

BEFORE THE CALIFORNIA ENERGY COMMISSION

Energy Provisions of CALGreen

Docket #15-CALG--01

**COMMENTS OF THE
LOCAL GOVERNMENT SUSTAINABLE ENERGY COALITION
ON
CALIFORNIA GREEN BUILDING CODES STANDARDS, 45 DAY LANGUAGE**

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For THE LOCAL GOVERNMENT
SUSTAINABLE ENERGY COALITION

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The Local Government Sustainable Energy Coalition¹ (“LGSEC”) appreciates the opportunity to provide comments regarding the California Green Building Standards Code under consideration by the California Energy Commission (“Commission” or “CEC”). The LGSEC generally agrees with the revisions to CALGreen and welcomes the Tier 3 addition in A4.203.1.2.3 to more formally recognize Zero Net Energy (“ZNE”) Buildings through the Energy Design Rating metric. We are pleased to see that California Building Energy Code Compliance (“CBECC”) produces this metric and look forward to realizing its promise in the coming years. The Energy Design Rating provides a much needed metric for setting whole-building energy use targets for low-rise residential new construction projects. We look forward to supporting the Commission in expanding the Energy Design Rating to other building types, since high-rise residential and commercial dominate new construction in cities. We suggest considering development of a more robust set of complementary metrics to accompany the Energy Design Rating, especially for alterations.

While we support the ZNE Tier, it is not necessary to tie “Tier 3” to achieving the 30% energy budget reduction of “Tier 2.” The Energy Design Rating affords the opportunities to (1) take the critical next step of considering whole-building energy tradeoffs in design decisions, and (2) recognize improvements in efficiency beyond the loads which can be directly regulated. Tying the ZNE path to Tier 2 may pose considerable challenge to projects (and potential for early adoption in local reach codes) in coastal climate zones. For example, research by the engineering firm ARUP found that in San Francisco’s climate (CZ3), under Title 24 (2013) the sum of all loads for which the Commission-approved software recognizes performance-based

¹ The LGSEC is a statewide membership organization of cities, counties, associations and councils of government, special districts, and non-profit organizations that support government entities. Each of these organizations may have different views on elements of these comments, which were approved by the LGSEC’s Board. A list of our members can be found at www.lgsec.org.

tradeoffs represent only 30% of expected total TDV energy consumption.² While the Energy Design Rating is an independent calculation, the percent-beyond-code approach to Tiers (and reach codes in general) has diminishing returns and diminishing practicality. A ZNE path based

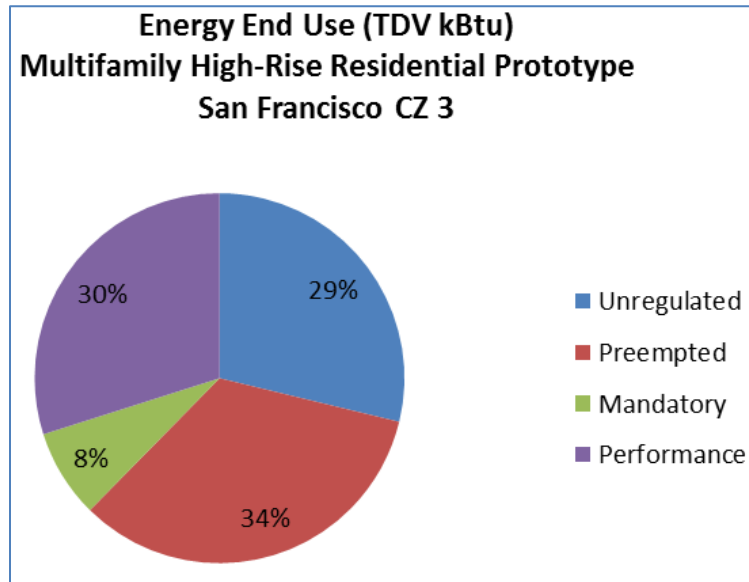


Figure 1. Potential Energy Reductions

upon the whole-building Energy Design Rating should afford maximum design flexibility (after compliance with the Energy Standards); as the Energy Standards grow more stringent, 30% savings from performance loads may not be the most practical, cost-effective, or programmatically desirable approach

to pursue improvement.

Energy Design Ratings provide great promise, and the LGSEC hopes to see this metric used as the International Code Council is making strides in building performance-based and outcome-based compliance pathways. The LGSEC supports the CEC in further applications of this metric due to its potential to simplify compliance pathways.

One additional area of interest is using CBECC to further model more granular (i.e., end use) Energy Design Rating metrics for both residential and nonresidential existing building alterations. These metrics could provide additional opportunities for streamlining compliance pathways in alterations. The LGSEC has a keen interest in the Energy Design Rating and its

² ARUP (2014), “San Francisco Outcome-Based Reach Building Energy Code - Proposal for Implementation.”

potential uses in energy-related ordinances and tools, which are referenced in the AB 758 Existing Buildings Energy Efficiency Action Plan.

Additionally, it would be valuable to align any streamlined compliance pathways with methodologies employed by the California Public Utilities Commission for market interventions, incentives, and EM&V.

Looking forward, the LGSEC urges the Commission to consider steps for a future pre-rulemaking to consider an additional Tier to address positive energy buildings – buildings that are allowed and encouraged to contribute to distributed generation resources by generating more energy on site than the building consumes.

Respectfully submitted,



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