

**DOCKETED**

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*Comment Received From: Taylor Engineering*  
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**Taylor Engineering Comments on the 2019 NR ACM**

*Additional submitted attachment is included below.*



March 1, 2019

California Energy Commission  
Docket Office, MS-4  
RE: Docket No. 19-BTSD-01  
1516 Ninth Street  
Sacramento, CA 95814-5512  
docket@energy.ca.gov

Subject: California Energy Commission Draft 2019 Alternative Calculation Method (ACM) and Compliance Software Tools: Commission Docket No. 19-BTSD-01

Dear Commissioners:

Taylor Engineering recognizes and appreciates the important leadership and dedication of the California Energy Commission in advancing the energy efficiency of California's built environment, preserving outdoor and indoor environmental quality, and reducing the negative impacts on the state's natural resources. We fully support the goals of the commission and we believe the 2019 code cycle will bring the state closer to those goals. We urge the commission to reconsider the requirements of the proposed 2019 Alternative Calculation Method (ACM) for those goals.

The 2019 ACM provides an alternative approach to the code prescriptive requirements through a computer simulation analysis that compares the proposed building design to a hypothetical baseline building design. The 2019 ACM updates the hypothetical building HVAC systems table to match the industry standard's ASHRAE 90.1-2016 table but with California specific requirements. The ASHRAE 90.1-2016 compliance method uses an energy cost budget to determine compliance; however, we believe these new building types are flawed when applied with California's time dependent valuation (TDV) energy factors and do not reflect nor encourage the state's stakeholders desire to move to a carbon-free built environment. This is because each baseline building type uses natural gas for heating, even if the proposed building does not plan to connect natural gas utilities. This unfairly penalizes a proposed all-electric building as the 2019 TDV factors do not factor in the costs of carbon emissions (both environmental and possible future economic costs). Therefore, the performance analysis cannot accurately analyze a proposed all-electric building for compliance with the building energy standards and the goals of the commission.



We respectfully urge the commission to consider including alternative fuel-neutral pathways for all-electric buildings to meet code compliance through the performance method. The ASHRAE 90.1-2010 system type table provides such a path.

Sincerely,  
Taylor Engineering