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Tesla_Comments_Proposed_Code_Change_130_2c_EV_Lighting

Additional submitted attachment is included below.

BEFORE THE CALIFORNIA ENERGY COMMISSION Docket No: 25-BSTD-03**Project Title:** 2028 Energy Code Pre-Rulemaking**Subject:** Proposed Code Modification to Section 130.2(c) – Outdoor Lighting Controls for Public EV Fast-Charging Infrastructure**1. Executive Summary**

Under the current 2025 Title 24, Part 6 Energy Code, public Electric Vehicle (EV) fast-charging stations are regulated under general parking lot lighting standards. This requires lighting to dim by 50 to 90 percent after 15 minutes of vacancy and assumes a baseline illumination of 0.2 footcandles.¹

However, public EV fast-charging stations are not standard parking spaces; they are 24/7, unstaffed, high-voltage fueling and financial transaction kiosks. Applying standard parking lot dimming rules to these sites compromises user safety, conflicts with state and federal infrastructure requirements, and ignores established lighting standards for point-of-sale (POS) terminals.

This proposal requests a formal exception to Section 130.2(c) for publicly accessible, 24/7 EV fast-charging stations, supported by industry-wide data demonstrating the permanence of these installations and the critical safety requirements of unstaffed fueling environments.

2. Proposed Code Modification

Note: Exact regulatory text will need to be finalized by the engineering/legal teams, but the framework should be:

Modify Section 130.2(c) (Outdoor Lighting Controls) to add a new Exception:

EXCEPTION [X] to Section 130.2(c): *Outdoor lighting directly illuminating publicly accessible, 24-hour Direct Current Fast Charging (DCFC) stations, including the charging equipment, point-of-sale interfaces, and the immediate vehicle charging spaces, is exempt from the motion-sensing reduction requirements and automatic scheduling control requirements, provided the lighting is controlled by a photocell or astronomical time switch to ensure dusk-to-dawn operation.*

3. Justification Part A: Infrastructure Permanence

During pre-rulemaking discussions for the 2028 code cycle, CEC staff raised concerns that EV charging stations, often located within larger retail parking lots, might be temporary installations that could be dismantled and reverted to standard retail parking, leaving behind non-compliant lighting. Industry-wide data and government programs demonstrate that DCFC stations are permanent, multi-year infrastructure.

¹ [https://webstore.ansi.org/preview-pages/IESNA/preview_IES+RP-20-14+\(Revised+2016\).pdf](https://webstore.ansi.org/preview-pages/IESNA/preview_IES+RP-20-14+(Revised+2016).pdf)

- **Federal & State Operational Mandates:** Publicly funded charging infrastructure is legally required to remain operational for extended periods.
 - The Federal NEVI Program (23 CFR § 680.106(i)) mandates a minimum five-year operational period.²
 - The CEC's own CALeVIP 2.0 program requires DC fast chargers to remain operational for a minimum of six years and explicitly mandates as a baseline eligibility condition that sites be "*well-lit [and] secure*."³
- **Industry Financial & Lease Norms:** Public SEC filings from major network operators prove these are long-term capital investments.
 - EVgo Inc. assigns a 12-year amortizable life to site host relationships and a 40-year useful life to building improvements in its Form 10-K.⁴
 - Electrify America is executing a \$2 billion, 10-year infrastructure build-out under a federal consent decree.⁵
 - Industry real estate norms for EV charging ground leases have shifted to 15- to 25-year terms to match the 10- to 15-year useful lifespan of the DCFC equipment itself.⁶

4. Justification Part B: Safety & Illumination Standards

Standard parking lots are designed for low activity and require only 0.2 footcandles (IES RP-20). In contrast, an EV fast-charger functions as a 24/7, unstaffed, outdoor financial transaction kiosk, requiring user interaction with payment credentials and charging equipment at night.

- **The ATM Analogy (Cal. Fin. Code § 13041):** California law already dictates strict lighting standards for 24/7 unstaffed electronic point-of-sale kiosks. The California ATM Safety Act requires a minimum of 10 footcandles at the face of the machine and 2 footcandles within a 50-foot radius.⁷ EV chargers are functionally similar to ATMs, yet the current energy code forces them to operate at a fraction of this established safety baseline.
- **Federal Recognition of Lighting as Security:** The Federal Highway Administration (23 CFR § 680.106(e) and (h)) mandates that NEVI-funded stations be accessible 24/7/365 and

² <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-G/part-680/section-680.106>

³ <https://calevip.org/general-eligibility-requirements>

⁴ <https://www.sec.gov/Archives/edgar/data/1821159/000155837023005121/evgo-20221231x10k.htm>

⁵ <https://www.electrifyamerica.com/our-plan/>

⁶ <https://www.stevens-bolton.com/insights/102lzjn/ev-charging-point-leases-key-considerations/>

⁷ <https://law.justia.com/codes/california/code-fin/division-4/chapter-4/section-13041/>

explicitly categorizes station lighting as a "physical security [strategy]" to prevent tampering and ensure driver safety.⁸ Vacancy-based dimming is fundamentally inconsistent with continuous security lighting.

- **IES Standards for Fueling & Security:**

- Established IES and PEI illumination benchmarks for comparable outdoor fueling and point-of-sale environments range from 10 to 75 footcandles, significantly exceeding the 0.2 footcandle parking lot baseline.⁹
- For parking areas where security is an issue, IES G-1-22 recommends an average of 3 footcandles.

- **Crime Prevention and Vandalism:** EV charging sites are increasingly targets for vandalism. Industry data shows that copper cable theft at EV stations more than doubled between 2023 and 2024.¹⁰ Consistent, undimmed lighting is a core tenet of Crime Prevention Through Environmental Design (CPTED) guidelines published by the U.S. DOJ to deter such activity.¹¹

5. Conclusion

Applying standard parking lot vacancy controls to 24/7 EV fueling infrastructure creates a direct conflict with established safety standards. Because these sites are permanent, multi-decade installations, granting an exception to Section 130.2(c) will not create a loophole for standard retail parking. We respectfully request the CEC adopt this modification for the 2028 code cycle to ensure a safe, secure, and accessible charging network for all California drivers.

Respectfully submitted,
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⁸ <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-G/part-680/section-680.106>

⁹ [https://www.paclights.com/learning-center/lighting-qa-gas-station-canopy-lighting/;](https://www.paclights.com/learning-center/lighting-qa-gas-station-canopy-lighting/)

https://www.ledlightexpert.com/led-gas-station-lights?srsId=AfmBOor3PfySci5Tk41TYjkymRn_qjC93wGUUP4WAVda3cU6Qbpn0BA2

¹⁰ <https://www.chargepoint.com/about/news/chargepoint-leads-fights-against-industry-wide-ev-charger-cable-theft-anti-vandalism>

¹¹ <https://www.ojp.gov/ncjrs/virtual-library/abstracts/cpted-crime-prevention-through-environmental-design-guidelines>