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From: Mark Meyers <kd6kyy@email.com>
Sent: Thursday, September 24, 2015 10:13 PM
To: Energy - Docket Optical System
Subject: HERS Raters obtaining Permits for contractors
Attachments: Combind docs.pdf; HERS conflict of interest.docx

California Energy Commission DOCKETED 12-HERS-01
TN # 76211 SEP 25 2015

Dear Sirs,

The CALBO advisory committee to the California Energy Commission has been trying to get a response from the CEC as to why HERS raters are being allowed to violate the conflict of interest requirements in the energy code and the building code and no one seems interested in stopping this activity. Is it possible to have this added to the docket for discussion and possibly a final ruling and or resolution to this issue? I have included a copy of a recent letter sent to your representative on this issue. Thank you. Mark.

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RA2.1 California Home Energy Rating Systems

Compliance for certain energy efficiency measures, as specified by the Commission, requires field verification and diagnostic testing of dwelling units by a certified Home Energy Rating System (HERS) Rater. The Commission approves HERS Providers, subject to the Commission's HERS regulations, which appear in the **California Code of Regulations, Title 20, Division 2, Chapter 4, Article 8, Sections 1670-1675**. Approved HERS Providers are authorized to certify HERS Raters and are required to maintain quality control over HERS Rater field verification and diagnostic testing activities.

When the Certificate of Compliance documentation for a dwelling unit indicates that field verification and diagnostic testing of specific energy efficiency measures are required as a condition for complying with Title 24, Part 6, an approved HERS Provider and certified HERS Rater shall be used to conduct the field verification and diagnostic testing according to the applicable procedures in Appendix RA2. HERS Raters shall be considered special inspectors by enforcement agencies and shall demonstrate competence, to the satisfaction of the building official, for the visual inspections and diagnostic testing that they perform. Per California Code of Regulations, Title 20, Division 2, Chapter 4, Article 8, Section 1673(j)(2), "Providers and Raters shall be independent entities from the builder and from the subcontractor installer of energy efficiency improvements field verified or diagnostically tested." An **"Independent Entity means having no financial interest in, and not advocating or recommending the use of any product or service as a means of gaining increased business with, firms or persons specified in California Code of Regulations Title 20, Division 2, Chapter 4, Article 8, Sections 1671 and 1673(j)."** Third Party Quality Control Programs approved by the Commission may serve some of the functions of HERS Raters for field verification purposes as specified in Section RA2.7.

The remainder of this Appendix RA2 describes the:

- (a) Measures that require field verification or diagnostic testing;
- (b) Requirements for documentation and communication for HERS verification compliance processes;
- (c) Responsibilities assigned to each of the parties involved in the field verification and diagnostic testing process;
- (d) Requirements for procedures for installing contractors and Certificate of Installation documentation;
- (e) Requirements for HERS Rater field verification and diagnostic testing and documentation procedures;
- (f) Requirements for sampling procedures for HERS verification compliance;
- (g) Requirements for Third Party Quality Control Programs;
- (h) Requirements for HERS verification compliance for alterations to existing dwellings.

RA2.2 Measures that Require Field Verification and Diagnostic Testing

Table RA2-1 describes the measures that require installer certification and HERS Rater field verification and diagnostic testing, and identifies the protocol or test procedure in the Reference Residential Appendices that shall be used for completing installer and HERS Rater field verification and diagnostic testing.

process is completed but a California Whole-House Home Energy Rating score is not designated. When describing that case, these regulations refer to that portion of the rating process as a California Home Energy Audit.

Note: Authority cited: Sections 25213 and 25942, Public Resources Code. Reference: Section 25942, Public Resources Code.

§ 1671. Definitions.

For the purposes of these regulations, the following definitions shall apply:

ACM Manual means the Low-Rise Residential Alternative Calculation Method Approval Manual (Energy Commission Publication CEC-400-2008-002) adopted in Section 10-109(b)(2) of Title 24, Part 1 of the California Code of Regulations.

Building Performance Contractor means a contractor who is certified by a Provider to evaluate the comfort and safety aspects of a home in conjunction with its energy features and its energy consumption in a holistic manner to determine recommendations for the best overall performance of a home for the occupant or owner, and is licensed by the California Contractors State License Board as a current and active class B general building contractor. Either the qualifying individual for the class B license or the employee who is directly responsible to the qualifying individual for the class B license for rating services, audit services, and related construction work is certified as a California Whole-House Home Energy Rater by an Energy Commission-approved Building Performance Contractor program as specified in Section 1674(e).

California Field Verification and Diagnostic Testing Rater means a Rater who has been trained, tested, and certified by a Provider to perform field verification and diagnostic testing of newly constructed homes or alterations to existing homes to verify compliance with the requirements of Title 24, Part 6.

California Home Energy Analyst means a person who works under the direct supervision of a California Whole-House Home Energy Rater and has been trained, tested, and certified by a Provider in accordance with the requirements of Section 1673(a) to perform analysis for a Whole-House Home Energy Rating using an Energy Commission-approved HERS rating software program.

California Home Energy Audit means a process to determine the energy savings and cost-effectiveness of specific measures together with an evaluation of the energy uses listed in Section 1672(d) and a report to present the information used to evaluate the measures and make recommendations for the inclusion of such measures into the home. An audit need not include a Whole-House Home Energy Rating score.

California Home Energy Auditor means a person who has been trained, tested, and certified by a Provider as a California Whole-House Home Energy Rater to provide the information for a California Home Energy Audit.

California Home Energy Inspector means a home inspector who has also been trained, tested, and certified by a Provider and who works under the direct supervision of a California Whole-House Home Energy Rater to gather the data specified in the HERS Technical Manual to enable the development of a California Whole-House Home Energy Rating.

California Whole-House Home Energy Rater means a person who has been trained, tested, and certified by a Provider to properly gather information on the energy consuming features of a home, perform diagnostic testing at the home, evaluate the validity of that information, simulate and perform analysis for a California Whole-House Home Energy Rating or a California Home Energy Audit using an Energy Commission-approved HERS rating software program to estimate the energy consumption of a home using the information gathered on site, and complete all of the cost-effectiveness evaluations described in the HERS Technical Manual.

California Whole-House Home Energy Rating means a process to determine a California Whole-House Home Energy Rating score representing the relative energy efficiency of a newly constructed or existing residential building as compared to the Reference Home.

Certified, as to a Provider and Rating System, means having successfully completed the certification requirements as specified by Section 1674.

Energy Commission means the State of California Energy Resources Conservation and Development Commission, commonly known as the California Energy Commission.

Energy-Rated Home means a newly constructed or existing residential building that has an energy rating pursuant to these regulations.

Executive Director means the Executive Director of the Energy Commission.

Financial Interest means an ownership interest, debt agreement, or employer/employee relationship. Financial interest does not include ownership of less than five percent of the outstanding equity securities of a publicly traded corporation.

HERS Technical Manual or HTM means the HERS Technical Manual, Energy Commission Publication CEC-400-2008-012 (May 2009), and is incorporated by reference.

Independent Entity means having no financial interest in, and not advocating or recommending the use of any product or service as a means of gaining increased business with, firms or persons specified in Section 1673(j).

Note: The definitions of "independent entity" and "financial interest," together with Section 1673(j), prohibit conflicts of interest between Providers and Raters, or between Providers/Raters and builders/subcontractors.

Net Zero Energy Home means a home that has a net annual Time Dependent Valued (TDV) Energy consumption of zero, accounting for both energy consumption and the use of on-site renewable energy production.

Provider means an organization that administers a home energy rating system in compliance with these regulations (referred to as a "home energy rating service organization" in Section 25942 of the Public Resources Code).

Rater means a person who has been trained, tested, and certified by a Provider to perform one or more of the functions or procedures used to develop a California Whole-House Home Energy Rating, a California Home Energy Audit, or the field verification and diagnostic testing required for demonstrating compliance with the Title 24, Part 6, Building Energy

Efficiency Standards, and who is listed on a Provider's registry in compliance with Section 1673(d).

Rating means a California Whole-House Home Energy Rating, a California Home Energy Audit, or the field verification and diagnostic testing required for verifying compliance with the Title 24, Part 6, Building Energy Efficiency Standards, as specified by these regulations.

Rating System means the materials, analytical tools, diagnostic tools and procedures to produce home energy ratings, and provide home energy rating and field verification and diagnostic testing services (referred to as "home energy rating services" in Section 25942 of the Public Resources Code).

Reference Home means a low-rise residential building similar to the rated house, but for which the energy performance characteristics of each component exactly meet the reference house specifications defined in the HERS Technical Manual.

Service Water Heating means service water heating as defined in Section 101(b) of Title 24, Part 6 of the California Code of Regulations.

Time Dependent Valued (TDV) Energy means the time varying energy used by the building to determine the home energy rating pursuant to these regulations. TDV Energy accounts for the energy used at the building site and consumed in producing and delivering energy to a site, including, but not limited to, power generation, and transmission and distribution losses.

Note: Authority cited: Sections 25213 and 25942, Public Resources Code. Reference: Section 25942, Public Resources Code.

§ 1672. Requirements for Rating Systems.

(a) California Whole-House Home Energy Rating or California Home Energy Audit. A California Whole-House Home Energy Rating or a California Home Energy Audit shall be completed for a home only if the rating or the audit is completed as specified by these regulations and the HERS Technical Manual.

(b) Data Collection.

(1) For ratings of existing homes that produce a California Whole-House Home Energy Rating or a California Home Energy Audit, each rating shall be based on a site inspection of the home that includes data collection and diagnostic testing as specified by the Rating System in conformance with these regulations and the HERS Technical Manual. Each Rating System shall have documented procedures for site inspection and diagnostic testing of Energy-Rated Homes.

(A) The data collection shall be completed by a California Whole-House Home Energy Rater or by a California Home Energy Inspector directly supervised by a California Whole-House Home Energy Rater.

(B) The types and the details of data pursuant to each level of Rater certification shall be collected as specified in the HERS Technical Manual.

CHAPTER 17

STRUCTURAL TESTS AND SPECIAL INSPECTIONS

SECTION 1701 GENERAL

1701.1 Scope. The provisions of this chapter shall govern the quality, workmanship and requirements for materials covered. Materials of construction and tests shall conform to the applicable standards listed in this code.

1701.2 New materials. New building materials, equipment, appliances, systems or methods of construction not provided for in this code, and any material of questioned suitability proposed for use in the construction of a building or structure, shall be subjected to the tests prescribed in this chapter and in the approved rules to determine character, quality and limitations of use.

1701.3 Used materials. The use of second-hand materials that meet the minimum requirements of this code for new materials shall be permitted.

SECTION 1702 DEFINITIONS

1702.1 Definitions. The following terms are defined in Chapter 2:

- > **APPROVED AGENCY.**
- APPROVED FABRICATOR.**
- CERTIFICATE OF COMPLIANCE.**
- DESIGNATED SEISMIC SYSTEM.**
- FABRICATED ITEM.**
- INSPECTION CERTIFICATE.**
- INTUMESCENT FIRE-RESISTANT COATINGS.**
- MAIN WINDFORCE-RESISTING SYSTEM.**
- MASTIC FIRE-RESISTANT COATINGS.**
- SPECIAL INSPECTION.**
 - Continuous special inspection.**
 - Periodic special inspection.**
- SPECIAL INSPECTOR.**
- SPRAYED FIRE-RESISTANT MATERIALS.**
- STRUCTURAL OBSERVATION.**

SECTION 1703 APPROVALS

1703.1 Approved agency. An approved agency shall provide all information as necessary for the building official to determine that the agency meets the applicable requirements.

1703.1.1 Independence. An approved agency shall be objective, competent and independent from the contractor

responsible for the work being inspected. The agency shall also disclose possible conflicts of interest so that objectivity can be confirmed.

1703.1.2 Equipment. An approved agency shall have adequate equipment to perform required tests. The equipment shall be periodically calibrated.

1703.1.3 Personnel. An approved agency shall employ experienced personnel educated in conducting, supervising and evaluating tests and/or inspections.

1703.2 Written approval. Any material, appliance, equipment, system or method of construction meeting the requirements of this code shall be approved in writing after satisfactory completion of the required tests and submission of required test reports.

1703.3 Approved record. For any material, appliance, equipment, system or method of construction that has been approved, a record of such approval, including the conditions and limitations of the approval, shall be kept on file in the building official's office and shall be open to public inspection at appropriate times.

1703.4 Performance. Specific information consisting of test reports conducted by an approved testing agency in accordance with the appropriate referenced standards, or other such information as necessary, shall be provided for the building official to determine that the material meets the applicable code requirements.

1703.4.1 Research and investigation. Sufficient technical data shall be submitted to the building official to substantiate the proposed use of any material or assembly. If it is determined that the evidence submitted is satisfactory proof of performance for the use intended, the building official shall approve the use of the material or assembly subject to the requirements of this code. The costs, reports and investigations required under these provisions shall be paid by the applicant.

1703.4.2 Research reports. Supporting data, where necessary in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.

1703.5 Labeling. Where materials or assemblies are required by this code to be labeled, such materials and assemblies shall be labeled by an approved agency in accordance with Section 1703. Products and materials required to be labeled shall be labeled in accordance with the procedures set forth in Sections 1703.5.1 through 1703.5.4.

1703.5.1 Testing. An approved agency shall test a representative sample of the product or material being labeled to the relevant standard or standards. The approved agency shall maintain a record of the tests performed. The record