

BEFORE THE CALIFORNIA ENERGY COMMISSION

2016 Buildings Energy Efficiency Standards

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**COMMENTS OF THE
LOCAL GOVERNMENT SUSTAINABLE ENERGY COALITION
ON
PROPOSED REVISIONS TO TITLE 24**

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For THE LOCAL GOVERNMENT
SUSTAINABLE ENERGY COALITION

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I. Introduction

The Local Government Sustainable Energy Coalition¹ (“LGSEC”) is pleased to provide these brief comments on the California Energy Commission’s (“Commission” or “CEC”) revisions to the Title 24 Building Energy Code. The LGSEC welcomes the progress and clarity built into the proposed language for Parts 1 and 6. It is clear that the Commission is taking steps to streamline the code especially addressing existing building alterations. Below we provide comments on specific changes under consideration.

II. Comments

A. Part 1: Data Registry(s)

10-103: As the pending approval of the data registry(s) approaches for Certificate(s) of Compliance, local governments seek to play an active role and support the streamlining of local enforcement of code. The data registry provides great benefits; however, the enabling of local governments’ utilization of Compliance Data Exchange Files is an area that has received neither enough attention, nor resources. In the Joint Appendix JA7.4.7, while no changes are proposed, the LGSEC suggests the document should acknowledge that the enforcement verification for compliance documents provide sufficient latitude for permitting jurisdictions to perform their duties as they find best appropriate. Additionally, this latitude presents an opportunity for statewide collaboration to standardize the software. The permitting and compliance rate studies exhibit great difficulty in market characterization. This occurs for reasons including difficulty for researchers in accessing permitting data, data not being available electronically, and challenges in specialized studies reaching adequate sample sizes in studies. The AB 758 work

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.

that is ongoing may provide opportunities for collaboration that can leverage the registry(s), along with local resources for electronic standardizing the application, electronic data format, permitting compliance and documentation processes proposed in JA7.6.3.1.2, JA7.7 and the 2016 Alternative Calculation Method (‘ACM’) Reference Manual.

B. Part 6: Cost Effectiveness

The proposed regulations show a clear effort to streamline code in both residential and nonresidential applications. There are forward-thinking changes such as the allowance for solar photovoltaic tradeoff compliance credits that will be seen in the Alternative Calculation Method Reference Manual. The updates to the Lifecycle Costing prove to be beneficial to the cost-effectiveness studies. However, there is still more to be done.

When the CASE reports determine cost effectiveness at the measure level, the baseline is taken from the current code requirements. This is a generalized baseline assumption for typical conditions based on a number of factors including Lifecycle Costing Methodology (“LCC”) and Time Dependent Valuation (“TDV”). However, cost effectiveness for a building owner in the real world may be radically different from the CASE baseline, rendering code compliance not cost effective when using the same calculation method used for code development. There is a need for a separate, cost-effective solution for existing building alterations, and compliance pathways that mitigate building alterations that are non-permitted or below code.

As seen in AB 758 Existing Buildings Energy Efficiency Action Plan, “Code-as-Baseline” challenges are well known to the CEC, and their impacts to CPUC programs can be quite large. On page 7 of the AB 758 Action Plan, the CEC states “if this disconnect between codes and standards and voluntary programs is not addressed, attractive upgrades of existing

buildings may go unrealized or be driven underground – done without a permit.”² The LGSEC recommends that the Commission and its consultants work with stakeholders to determine a new cost-effectiveness framework that accounts for both actual grid impact of unit energy savings and consumption, as well as accounting for CPUC program interventions. The former topic will help characterize stranded savings, inform existing building code language, and provide compliance pathways with “to code” scenarios in existing buildings. The latter of the two issues, program interventions, will help characterize market potential in the above code savings. These two approaches to cost effectiveness should align with user focused and performance driven approaches, rather than a one-size fits all approach.

Another problem with the “code baseline” strategy is that it relies upon natural gas furnace equipment for the “base case” scenario. This is especially seen in the continued reliance on natural gas as the fuel source for space heating, water heating, and cooking systems in residential code. Codifying this baseline perpetuates the development of natural gas-based infrastructure in our built environment, making it more challenging over the long run and less cost effective to remove. The focus on a ZNE standard in Title 24 is a key component of the State’s overall greenhouse gas (“GHG”) reduction plan, and is critical to meeting both the medium and long term goals of California in addressing climate change. The reliance on natural gas technologies in building systems where viable alternatives exist represents movement away from State GHG reduction goals. It is imperative for the CEC to consider future changes to Part 6 include net reductions in GHG emissions equally with reductions in energy use. The Energy Commission should consider developing an alternative fuel baseline scenario to facilitate the move away from a natural gas-based infrastructure.

² California Energy Commission, “California Existing Buildings Energy Efficiency Action Plan,” 2015.

C. Moving towards Zero Net Energy (“ZNE”)

Although this is the last major opportunity to design code updates that precede the 2020 Residential New Construction ZNE milestone in the *Long-Term Energy Efficiency Strategic Plan*, a recent study performed by TRC for the California Public Utilities Commission stressed that the current program performance trajectory is far from meeting the ZNE goals. “Despite this vibrant activity among the emerging ZNE-type market, the study also found various indicators that the market is not currently poised to achieve a ZNE homes 2020 aspirational goal, including a lack of consumer demand, a lack of qualified building professionals, early adopters’ misperceptions about the ZNE concept, questions regarding the cost effectiveness of ZNE-type homes, and various barriers (real and perceived) to adoption of ZNE-type homes.³” As the code gap widens, so will incremental cost between older building stock and the code baseline. This disconnect points to an increased need for code and pre-rulemaking analysis that addresses new construction separately from building retrofits, as well as complementary efforts from entities such as utilities, regional energy networks, Community Choice Aggregators, and local governments that provide adequate market interventions to reach these big, bold ZNE goals.

D. JA5

JA5 is very clear. As ZNE fast approaches, positive net energy buildings and relevant code sections such as JA5 will be increasingly important. When building devices, equipment, and end-use loads interact with on-site generation, e.g. building nano-grids, and when these buildings interact with the local micro-grid, the establishment of industry standard communication protocols, as seen in JA5.3.1 and hardware specifications in JA5.3.2, are critical.

³ TRC, “Residential ZNE Market Characterization Final Report,” CALMAC Study ID PGE0351.01, February 27, 2015. See <http://www.energydataweb.com/cpucFiles/pdaDocs/1242/TRC%20Res%20ZNE%20MC%20Final%20Report%20for%20CALMAC.pdf>

We have learned from the information technology (“IT”) industry that the IT standards have largely been adopted by the industry on a voluntary basis to facilitate efficient creation and exchange of products and services in the markets, as opposed to the mandatory standards approach currently employed by the energy efficiency industry. Voluntary standards are a topic for further discussion, which the Commission may want to consider with an engaged group of stakeholders, including local governments.

E. Exception 2 to Section 141.0(a) & Local Government Impact

This exception is a positive move towards using existing conditions, which are a realistic baseline for cost effectiveness, as well as for measuring actual grid impact in permitted work. There is a need for new forms and data to be collected with respect to existing conditions for the purposes of compliance. This is a very new concept for code, and will pose added compliance and enforcement activities.

The Commission should work closely with local governments on innovative policies to leverage and expand the collection of existing conditions. Namely, the Commission should collaborate on the obvious overlap between state and local benchmarking, transparency, and performance ordinances and potential triggers for these events (and vice versa). As statewide performance benchmarking and disclosure are being update under AB758, and as local governments develop ordinances in line with these efforts, there is great opportunity to create customer-friendly processes for benchmarking, disclosure and code compliance. There is also overlap between CALGreen Energy Design Rating metrics and tools that support these efforts. As the CEC and local governments establish minimum specifications for Energy Asset Rating tools, there should be mindfulness about compatibility with code compliance tools. This compatibility should help simplify processes that move end users from policy triggers such as benchmarking and ratings to permitting and code compliance.

Lastly, a statewide standardization and open source initiative for permitting software would provide the needed resources for compliance efforts. This has been done for California Building Energy Code Compliance. Code development, as well as the compliance software, is fully supported by many stakeholders. Where the rubber meets the road is at the local jurisdiction and in the field – and this process is self-supported. If the Commission and state agencies wish to characterize the market, and better measure permitting and compliance rates, the local instances of permitting software must receive support and attention from the Commission, while maintaining the authority of the local jurisdiction to enforce the code as it sees fit.

III. Conclusion

The LGSEC supports the proposed changes to Title 24 Parts 1 and 6. The efforts in moving code to ZNE goals, while balancing “ease of use” is critical. We look forward to collaborating with the Commission and parties on issues that directly affect local governments such as the data registry(s), data exchange efficiencies, and on-the-ground implementation. There are areas that the Commission, local governments, utilities, and stakeholders can collaborate on together such as development of tools and resources to streamline the overall code process, thinking ahead about code and grid compatibility, as well as code and policy development that is referenced throughout AB 758. We look forward to the final version of the 2016 language, as well as upcoming pre-rulemaking for the following code cycle.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Jody S. London". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

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