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CALIFORNIA ENERGY COMMISSION
Attention: Docket No. 07-BSTD-1
Dockets Office
1516 Ninth Street, MS-4
Sacramento, CA 95814

Attention: CALIFORNIA ENERGY COMMISSION

Subject: 2008 Building Energy Efficiency Standards 45-Day Language - Review Comments

As a lifelong California resident and Licensed Professional Mechanical Engineer with almost thirty years of experience in air conditioning contracting, I feel an obligation to comment on the 2008 Building Energy Efficiency Standards 45-Day Language. I have personally been involved in the design and installation of various types of air conditioning systems, from small residences to high-rise office buildings. My responsibilities have included implementing the Title 24 Energy Requirements into the both the Envelope and Mechanical Design of the projects in which I have been involved. Working for a design-build mechanical contractor, who also does plan and spec work, has not only allowed me the experience of designing and overseeing the installation of cost effective air conditioning systems, it has also allowed me to observe the designs of many consulting mechanical engineering firms as well as architectural firms. I have personally performed the Title 24 Energy Analysis for both residential and non-residential projects as defined in the Energy Code.

I would like to bring to light what I think are two important issues regarding Title 24 attempts at regulating behavior. (In this case, the behavior would be the use of energy.) Two provisions of Title 24 in particular will not be enforced as written and will further promote disrespect of the law.

Government cannot be effective in regulating behavior, if it does not also provide the necessary means to implement the regulations. For example, in the 2005 Title 24 Energy Code, Acceptance Testing for mechanical system components was written into the Code as part of that update. The implementation of Acceptance Testing as part of Title 24 regulations has been a total failure, on many levels. Consulting engineers have failed to fill out the MECH 1 Forms properly. This may be due to the fact that the Energy Pro Computer Program that is used to perform the Energy Analysis does not automatically fill out the required Acceptance Testing Requirements for the project and that the MECH 1 Form requires manual input of the Acceptance Testing Requirements. The Building Department Plan Checkers have failed to check if the Acceptance Testing Requirements are filled out properly and have approved and permitted projects without the Acceptance Testing Requirements filled out properly. Contractors do not know what

Acceptance Testing Requirements to apply to their project, if the MECH 1 Acceptance Testing Requirements have not been properly filled out. And even if they do know what forms to fill out, they fail to do so because the inspectors do not ask for them. Building Inspectors have failed to request the appropriate Acceptance Testing Forms upon final inspection of the project. As of this date the firm with which I am employed has yet to be asked for the Acceptance Testing Forms upon final inspection of a completed project. And yes, I have filled out the MECH1 Form properly as to which Acceptance Testing Forms are required and the inspectors still have not asked for them upon final inspection. Lawmakers are irresponsible to write into law regulations that they will not provide the means to successfully implement. To place the burden of implementing the regulations on citizens (contractors), without proper governmental guidance and oversight, creates an uneven playing field, in which the citizen who ignores the regulation that is not being properly enforced has an advantage over the citizen who tries to follow the regulation. Having citizens follow a regulation that is not fully enforced is counter productive to the initial goal the lawmakers set out to accomplish. It actually forces honest citizens into not being honest in order to compete in the market place.

The second concept is "It is easier to modify behavior if the perceived benefit is great enough to modify the behavior." The 2008 Title 24 Energy Code introduces the Programmable Communicating Thermostat (PCT) to the citizens of California. The perceived benefit will not outweigh the loss of comfort and even worse it would take the choice of temperature comfort out of the hands of the individual. Rather than regulating PCT's into specified residences and taking the choice away from some of the residences, why not regulate energy at the electric meter and gas meter of all residences existing and new and limit power demands and energy consumption on a residence by residence basis? This would put the choice back in the hands of the consumer allow them to choose how they use their energy allotments. It would lead to existing residences being modified and new residences designed to be more energy efficient. It would be more equitable in that the all residences would participate in the energy savings program.

Human behavior will not be changed solely by regulation, particularly when the regulations will not be enforced. The California Energy Commission should review the Title 24 Energy Code and determine ways to better implement the regulations through training and education of both public officials and private businesses involved in the California Construction Industry. The California Energy Commission should review the enforcement process as it is now implemented and determine what improvements and modifications are needed at the various building and safety departments throughout the state to deliver an acceptable and fair level compliance. This may require rethinking the way in which compliance is achieved, such as a central State Title 24 Compliance Department. The California Energy Commission should review the monitoring of power demand and energy consumption at the utility level in lieu of restricting comfort levels in specified residences.

Sincerely,

A handwritten signature in black ink that reads "Michael S. Taylor". The signature is fluid and cursive, with a large loop at the end of the word "Taylor".

Michael S. Taylor P.E.

8132 Elden Avenue
Whittier, CA 90605

Cc: CAL SMACNA ENERGY TASK FORCE Members
Governor Arnold Schwarzenegger