

California Energy Commission

ADDENDUM TO FINAL STATEMENT OF REASONS

TITLE 20, CALIFORNIA CODE OF REGULATIONS, SECTIONS 1670 THROUGH 1674

DATE _____
RECD. <u>July 01 2009</u>

The following additional information is added to the Final Statement of Reasons for Sections 1670 to 1674 of the California Home Energy Rating System Program Regulations.

Section 1670.

This section identifies the scope of the regulations for the California Home Energy Rating System Program.

For clarity purposes, "California" is added to "Whole-House Home Energy Rating" where applicable in the third paragraph.

Section 1671.

This section contains definitions that are applicable to the regulations. The following definitions contain nonsubstantive changes that are added to the section for the purpose of greater clarity.

- 1) *Building Performance Contractor*. "Holistic," as used in the definition, is defined in the *Merriam-Webster's Online Dictionary 2009* as "relating to or concerned with wholes or with complete systems rather than with the analysis of, treatment of, or dissection into parts." Holistic emphasizes the concept of whole-house approach. In addition, "as specified in Section 1674(e)" is added to the end of the definition for ease of reference.
- 2) *California Whole-House Home Energy Rater*. "Section 1672(d)" at the very end of the definition is replaced with "the HERS Technical Manual." Note: The conforming change is also made to Chapter 8.1.2 of the HERS Technical Manual.
- 3) *HERS Technical Manual or HTM*. The definition is changed to delete "2008" in front of "HERS Technical Manual" and to insert "(May 2009)" after the publication number.
- 4) *Rater*. For the correct reference cited in the definition, "Section 1673(c)" at the very end of the definition is replaced with "Section 1673(d)."

Section 1672.

This section specifies the data collection and analysis requirements for completing a California Whole-House Home Energy Rating or a California Home Energy Audit, the procedures for Field Verification and Diagnostic Testing, and the responsibilities of a HERS Provider and a Rater.

Unless otherwise specified, information described in the subdivisions below is intended for clarity purposes.

- 1) Subdivision (a) is amended to read: “ ... 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.”
- 2) Subdivision (b)(2) specifies that the California Whole-House Home Energy Ratings may be produced based on a sampling of one house out of a group of seven. The necessity for the use of this sampling approach is that it is consistent with the Reference Appendices, which were adopted by reference in the Title 24, Part 6, Building Energy Efficiency Standards.
- 3) Subdivision (e) references the term “on-site renewable generation” which is a term of art and explained in the HERS Technical Manual.
- 4) Subdivision (h) requires the inclusion of a utility bill analysis where utility bills are available for a period of at least twelve months. The necessity is that twelve months worth of utility data covering weather of all four seasons are the minimum required input for the Inverse Modeling determination of estimates of monthly and annual energy consumption as described in Chapter 5 of the HERS Technical Manual.
- 5) Subdivision (k) references “HERS Report” which is defined in Chapter 2 of the HERS Technical Manual.
- 6) Subdivision (l) adds “Title 24, Part 6,” before “Building Energy Efficiency Standards and Reference Appendices” for ease of reference and use.

Section 1673.

This section specifies the HERS Provider’s training and certification procedures for California Field Verification and Diagnostic Testing Raters, California Whole-House Home Energy Raters, Building Performance Contractors, California Home Energy Analysts, and California Home Energy Inspectors. This section further specifies the requirements for data maintenance and submittal, record retention, quality assurance, and conflict of interest provisions that are applicable to the Provider.

Unless otherwise stated, information described in the items below is intended for clarity purposes.

- 1) The second sentence in subdivision (a), representing the proposed new language, is deleted. The Energy Commission has determined not to move forward with the new language at this time.
- 2) The words “more in-depth” and “background” in subdivision (a)(2) are changed to “specific” and “general,” respectively, for the required training. Note: The corresponding changes are also made to Chapter 8.1.3 of the HERS Technical Manual, where applicable.

This subdivision identifies the specific and general training requirements applicable to the California Home Energy Inspector who works under the direct supervision of a California Whole-House Home Energy Rater. The necessity is that the California Home Energy Inspector does not need to possess knowledge in all the areas applicable to a Rater. The California Home Energy Inspector is required to have specific training that is directly related to their role of gathering data to enable the development of a California Whole-House Home Energy Rating and general training in other aspects of providing those ratings.

- 3) The words “more in-depth” and “background” in subdivision (a)(3) are changed to “specific” and “general,” respectively, for the required training. Note: The corresponding changes are also made to Chapter 8.1.4 of the HERS Technical Manual, where applicable.

This subdivision identifies the specific and general training requirements applicable to the California Home Energy Analyst who works under the direct supervision of a California Whole-House Home Energy Rater. The necessity is that the California Home Energy Analyst does not need to possess knowledge in all the areas applicable to a Rater. The California Home Energy Analyst is required to have specific training that is directly related to their role of performing analysis for a California Whole-House Home Energy Rating and general training in other aspects of providing those ratings.

- 4) The words “more in-depth” and “background” in subdivision (a)(4) are changed to “specific” and “general,” respectively, for the required training. Note: The corresponding changes are also made to Chapter 8.1.1 of the HERS Technical Manual, where applicable.

This subdivision identifies the specific and general training requirements applicable to the California Field Verification and Diagnostic Testing Rater. The necessity is that the California Field Verification and Diagnostic Testing Rater does not need to possess knowledge in all the areas applicable to a Rater. The

California Field Verification and Diagnostic Testing Rater is required to have specific training that is directly related to performing 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, Building Energy Efficiency Standards and general training in other aspects of providing ratings.

- 5) The word “in-depth” in subdivision (a)(9) is changed to “specific” for the required training. Note: The corresponding change is also made to Chapter 8.3 of the HERS Technical Manual.

This subdivision requires specific training of Building Performance Contractors in all areas identified in Section 1673(a)(1) of the regulations. The necessity is that the Building Performance Contractor is required to have specific training in all the areas to evaluate the home’s energy features and energy consumption in a holistic manner to determine recommendations for the best overall performance of a home.

This subdivision also deletes the word “special” in the second sentence to provide consistency with other sections of the regulations that refer to the Energy Commission-approved Building Performance Contractor program specified in Section 1674(e).

- 6) Subdivision (c)(3) adds the reference “pursuant to Section 1674(e)” at the end of the subdivision.
- 7) Subdivision (c)(4) adds the “Business and Professions Code” reference at the end of the subdivision.
- 8) The words “mandatory or optional input” and “mandatory or optional outputs” in Subdivision (e)(1) are changed to “required or optional input” and “required or optional outputs,” respectively, for clarity and consistency with the HERS Technical Manual and the ACM Manual.

This subdivision requires the HERS Provider to maintain required or optional input data for ratings for a period of ten years. The necessity is that it is the Energy Commission’s professional judgment that the extended data retention time is useful in analyzing program effectiveness over time and to recognize that the liability period for construction defects can extend for up to ten years.

The last sentence of the proposed new language in this subdivision is deleted. The Energy Commission has determined not to move forward with the new language at this time.

- 9) Subdivision (e)(2) requires the HERS Provider to maintain data for field verification ratings for a period of ten years. The necessity is that it is the Energy

Commission's professional judgment that the extended data retention time is useful in analyzing program effectiveness over time and to recognize that the liability period for construction defects can extend for up to ten years.

- 10) In subdivision (f), the reference to "Section 1673(e)(2)(H)" is changed to "Section 1673(e)(2)" to include all the applicable information for data collection and maintenance.
- 11) The third sentence of the proposed new text in subdivision (i)(1) is changed to read: "The qualifications of the Quality Assurance Manager and the Quality Assurance Reviewers shall be submitted to the Energy Commission." All words after the revised sentence are deleted. The term "qualifications," as used in this subdivision, has the dictionary meaning of those characteristics such as education, experience, knowledge, and skills that make a person particularly suited to do a job, in this case, the job of a Quality Assurance Manager or a Quality Assurance Reviewer.
- 12) Subdivision (i)(3)(A) specifies the extent to which the Provider shall evaluate ratings of Raters for quality assurance. The proposed new text of "past 12 months" in the first sentence replaces the "annual" period specified in the existing regulations. The same rationale applies to the next appearance of "past 12 months" in the proposed new text.

The Energy Commission's professional judgment is that if the Rater has had at least one quality assurance evaluation for any measure in the past 12 months, they only need additional quality assurance evaluations for those measures that the Rater frequently performs in their business. The language "10 times in the past 18 months" is used to determine if the Rater needs this additional quality assurance. This exemption balances the burden on the Rater with consumer protection.

Requiring the Provider to check "one percent of all ratings" in the Energy Commission's judgment is a reasonable minimum sample rate for quality assurance and is consistent with the rationale for the one percent check requirement in the existing regulations.

For Building Performance Contractors who are HERS Raters, the EXCEPTION to Section 1673(j)(3) allows them to perform work on the homes that they rate. The "five percent" quality assurance for Building Performance Contractors is intended to protect consumers and is consistent with the national quality assurance model supported by the United States Environmental Protection Agency's *Home Performance with Energy Star* Program.

The word "verified" near the end of this subdivision is changed to "evaluated" for consistency purposes.

- 13) Subdivision (i)(3)(C) provides that a Rater's quality assurance failures be reported in the Provider registry websites for six months. The necessity for this timeframe is that it provides a reasonable time for consumers to observe rating-related problems. Raters have more incentives to maintain truth, accuracy, and completeness of ratings given consumer access to this information during the specified time period.

It is the Energy Commission's professional judgment that two additional ratings of the failed measure performed by the same Rater in the past 12 months are necessary to determine if the Rater has a pattern of failure.

This subdivision also requires the Provider to evaluate two percent of ratings of the failed measure for the next 12 months in the event that a second deficiency is found. The necessity is to increase the quality assurance rate if a pattern of failure is determined. The Energy Commission's professional judgment is that if two failures were found in the Rater's previous annual review, an increase of quality assurance for that year to two percent is sufficient to identify ongoing problems.

- 14) Subdivision (i)(4)(A) specifies the quality assurance procedure for buildings or installations not specifically field verified or rated in the sampling group. The necessity for the greater of "one house or one percent" requirement is that it provides a reasonable but limited level of quality assurance to verify that the sampling process is working satisfactorily for each Rater.
- 15) Subdivision (i)(4)(C) specifies that the Provider shall submit quality assurance verification results to the Energy Commission annually. The necessity is that it is consistent with the annual data submittal specified in Section 1673(g) of the existing regulations.
- 16) For cross-reference purposes, Subdivision (j)(3) EXCEPTION is changed to read: "... under an Energy Commission-approved Building Performance Contractor program as part of a Provider's Rating System as specified in Section 1674(e) of the regulations and in the HERS Technical Manual, ..."
- 17) Subdivision (k) contains the terms "statewide standardized cost values and regional adjustment factors." These are terms of art and are further discussed in Chapter 6.6 of the HERS Technical Manual.

Section 1674.

This section specifies the requirements for submitting an application to the Energy Commission for certification as a HERS Provider, including the certification of the applicant's rating systems. The regulations provide the process for which the Executive

Director reviews, considers, and determines the approval or denial of an application and the corresponding specified timelines in the process.

Unless otherwise stated, information described in the items below is intended for clarity purposes.

- 1) Subdivision (d) contains the terms “HERS rating software” and “compliance software.” The term “HERS rating software” is defined and described in the HERS Technical Manual. The term “compliance software” is defined in Section 101 of the Title 24, Part 6, Building Energy Efficiency Standards.

The words “2008 Residential” and “Approval” that are before and after “ACM,” respectively; that appear at the end of the subdivision, are deleted to be consistent with the defined term in these regulations.

- 2) Subdivision (d)(1) is changed to read: “If the application for the HERS rating software approval is complete, the Executive Director shall make the application available to interested parties by posting the information on the Energy Commission website for public comments.” NOTE: The corresponding change is made to Chapter 1.4.2 of the HERS Technical Manual.
- 3) Subdivisions (d)(1) through (4) specify the Energy Commission’s procedures and timelines for the review, consideration, and approval of HERS Provider applications. The necessity for the specified timelines in these subdivisions are that they were adopted consistent with the existing application approval process described in Section 110 of the Title 24, Part 6, Building Energy Efficiency Standards and to clarify that they are business days to allow the Energy Commission sufficient time to effectively process the applications.
- 4) Subdivision (d)(5) specifies a timeline of 30 business days within which the recommendation for the HERS application be placed on the business meeting agenda for consideration. The necessity is that this timeline is consistent with Section 10-110 of the Title 24, Part 6, Building Energy Efficiency Standards and the Energy Commission’s normal processing time for placing items on its Business Meeting agendas.
- 5) Subdivision (6) is deleted to avoid redundancy with Chapter 1.3.2 of the HERS Technical Manual. Note: The corresponding deletion is also made to Chapter 1.4.2 of the HERS Technical Manual.

In addition, Chapter 1.3.2 of the HERS Technical Manual specifies that an application fee of \$1,000 is required to cover costs of evaluating the application package for HERS rating software. This application fee is similar to the fee that the Energy Commission charges for evaluating the application package for compliance software as specified in Section 1.3 of the ACM Manual. The Energy

Commission estimates that the actual cost in personnel time and resources of evaluating the application package for HERS rating software will exceed the \$1,000 proposed fee by several thousand dollars, based on the current fee structure. However, the Energy Commission believes that the \$1,000 level is an appropriate amount necessary for the Energy Commission to seek partial reimbursement of the actual costs for the application review and to ensure that the Provider applicant is serious and committed to the certification process. It is the Energy Commission's intent to not price the application evaluation fee beyond what the market would support.

In addition, the regulations and the HERS Technical Manual include other minor changes, such as clarifications and grammatical, capitalization, and reference section corrections.