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2025 Energy Standards Comment

Additional submitted attachment is included below.

Evan Mulholland
University of San Diego
Knauss School of Business
5998 Alcala Park Way
San Diego, CA 92110

To whom it may concern,

My name is Evan Mulholland, and I am a graduating senior at the University of San Diego, majoring in marketing and real estate. For my class Housing Economics, Issues, and Trends, I chose to delve into the topic of clean energy integration in construction. Throughout the semester, our research highlighted various avenues for implementing clean energy standards in construction projects. When executed effectively, these standards have the potential to foster environmental sustainability and contribute to the healing of our planet. Through this document, I aim to contribute new insights to the 2025 Building Energy Efficiency Standards and advocate for more energy-efficient construction practices in California.

The integration of green energy into new and existing residential buildings is critical when addressing global energy consumption and emissions. The International Energy Agency (IEA) reports that the building and operation of buildings accounts for 36% of global energy usage and generates 40% of energy-related emissions. These figures rise even further when considering emissions from the production of construction materials such as concrete and steel. While policy reforms are a powerful avenue to address these concerns, they must be realistic and well-researched prior to their implementation to be effective. Legislative efforts often focus on enforcing standards that the existing technologies cannot meet, leading to inefficient implementations and missed opportunities. For instance, the EU's 2019 directive for "nearly zero energy" public buildings illustrates standards that do not yet consider the full lifecycle emissions of buildings, including those from demolition and construction phases. Notably, many zero-carbon buildings fail to meet their energy production targets and remain inefficient. For example, Britain's Building Research Establishment, a building that was supposed to be built with zero carbon, ended up consuming 90% more energy than planned and had energy producing additions that did not meet expectations. In addition, the standards and regulations in the EU's directive were confusing and could be taken advantage of. This includes allowing items that were plugged into sockets could be excluded from the emissions measurement. So, buildings could use floor and table lamps instead of ceiling lights and see false reduced emission measurements. With standards and regulations like these, I believe it would be better to keep things as they are, and invest money into researching better ways to improve our building standards. People in 30 years will have to make similar changes to buildings if not they are not done right now, which takes away all meaning from the work we are doing now.

New Zealand was lobbied to adopt these EU-like standards, yet the standards have faced criticism for minimal impacts on overall emissions due to the exclusion of older buildings and loopholes in emissions measurement standards. Elrond Burrell, an architect in New Zealand, suggests that without comprehensive and clear guidelines, the real impact of such standards may be diluted. I bring this example to your attention only so similar issues that the EU had are not repeated in the 2025 standards or any year after. If there are terms included that truly do not benefit the end goal of helping better the environment, then there is no point in having standards at all.

Looking at the Building Energy Efficiency Standards, I am pleased to see that these standards will apply to alterations to already standing buildings, and that they do not only have to apply to newly constructed buildings. During my research, I found that existing buildings are a large part of the world's emissions and energy. Many of these buildings are homes that could have been built decades ago and contain inefficient lighting, windows, insulation, and more. One country that is trying to attack this problem is Italy. Since July 2020, the Italian government has offered homeowners the ability to claim the full cost of clean renovations and an additional 10% in tax credits up to €100,000. So far, the government has given out €21 billion in credits. However, this program has predominantly benefited wealthier homeowners, underscoring the necessity of making such incentives accessible to all income groups. For instance, low-income families often reside in less energy-efficient homes, making them disproportionately vulnerable to the costs associated with new green mandates and taxes. Perhaps the Californian government could build off of this idea by incentivizing wealthier homeowners by implementing tax credits for green upgrades that homeowners can afford on their own. On the other hand, the government could subsidize green renovations for lower income homeowners. This kind of approach would allow American citizens of all economic statuses to strive for green renovations.

The urgency of integrating green energy practices into residential buildings demands a strategic and inclusive approach. By prioritizing technological advancements, equitable incentives, and holistic regulatory frameworks, we can ensure that sustainable housing becomes a practical reality. This approach not only safeguards the environment but also enhances collective well-being. As one of the most progressive states, California has the opportunity to lead by example and inspire other states to adopt similar practices. I commend your efforts in developing the 2025 Building Energy Efficiency Standards and thank you for your commitment to promoting sustainable development.

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