the following comments on the subject RFI for the Commission's consideration.

While we prefer a more predictable process with an explicitly stated scope making clear what is of concern versus what is not, NEMA member manufacturers remain eager to support the Commission's pre-regulatory effort.

Our responses, beginning on the next page, are organized by the guiding questions posed in the Request for Information.

To avoid conflict with existing California building energy and life safety codes and the expenditure of additional time and effort, we respectfully ask the Commission to explicitly exclude such equipment from the scope of this effort moving forward.

Thank you again for your attention to these concerns. As reflected in our responses, we would like to meet with Commission staff soon to discuss our questions and concerns in greater detail. Please contact me at alex.baker@nema.org, as we are most eager to assist in this process.

Regards,

Alex Baker
Director, Regulatory & Industry Affairs

Scope

1. *What is your feedback regarding the scope of the DCP?*

Semantically, the scope of the Data Collection Procedure ("DCP") should presumably be whatever the California Energy Commission decides is in scope of this Title 20 pre-regulatory effort (i.e., the "LPM Roadmap" or "Roadmap"). Indicating that the CASE team's draft Data Collection Procedure has a potentially different scope is confusing, unless intended to signal that other procedures may be considered for products ultimately scoped within the Roadmap but outside of the DCP. Does the Commission intend for other procedures to be used in this effort?

The Commission's approach to scoping this Title 20 pre-regulatory effort, as captured in Figure 1 of the RFI, creates a moving target for manufacturers that appears to make it impossible to determine the appropriate level of engineering support to dedicate to the effort in the short term or the long term. In our view, rather than effectively conveying that *anything unregulated (as defined) is potentially in scope*, it would be more effective for the conversation to be framed by what the Commission explicitly decides to scope in.

The LPM Roadmap as detailed in Figure 1 does not include a step in which the scope of this Roadmap effort is definitively determined and communicated to regulated parties. Rather, it illustrates a potentially endless cycle of scope revision under the constant threat of regulation. NEMA members would favor a more clearly defined way of working.

The subject RFI states that "*The DCP will standardize the collection of the power consumption data for consumer electronics and appliances*", but it does not define what is considered a consumer device versus one intended for commercial or industrial applications. If the Commission is considering regulations for non-*consumer* products, does this statement mean the CASE team's Procedure is only to be applied to the consumer goods within scope of this Roadmap?

Definitions for other key terms are ambiguous, inhibiting our full understating of the Commission's intentions. Of greatest concern are the terms "*user*" and "*primary function*" as they relate to multi-functional devices. "*User*" does not appear to be defined in the RFI or the DCP V3. A user could be a person, or, with regard to lighting control systems, it could be an input from a required building system, protocol, routine, etc. Put another way, when addressing component devices of required building systems, any occupant of the space at any time could be defined as a user for purposes of safety, security, and overall energy efficiency, including a person who merely walks into a room, generating an 'occupancy' signal without entering lighting or HVAC commands.

Without additional clarity, NEMA members cannot accurately determine which products should be considered potentially in the scope of this Roadmap effort beyond what the Commission has detailed as examples in the RFI's Appendix A.

NEMA requests a meeting with Commission staff to better understand the intent, and how NEMA members can be helpful to this process.

2. *Are there any in-scope product categories listed in Appendix A that may not be effectively tested using the CASE Team's proposed DCP V3?*

It is unclear if this question refers to the Appendix A attached to the RFI, labeled "*Examples of in-scope product categories*", or if this refers to Appendix A in the DCP V3 document, labeled "*Vetted product categories and likely primary function(s)*".

The RFI states: "*The LPM Roadmap is a method to promote energy savings in devices in their inactive condition, i.e., when not performing their primary function for a user.*"

Lighting control systems and their various components operate in active mode only. The purpose of these systems – which occupants rely upon to provide timely illumination, including for emergency egress – is to monitor for system inputs and control connected lighting loads accordingly. For many of these components, active mode is the only operating mode, otherwise the devices would not provide the functionality for which they were installed.

In some instances, as written the DCP V3 would appear to capture the power consumption of connected loads in addition to the consumption of the device under test ("DUT") alone. In our view, a lighting control device consuming X watts to control a load of Y watts should not be characterized in this Roadmap effort as using (X + Y) watts of power. The power consumption of the controlled load should not be captured by the DCP.

3. *Are there any products not listed in Appendix A that should be included in the scope of the DCP?*

To provide informed feedback, NEMA requests a meeting with Commission staff to better understand the intent**.**

4. *Is there anything else CEC should consider with regards to the scope of the DCP?*

"Light switches" are electrical disconnects that do not themselves consume power. Applying the proposed Procedure to test the on/off functionality of light switches would be overkill. Light switches, wall dimmers, and circuit breakers should be exempted from the Roadmap scope, and by extension, from the DCP scope.

Scoping in sensors and associated system components that control lighting systems risks unintended consequences that the Commission must be careful to avoid. Sensors incorporated into lighting control systems not only inform the control of lighting loads but increasingly also inform building management systems and HVAC control systems, and thus heavily factor into the ability of building owners and operators to minimize overall energy consumption and maintain code compliance. These sensors and associated system components and controllers must work in active mode to provide their critical functionality; this Roadmap effort should avoid targeting small component energy savings that could disrupt the sizeable energy savings provided by building management systems.

Life safety systems including smoke and CO detectors incorporated into NFPA 72 and the International Building Code operate in active mode on primary and backup power, otherwise they would not fulfill their intended purpose. These devices are noted as "*Infrastructure*" in the RFI Appendix A, which further confuses their presumed designation as "*consumer*" goods at the top of the document.

For some luminaires and ceiling fans with light kits, lighting controls with federally regulated standby power are integrated into the original product. While manufacturers may make replacement components available for aftermarket product repair, these goods should be exempted from the Roadmap scope.

Finally, NEMA members acknowledge the Commission's intent to catalog all unregulated products (as defined) and drive down product power consumption with a pre-regulatory process. We note the Commission's explicit threat to regulate products that do not achieve the Commission's to-be-determined performance goals. In the interest of fairness, we ask that should the Commission later identify products of interest that have not been presented by industry stakeholders or others, that regulated entities be given the opportunity to provide relevant test data for the Commission's consideration before proceeding with a regulatory process.

cont'd

Data Collection Procedure (DCP)

5. *What is your feedback on the method of establishing DCP?*

The current RFI process has not provided enough time for affected entities to thoroughly review and comment. NEMA members would prefer a collaborative process that more closely integrates manufacturers' expertise.

We note that the docket remained inactive for all of 2022 save for the submission of the IOUs' anonymized *LPM List of Equipment Tested, January 12, 2022*. The docket remained similarly quiet in 2023 with one comment letter posted with several IOU proposals for which the CEC did not circulate any communications of its own. The subject RFI, distributed in Q4 2024, was the CEC's first docketed communication to stakeholders on this Roadmap effort since August 2021, relies heavily on the IOU proposals, yet provides less than 50 days for manufacturers to develop commentary on a wide range of important concerns.

We would favor a process that provides regulated entities – and those under threat of regulation – more time to develop informed responses that would be more useful to the Commission and stakeholders broadly.

6. *Do you think the proposed DCP is appropriate for the initial data collection for the LPM Roadmap? If not, why so?*

Regrettably, for lighting products, the proposed DCP V3 is not appropriate for the initial data collection for the LPM Roadmap.

IEC 62301:2011 Household Electrical Appliances - Measurement of Standby Power was written to gather data about appliances generally, but its implementation with lighting products proved very problematic for test laboratories.

IEC 63103:2020 Lighting equipment - Non-active Mode Power Measurement was subsequently published in July 2020 to address these problems and provide more appropriate testing methodology for lighting products.

ANSI C137.63103-2021 Lighting Systems - Non-Active Mode Power Measurement is IEC 63103 adopted as an American National Standard. This is a far more appropriate reference for testing lighting product standby power, and we kindly ask you to modify the DCP to make use of this standard for testing any lighting products that may be scoped into this effort

Consumer residential security and camera systems typically exhibit fluctuating current that may be difficult to capture with the DCP as drafted.

7. *Is there anything else CEC should consider with regard to the DCP?*

NEMA members request a meeting with CEC staff to allow for a detailed discussion about DCP V3.

Data Collection

8. *What is your feedback on CEC's intent to utilize the MAEDbS platform for the initial data collection?*

NEMA members support the CEC's intent to utilize the MAEDbS platform for initial data collection.

9. *Is there any information that should be collected that is not in the DCP Reporting Tool V3? If so, please explain why.*

Data collected in this process should be limited to those necessary to support the pre-regulatory process.

10. *Is there any information in the DCP Reporting Tool V3 that should not be collected? If so, please explain why.*

Manufacturer names and model numbers should not be collected unless the Commission intends to maintain manufacturer confidentiality when making the collected data available for public review. NEMA members will seek written assurance to this effect prior to submitting data.

11. *Is there anything else CEC should consider with regards to using MAEDbS for DCP data collection?*

NEMA members request a meeting with CEC staff to better understand the Commission's intentions regarding DCP data collection.

Device Categorization

12. *What is your feedback on this method of grouping and categorization, especially regarding what information is collected during the initial data collection?*

NEMA members would value a discussion with Commission staff to better understand the method of grouping and categorization. The RFI simply does not provide enough detail for us to provide informed commentary to the Commission and other stakeholders.

Data Transparency

13. *Please share your feedback or concerns with this approach to data handling.*

We appreciate the stated desire to "*further improve collaboration with industry*", but the document does not detail how the collected data will be made publicly available. Ensuring transparency is always appreciated in regulatory efforts, but does the Commission intend to anonymize the gathered data before sharing it with the public? The RFI does not provide such details.

The IOUs' 12 January 2022 letter to the Commission provided anonymized test data. Does the Commission intend to anonymize data collected through MAEDbS for this pre-rulemaking Roadmap effort? Manufacturers are unlikely to engage in a voluntary data reporting process if their performance results will be shared with the public – including market competitors – with attribution.

Industry Participation

14. *Please provide your recommendations for the CEC to achieve high participation in data reporting.*

Referencing ANSI C137.63103-2021 will make it far easier for lighting manufacturers to participate in voluntary pre-regulatory data reporting as this is the method of measurement they commonly use. Maintaining reference to IEC 62301:2011 will have the opposite effect; the global lighting industry abandoned use of this standard long ago.

15. *Please share any known or possible barriers to high participation in data reporting, including details on the cost of compliance with the voluntary data reporting.*

The cost of "*compliance*" with voluntary data reporting will be minimized by leveraging existing national and international standards tailored for the specific products that will eventually be scoped into this effort. These are tests that manufacturers would normally conduct as the cost of doing business in their respective market sectors, while deviations – including developing a new test procedure from whole cloth – will necessarily add cost that manufacturers may not be willing to pay, for data that would be used for only one purpose.