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Additional submitted attachment is included below.

**STATE OF CALIFORNIA
BEFORE THE CALIFORNIA ENERGY COMMISSION**

In the matter of:)	Docket No. 24-BSTD-01
)	
<i>2025 Energy Code Rulemaking</i>)	SMUD Comments Re: 2025 Energy Code Express Terms
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)	May 13, 2024
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**Comments of SACRAMENTO MUNICIPAL UTILITY DISTRICT on the
2025 Energy Code Express Terms**

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to comment on the California Energy Commission’s (CEC) proposed Express Terms for 2025 Building Energy Efficiency Standards (Energy Code)¹ and related rulemaking documents. SMUD has long supported building decarbonization and offers programs to assist builders and homeowners in our region to increase energy efficiency and electrify building end-uses. The Energy Code plays an important role in accelerating cost-effective building efficiency and electrification measures, including heat pumps, that save energy and money for customers, reduce greenhouse gas emissions, and improve public health outcomes, while saving customers money.

SMUD offers the following comments on the 2025 Energy Code:

- Support for the proposed expansion of heat pump baselines for new buildings.
- Support for the additional electric-ready requirements for buildings where electric end-uses are not yet prescribed.
- Recommend clarifying the battery energy storage control strategy requirements to support participation in evolving load flexibility initiatives.

SMUD’s comments are further described below.

SMUD supports the proposed expansion of heat pump baselines for new buildings.

SMUD appreciates the CEC’s continued leadership in encouraging the installation of heat pumps through the expansion of prescriptive requirements for new residential and nonresidential buildings. Under the proposed Energy Code, new single-family homes, as well as new additions served by new space or water heating systems, would have heat pump baselines for both space and water heating. The proposed Energy Code also establishes prescriptive heat pump requirements for individual water heating

¹ Refer to <https://efiling.energy.ca.gov/GetDocument.aspx?tn=255315-2&DocumentContentId=90996>.

systems serving dwelling units in new low-rise multifamily buildings, complementing the existing heat pump space heating baseline for these buildings. Establishing prescriptive heat pump baselines for space and water heating will encourage the installation of cost-effective, efficient, all-electric construction while still ensuring compliance flexibility for individual builders.

SMUD also supports the incremental proposals to expand prescriptive heat pump space heating requirements to include multi-zone systems for medium and large offices, financial institutions and libraries, and large schools. SMUD recognizes that the non-residential building sector is diverse and has additional complexities; however, pioneering new projects are demonstrating the potential for all-electric construction. For example, the Department of General Services' new May S. Lee State Office Complex, located on Richards Boulevard in Sacramento, comprises four all-electric office towers and features a dining area, gym, daycare center, auditorium, and the country's largest all-electric commercial kitchen. SMUD believes there are significant and growing opportunity for cost-effective, efficient electric construction in non-residential buildings and supports the steps in the Energy Code to accelerate key elements through expanded heat pump baselines.

SMUD supports the proposed electric-ready requirements for buildings where electric end-uses are not prescribed.

SMUD supports the expansion of electric-ready requirements in new multifamily and non-residential buildings. The proposed Energy Code includes electric-ready requirements for individual and central water heating systems in new multifamily buildings where heat pumps are not yet prescribed. These requirements are cost-effective and will save homeowners and building owners money when systems are changed out in the future. This is crucial given the state's heat pump goals, the California Air Resources Board's plan to establish future zero-emission space and water heater standards and increasing customer interest in heat pump technology. For example, SMUD has partnered with a multifamily property in Citrus Heights to install 70 heat pump water heaters for individual units. A second phase of the project, comprising an additional 70 systems, was recently approved. SMUD is also working with Mercy Housing on the installation of a centralized CO₂ heat pump water heater for a residential apartment building.

SMUD similarly supports the inclusion of cost-effective electric-ready requirements for new commercial kitchens. Multiple SMUD customers have expressed interest in electrifying commercial kitchens in existing buildings, and SMUD is supporting several kitchen electrification projects with local nonprofits. In some cases, the costs associated with electric infrastructure upgrades can pose barriers to kitchen electrification. Incorporating electric-ready requirements in new construction, when it is most cost effective, can significantly reduce these cost barriers

SMUD recommends clarifying the battery energy storage control strategy requirements to support participation in evolving load flexibility initiatives.

Battery storage installed for purposes of Energy Code compliance must meet certain requirements specified in Appendix JA12 of the 2025 Joint Appendices.² These requirements include selecting a specified control strategy for battery cycling – such as “basic” control, time-of-use control, advanced demand flexibility control, and alternative controls as approved by the CEC – that must be programmed at installation for the portion of the battery that is used for compliance.

SMUD provides incentives for battery storage installations and recently launched a residential battery virtual power plant program to optimize battery dispatch for the benefit of customers and the grid. SMUD is also planning to develop similar program offerings for commercial and multifamily customers. SMUD anticipates that programs may be modified over time, informed by evolving grid conditions as well as measurement and verification results. To that end, SMUD appreciates that Appendix JA12 includes a range of control strategies, including those that incorporate signals from utility programs. However, SMUD wishes to clarify several key elements to ensure that the 2025 Energy Code requirements do not unduly restrict customers’ future ability to participate in evolving programs and rates.

First, SMUD recommends expressly clarifying in Appendix JA12.4 that customers may elect to switch between control strategies after the battery is initially programmed. Further, SMUD recommends clarifying that, after demonstrating compliance, customers may switch to battery control strategies beyond those enumerated in JA12.4.1-5. Utility and third-party demand flexibility initiatives are developed separate from the Energy Code, and SMUD believes it would be counter to the state’s load flexibility goals if customers are limited to only those control strategies that are expressly identified in the 2025 Energy Code or that must separately be approved by the CEC Executive Director. Finally, SMUD recommends updating the requirements for demand responsive controls, as specified in section 110.12 (a), to include *either* OpenADR *or* alternative open communications protocols. In addition to OpenADR, SMUD’s Distributed Energy Management System may leverage other standards, such as IEEE 2030.5, to integrate specific load flexibility and demand response applications. SMUD encourages the CEC to recognize multiple open standards that are used to communicate demand response events.

Conclusion

SMUD looks forward to continued collaboration with CEC staff and other stakeholders on the 2025 Energy Code and building decarbonization efforts.

² Refer to <https://efiling.energy.ca.gov/GetDocument.aspx?tn=255315-3&DocumentContentId=90997>.

/s/

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