

# Memorandum

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From: **California Energy Commission** Dave Ashuckian, Deputy Director  
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Subject: STAFF RECOMMENDATION TO APPROVE U.S. ENERGY RATERS ASSOCIATION (USERA) AS A HOME ENERGY RATING SYSTEM (HERS) PROVIDER FOR HERS RATERS PERFORMING FIELD VERIFICATION AND DIAGNOSTIC TESTING (FV & DT) ON ALTERATIONS FOR THE 2013 BUILDING ENERGY EFFICIENCY STANDARDS, INCLUDING THE ENALASYS THIRD PARTY QUALITY CONTROL (TPQC) PROGRAM; TO BE CONSIDERED AT THE JULY 22, 2014 BUSINESS MEETING.

## Summary of Item

The Energy Commission's HERS regulations, Title 20, Chapter 4, Article 8, Sections 1670 through 1675, authorize the Energy Commission to approve organizations to be HERS Providers, who oversee the training, certification, and oversight functions of HERS Raters. The Title 20 regulations detail the functions and systems that must be included in a HERS Providers' program, and the application requirements and other criteria that must be met for Energy Commission approval. HERS Raters conduct the FV & DT services required to demonstrate compliance with Title 24, Part 6, *Building Energy Efficiency Standards*, in this approval for Alterations only, to ensure correct installation of specific building features and equipment that have been shown to be prone to incorrect installation in the past. The procedures for how FV & DT is to be conducted are detailed in sections RA2 (for residential construction) of the *Reference Appendices* for the *2013 Building Energy Efficiency Standards*. The *Reference Appendices* are adopted as regulations at the same time that the Energy Commission adopts the *Building Energy Efficiency Standards*. Detailed protocols for FV & DT of specific building features and equipment are also included in the 2013 *Reference Appendices*.

The 2013 Residential Appendices, Section RA2.7, give the Energy Commission the authority to approve TPQC Programs that serve some of the functions of HERS Raters for field verification purposes but do not have the authority to sign compliance documentation as would a HERS Rater. A TPQC Program is a field verification approach that verifies contractor installation quality by collecting detailed equipment performance data and providing the contractor with feedback on the measures being verified. The data that is collected by the TPQC Program is more detailed than the data required for showing compliance with the *Building Energy Efficiency Standards*, provides an independent check on the validity and

accuracy of the installer's claim that compliance has been achieved, and is not alterable by the installer to indicate that compliance has been achieved if in fact it has not been achieved.

Installers are required to verify and/or perform diagnostic field testing on certain installations whose quality is required by the *Building Energy Efficiency Standards* or whose installation quality is given special credit in these standards. These installations are in turn checked by a HERS Rater who acts as a special inspector under the building code. HERS Rater field verification and diagnostic testing may be done for each and every installation or through sampling from a group where similar installations have been performed. Sampling from groups allows the permit applicant to reduce the time and costs associated with HERS Rater verification. Where a HERS Rater is used to verify an installation without a TPQC Program, sampling can be performed on a single installation and the results extended to a sample grouping of 7. When a TPQC Program is used, the sample group can be as large as 30. This means that out of a group of 30 similar installations, only one member of the group needs to be tested and verified and the results of this verification are then extended to the other 29 installations. This process greatly reduces the time and costs associated with HERS verification when large numbers of installations are done with the same HERS verification-required measures.

The Third Party Quality Control Program will use the *Enalays* automated radio-frequency software-controlled data gathering system, error checking and procedure-flagging procedures, and the "eOne" platform software that evaluates and flags uploaded data and requires periodic and timely data uploads from installers who are trained and certified through the TPQC Program.

USERA has submitted an application for approval as a HERS Provider to oversee HERS Raters conducting field verification and diagnostic testing of Alterations for the 2013 Building Energy Efficiency Standards, which went into effect on July 1, 2014. As part of the application, USERA has requested approval of *Enalays* computerized data collection system as a TPQC Program. Staff has reviewed USERA's application and has determined that it satisfies the requirements specified in the HERS regulations and the Reference Appendices as a HERS Provider overseeing HERS Raters conducting FV & DT and for *Enalays* as a TPQC Program for Alterations.

Project Co-Managers

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Business Meeting Participants

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Commission Action Requested

Approve USERA as a HERS provider and their field verification and diagnostic testing training program to be used to comply with the *2013 Building Energy Efficiency Standards*, and approve *Enlasys* as a Third Party Quality Control Program, both for use with Alterations as defined in Title 24, Part 6.



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