



September 6, 2013

Commissioner Andrew McAllister
Commissioner Karen Douglas
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

California Energy Commission

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Re: September 11th Business Meeting Agenda Items #3 and #4; and the Effective Date of the 2013 Building Energy Efficiency Standards

Dear Commissioners McAllister and Douglas:

Despite the enormous and dedicated efforts by Staff and Contractors to make important and necessary changes embedded in the 2013 compliance software, the public domain Residential and Nonresidential compliance software is still unfortunately not ready yet for full use with the 2013 Standards and should not be approved at the September 11th Business Meeting. The Commission needs to defer approval of the public domain compliance software until it is truly and verifiably functioning at the level necessary to properly implement the 2013 Building Energy Efficiency Standards.

2013 Residential Compliance Software

While significant progress is being made in the CBECC-Res 2013 program and the underlying Compliance Software Manager that private ACM software will access, there are still important unresolved problems and limited capabilities in the software and related manuals:

- The software is not yet producing a fully functioning, fully populated and properly-tested set of compliance forms (CF-1R, Certificate of Compliance) which is at the core of all residential energy code permit documentation.
- Many fundamental HVAC systems described in the ACM Manual as minimum capabilities are not yet implemented.
- Software capabilities do not yet include Existing + Addition + Alteration calculations (important since additions and alterations comprise roughly 80% to 90% of all residential permit submittals.)
- Certification tests in the Residential ACM Manual are still undefined in some cases, and no certification test runs have yet been provided. (Even if these items are resolved quickly, there is insufficient time to review results prior to the approval meeting).
- The CBECC-Res 2013 User's Manual does not meet all the ACM Manual criteria.

To be fair: if a private ACM vendor were to submit compliance software to the Commission for approval at the current level of development of CBECC-Res 2013, the software would not make it onto the meeting Agenda.

2013 Nonresidential Compliance Software

The situation with the nonresidential software is more problematic for several reasons. First, Staff has acknowledged that the nonresidential public domain program that meets all the minimum requirements of the 2013 ACM Manual will not be ready before January. Specifically:

- The software is not yet producing a fully functioning, fully populated and properly-tested Certificate of Compliance.
- Software capabilities do not meet minimum ACM criteria (as examples, daylighting and Area Category footnote exceptions.)
- Software User's Manual does not meet all ACM Manual criteria.
- The certification test runs initially released had errors, and are now being revised. Even if provided now, there is insufficient time to review before the approval meeting.

To re-iterate: any private ACM vendor submitting compliance software to the Commission at the current level of development of CBECC-Nonres 2013 would have their software promptly and appropriately rejected.

General Implications of the Current Situation

Building owners, architects, engineers and energy analysts need fully functioning and reliable compliance software right now to analyze many types of building projects that will not be submitted for permit before January. However, the necessary compliance software, residential and nonresidential, is not available. This is a very serious problem, not just for the above stakeholders, but for the Energy Commission and the implementation and industry acceptance of the new Standards. This is especially true since the new code represents a considerable jump in stringency as we move toward ZNE goals; and because there are many new requirements, new triggers, new rules and new forms to learn.

Agencies with "reach" ("stretch") goals defined in local ordinances, CALGreen and others that reference the Title 24 Part 6 Standards must have time and tools to evaluate the changes to the energy code and the impacts to their design requirements well in advance of the new code effective date. They cannot do this evaluation without performance based calculation tools. A few examples of these agencies are the City of San Francisco, the City of Chula Vista, the University of California, the California State University System, Build-It-Green and a host of others. All of the new construction rebate programs for the statewide IOU Savings By Design Program, local municipal utility rebate programs and California Solar Initiative rebate programs all require performance based benchmarks.

With respect to the Residential Standards: the good news is that private ACM vendors are reporting able to connect to the 2013 Residential Compliance Software Manager through CBECC-Res 2013 and the building data file format. But there are still many compliance software capabilities and features that are incomplete or missing which are crucial to the successful implementation of the Residential performance approach. More time is definitely necessary, and perhaps a new focus to complete the mission.

For the Nonresidential Standards, the public domain program will not be ready for many months. As we've discussed with Staff, CEC consultants and a private domain ACM vendor, all need to work collaboratively toward availability of private domain ACM compliance software to provide the necessary performance tool. It is worth noting that Section 10-103(a)1 references the completion of a Design Review Kickoff Certificate of Compliance. This is the document that requires analysis and review of the energy design of a nonresidential building in the planning and design stages – typically six months or more before permit submittal. We are now only three-and-a-half months from January 1st, and the compliance software needed to perform the design review analysis is not available. So it will be impossible for any nonresidential project to meet this requirement if it is permitted toward the beginning of a new energy code cycle starting in January.

Where We Go from Here

It is apparent that fully functioning compliance software -- for both the Residential and Nonresidential Standards -- will not be ready for approval before January. If compliance software programs have not been submitted to the Commission by November 1st, CEC Staff will not have adequate time to properly review and recommend approval before the December 11th Business Meeting. Therefore, **we respectfully urge the Commission to delay the effective date of the 2013 Standards to July 1, 2014.**

Even with an extra six months, finishing development and testing of residential and nonresidential compliance software to meet all Standards implementation requirements is not be a trivial task. As explained in my May 24th letter, I fully support the overall goals and architecture of the compliance software manager approach to energy performance standards. However, developing this new platform and meeting all critical implementation requirements and needs is a herculean task which requires additional time.

We understand the considerable pressure on the Commission to have the 2013 Standards take effect concurrently with the other building codes in January. However, **not delaying the Standards under current circumstances will do much greater harm to the Commission and to the new Standards; and will seriously undermine ongoing efforts to move California toward its ZNE goals.**

Yours truly,



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