RECA
Responsible Energy Codes Alliance

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May 30, 2012

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 12-BSTD-1
Adoption of 15-Day Language for the 2013 Energy Efficiency Building Standards
1516 Ninth Street
Sacramento, CA 95814-5512

RE: RECA Comments Supporting the 2013 Building Energy Efficiency Standards Rulemaking

Dear Commissioners,

I am writing on behalf of the Responsible Energy Codes Alliance (RECA) to support the 2013 Rulemaking to implement improved Building Energy Efficiency Standards in California. I also want to offer our perspective on and support for the proposed adoption of certain code requirements that equal or exceed the 2012 *International Energy Conservation Code* (*IECC*).

RECA is a broad coalition of energy efficiency professionals, regional organizations, product and equipment manufacturers, trade associations, and environmental organizations. A list of our members is enclosed at the end of this letter. For two decades, our coalition has been involved in the development and adoption of state and local energy codes in jurisdictions across the country and in the development of the national model energy code (the *IECC*).

RECA promotes the adoption and implementation of improved building energy codes and, in particular, the 2012 *IECC* nationwide. The U.S. Department of Energy recently confirmed the 2012 *IECC* as the new baseline for state residential energy codes and has started the two-year period under federal law wherein states will review and potentially adopt codes that meet or exceed the 2012 *IECC*.[1]

We recognize that California is statutorily required to develop its own state building energy efficiency standards and does not adopt the model code like most states. We also recognize that in many cases, California is on the cutting edge of state energy code development with provisions that surpass those in the model code and we appreciate the leadership of the state in this regard. However, consistent with RECA's mission in support of the 2012 *IECC*, we want to acknowledge and support California's inclusion of requirements in its code that are equivalent to, or more stringent than the current (2012 version) of the *IECC*. We believe these improvements will yield benefits to California for many years in both energy savings and in reduced peak electric demand. The improvements represent another important step toward a more secure energy future for the state.

[1] *See* 77 Fed. Reg. 29322 (May 17, 2012)

We understand that this is a particularly important time to consider improvements in the energy code in California. The state currently faces substantial hurdles to meeting ever-increasing electrical peak demands and maintaining a reliable electric system. Just last year, San Diego experienced a significant blackout due to grid coordination and reliability. News reports are projecting that more blackouts are feared for this summer, particularly because of the uncertainty surrounding the San Onofre Nuclear Generation Station remaining offline.[2] Curbing the growth of electric peak demand is obviously a high priority. Building energy codes are widely recognized as an important policy tool in the effort to manage growing energy needs and peak demands. We believe that timely adoption of the 2013 Rulemaking will effectively and significantly contribute to state efforts to meet this urgent and long-term issue.

Much like Title 24, the 2012 *IECC* is the product of a well-developed, long-standing, rigorous code development process. The 2012 *IECC* code development process involved the nation's leading experts in energy efficiency, building design and product performance, state and local governmental officials, product manufacturers, architects and builders. RECA urges California to incorporate provisions from the 2012 *IECC* in its building energy efficiency standards to the greatest extent possible. We hope that in cases where important requirements of the 2012 *IECC* cannot be adopted in this 2013 Rulemaking, that they be revisited and adopted in the next Standards update.

While we have not tried to assess every improvement or modification in the proposed new code, in general, RECA supports the 2013 Rulemaking as a major improvement over the current California energy standards. We have highlighted below a few of the improvements in the 2013 Rulemaking, particularly as to the thermal envelope, and how they compare to the 2012 *IECC*. This is not intended to be a comprehensive list, but will serve to illustrate some of the improvements we view as particularly important.

A Better Thermal Envelope is Crucial to Energy Efficiency

Many elements of the thermal building envelope have been improved in the prescriptive compliance options of the 2013 Rulemaking, making buildings more comfortable in all seasons, saving energy and, in particular, electric peak demand, and providing more energy security for California:

- **Better Window Solar Heat Gain Coefficients (SHGC).** Once implemented, the 2013 Rulemaking will lower the maximum prescriptive SHGC requirement for windows across much of California to 0.25 or less for residential and 0.22 to 0.26 or less (depending upon the product type) for non-residential. RECA fully supports these proposed maximum SHGC values, which are generally consistent with the requirements of the 2012 *IECC* for these climates. The 2013 Rulemaking, and particularly the peak demand reductions associated with lower maximum SHGC requirements (for both residential and nonresidential), will help California implement the numerous state energy

[2] *See* http://online.wsj.com/article/SB10001424052702303863404577283743306531650.html?KEYWORDS=California+blackout

policy directives it set out to achieve when updating the 2008 Standards (for example, the 2003 Energy Action Plan, 2009 Integrated Energy Policy Report, the Governor's Executive Order and 2006 Statute to reduce greenhouse gases, the Clean Energy Futures Initiative and the 2010 Clean Energy Jobs Plan). Reducing peak electric demand for each building will reduce the corresponding peak loads on the electrical grid. The lower overall energy use and lower peak electricity use will translate to lower energy costs for residents and businesses of the state. And, because utilities often turn to less-efficient, higher-polluting generating resources during periods of peak demand, the reduction in demand can reduce air pollutant emissions during those periods. Indeed, no other resource could achieve so many of the purposes expressed in the energy policy directives at such a low cost.

- **Stronger opaque insulation requirements**. The 2013 Rulemaking requires better-insulated roofs/ceilings, walls, floors and ducts. These measures are most cost-effective at initial construction and will yield energy savings for the useful lifetime of the home. While the values in the 2013 Rulemaking are a significant improvement over the 2008 Standards, and RECA supports these improvements, we believe that even with the proposed upgrades, not all of California's insulation requirements are at least as stringent as the 2012 *IECC*. To the degree that the proposed values are not equal to the 2012 *IECC*, RECA recommends that the Commission either update the values prior to finalizing the Rule or commit to reach the *IECC* levels in the next Standards update.

- **Lower window U-factors.** The 2013 Rulemaking also lowers window U-factors, which will provide better insulation and energy savings year-round. RECA fully supports the window performance values in the 2013 Rulemaking because they are a substantial improvement over existing requirements and are generally equivalent to, or exceed, the 2012 *IECC*. The 2013 Rulemaking also includes, as a mandatory backstop, a maximum trade-off limit of 0.58 U-factor for all low-rise residential windows, regardless of compliance method (prescriptive or performance). This will have the positive effect of eliminating the use of inefficient single-pane windows in new construction. While RECA supports this improvement, we point out that California's 0.58 mandatory maximum U-factor is considerably weaker than the 2012 *IECC* (which would require a 0.48 U-factor limitation in colder climates), and the 2013 Rulemaking fails to include a mandatory maximum SHGC in warmer climates, which the *IECC* does include (at a maximum of 0.50 SHGC). Similar to the above comment regarding insulation values, in the event the Commission declines to revise and improve the fenestration maximum performance values at this time, RECA recommends that the Commission Staff revisit the fenestration mandatory maximum performance values in the next Standards update with the goal of meeting or exceeding the established *IECC* limits.

- **Minimum visible light transmittance (VT).** RECA supports the proposal to include in the 2013 Rulemaking a prescriptive minimum Visible Transmittance

requirement for nonresidential fenestration. The minimum VT requirement will ensure an adequate amount of daylighting is utilized in buildings, thereby creating a potential to reduce lighting load in a nonresidential setting. RECA views the prescriptive VT minimums as exceeding the performance required in the 2012 *IECC*. When combined with the new, lower SHGC requirements, occupants will realize the best of both worlds with reduced heat gain (for cooling energy and peak savings and comfort) without having to sacrifice visible light. Implementing measures like California has proposed through its minimum VT requirement for windows is the simplest and most effective way to ensure visible light is made available in structures. Adequate visible light through fenestration is recognized by national experts as important for lighting energy savings and improved productivity proven to occur in naturally lit environments.

- **Less duct leakage in HVAC distribution systems.** The 2013 Rulemaking requires that all space conditioning ducts in residential buildings must now be sealed and tested to minimize duct leakage. The duct sealing and testing improvements will result in more efficient delivery of heated or cooled air.

Conclusion

California, like many states, is facing unprecedented pressures on its electrical grid and its ability to economically produce enough electricity to meet growing demands. No energy policy tool can achieve reductions in energy use and peak demand, reduce pollution, and provide more grid stability over time than effective energy codes. The 2013 Rulemaking should be adopted and implemented as quickly as feasible. We hope that you will not hesitate to draw on RECA's support and willingness to help. Please contact me at (202) 339-6366 if you have any questions or would like to discuss how RECA can be of assistance.

Sincerely,

Eric Lacey
RECA Chairman

RECA is a broad coalition of energy efficiency professionals, regional organizations, product and equipment manufacturers, trade associations, and environmental organizations with expertise in the adoption, implementation and enforcement of building energy codes nationwide. RECA is dedicated to improving the energy efficiency of homes in California and throughout the U.S. through greater use of energy efficient practices and building products. It is administered by the Alliance to Save Energy, a non-profit coalition of business, government, environmental and consumer leaders that supports energy efficiency as a cost-effective energy resource under existing market conditions and advocates energy-efficiency policies that minimize costs to society and individual consumers. Below is a list of RECA Members that endorse these comments.

Air Barrier Association of America

Alliance to Save Energy

American Chemistry Council

American Council for an Energy-Efficient Economy

Cardinal Glass Industries, Inc.

CertainTeed Corporation

EPS Molders Association

Extruded Polystyrene Foam Association

Guardian Industries Corporation

Institute for Market Transformation

Johns Manville Corporation

Knauf Insulation

National Fenestration Rating Council

North American Insulation Manufacturers Association

Owens Corning

Pactiv Corporation

Polyisocyanurate Insulation Manufacturers Association

Sierra Club