

CALBO Comments – 2013 Energy Efficiency Standards

California Building Officials (CALBO) is the statewide association of local California Building Departments. Our members inspect and approve the construction safety standards (including energy efficiency standards) of 95% off all buildings in California as representatives of local government. The comments below were developed and approved by the CALBO Energy Commission Advisory Committee. Questions should be directed to the Committee Chair, Tom Garcia, tgarciaiii@gmail.com

The Energy Standards Inspection Process.

Building department personnel are well trained in and understand all aspects of building construction. They are an important part of the energy savings equation. Building department personnel do a good job of building plan review and inspection within given time constraints. Standards continue to become more complex yet building departments have limited time to review and inspect the energy standards provisions. Therefore it is important for the standards to be implemented in the most simple and direct manor.

During these tight economic times it is not realistic to impose the enforcement of unreasonably complex energy standards on local building departments. Special inspection can be considered but special inspection can add time and cost to the process and still does not guarantee compliance.

The best solution is to develop prescriptive standards that can be applied to the most common building projects, provide clear concise and short forms, and provide training well ahead of the implementation date of the standards.

CALBO Concerns and Suggestions:

- Building inspectors do not have time to verify the listing of all products such as occupant sensors. The CEC must take responsibility for insuring that only listed products are on the California market.
- Title 24, Part 6 should have an index similar to all other adopted codes.
- Prescriptive compliance should be simple and straightforward. If we need complex tables or formulas to comply with the energy standards using the prescriptive approach then we should just require the performance approach.
- Alterations should have a simple prescriptive path to compliance and new construction should be directed to the performance method.
- To help improve the accuracy of plan residential plan review, all windows should be listed separately in the performance method inputs.
- The Acceptance forms are ineffective in many situations. Acceptance forms are not a totally failed policy but they are not matched well to field practice for local jurisdictions. 90% of all permits in small jurisdictions are

- alterations of unitary equipment. The solution to Acceptance forms for Alterations is to have prescriptive details that can be easily inspected. If a project complies with the prescriptive requirements then Acceptance forms should not be required. New building can still use Acceptance forms.
- For roof and wall insulation weighted averages are more difficult to review and verify in the field. Can the weighted average be translated into a mandatory batt or rigid insulation u-value?

Additional Options to Improve Compliance.

- Require energy standards certification for local jurisdiction plan review and inspection staff. This certification could be similar to the Certified Access Specialist program administered by the Division of the State Architect. You could require at least one certified individual by January 2014 and additional certified staff by 2016.
- Require energy standards certification for outside plan check firms with the same provisions as required for local jurisdictions.
- Consider legislation to implement a housing resale program to bring up energy efficiency on the existing housing stock. For example; an HVAC and Furnace system greater than 15 years of age must be replaced with equipment that meets current requirements.

Section Specific Comments.

1. Section 10-103(a)1C should be written to read as follows: "For alterations to existing residential buildings for which HERS field verification is not required such as water heater and window replacements, and for additions to existing residential buildings that are less than 300 square feet for which HERS field verification is not required, the enforcement agencies may at their discretion not require any forms or develop simplified Certificate of Compliance documentation for demonstrating compliance with the Standards.
Note: Exemptions from submitting compliance documentation shall not be deemed to grant authorization for any work to be done in any manner in violation of this code or other provisions of law. "
The language should be placed directly after the first paragraph of Section 10-103(a)1 so that the exception is clear and not buried within items A through E.
2. Section 10-103(a)3C regarding installation certificates should be written to read similar to comment 1 above.
3. Sections 10-103(a)1D and 10-103(a)3D should provide exceptions for small projects. It may not be necessary for every piece of paperwork go into the registry.

4. Section 110.7 regarding Air Barriers is a major upgrade to building construction and will require additional education for building trades and inspectors. Caulking and sealing of sheetrock or plywood may prove to be difficult to inspect.
5. Section 110.10: The 70% threshold and other provisions of this section will be hard to enforce since subdivisions are built over many years. Tracking the exact percentage of homes will be difficult to track over time. With clear training developers and building departments will do their best to achieve compliance but this most likely will present ongoing inspection issues.
6. Section 110.2(c) includes a large list of requirements for the upgradable setback thermostat (UST). It will be necessary for the CEC to maintain an easily accessible list of approved UST devices.
7. Section 120.6(d) Commercial and Process Boilers: In many jurisdictions boiler requirement represents less than 0.1% of permits. Many jurisdictions will not remember to enforce the boiler provisions. (One good reason to have an index for Title 24, Part 6.)
8. Table 130.1-A is not immediately enforceable in the field for alterations. It is too confusing for the inspection staff.
9. Section 130.1(d) Automatic Daylighting Controls: Is it possible to further simplify this section.
10. Section 130.2(b) Cutoff requirements seem complex for plan review and field inspection. The standards should drop Cutoff requirements. It is also suggested that the BUG Tables use layman language. There should be a one page Acceptance form for BUG Outdoor lighting.
11. Section 130.5 seems like a lot of work and expense for a system that may be considered a nuisance and may not be used effectively by the building occupants. This section probably belongs in Title 24, Part 11, Tier one.
12. Section 141(b)1i through 141(b)1 ii and tables 141-C & D: CALBO suggests that this section apply to retrofits only. Tenant improvements, and other alterations that include multiple trades, should be governed by less complex prescriptive provisions.
13. Section 150.0(n)1B & C: Is this section intended to limit the water heater location in order to provide the ability to upgrade to an instantaneous water heater? Do we really want to install an extra condensate drain that may never be used?