

The New HERS QA Program

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2014 CABEC Conference

HERS Provider

CalCERTS, Inc.

CalCERTS is a private company approved by the California Energy Commission to be a Home Energy Rating System Provider.

- **Training & certification**
- **Registry operation**
- **Quality Assurance**



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Introduction

- First we'll very briefly review some of the key regulations governing the QA process.
- Then we'll discuss how CalCERTS performs QA Field Review. It starts with scheduling a visit to the address.
- We'll discuss how Field Review works,
- How we inform Raters of their results and encourage discussion and education,
- And what we report to the CEC.

HERS Regulations

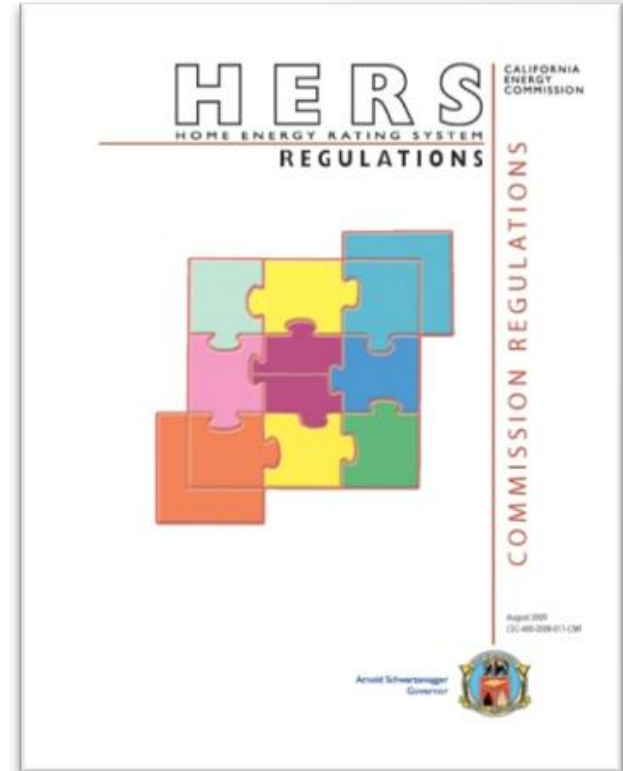
2008 HERS Regulations

CEC-400-2008-0011-CMF

§1673(i) - Quality Assurance

Requires HERS Provider to maintain a QA program

- Dedicated QA Staff, approved by the CEC
- Field reviews of FV/DT and Whole-House Ratings



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Title 20 – California HERS Regulations

CalCERTS Quality Assurance Program

QA Inspections

“For each Rater, the Provider shall annually evaluate the greater of one rating, randomly selected or one percent of the rater’s past 12 month’s total number of ratings (rounded up to the nearest whole number) for each measure tested by the rater.”

- Measure includes any HERS test, WHR, BPC, or EXC test.

Title 20 – California HERS Regulations

CalCERTS Quality Assurance Program

“Raters shall not be informed that a building or installation will be field checked until after they have completed the original rating.”

“The Provider also shall conduct the same check on one percent of all ratings conducted through the Provider, selected randomly from the Provider’s entire pool of ratings on an ongoing basis.”

Put together this means that any testing performed by a Rater could be subject to random QA Field Review – Raters can never presume that their work won’t be field reviewed.

Title 20 – California HERS Regulations

CalCERTS Quality Assurance Program

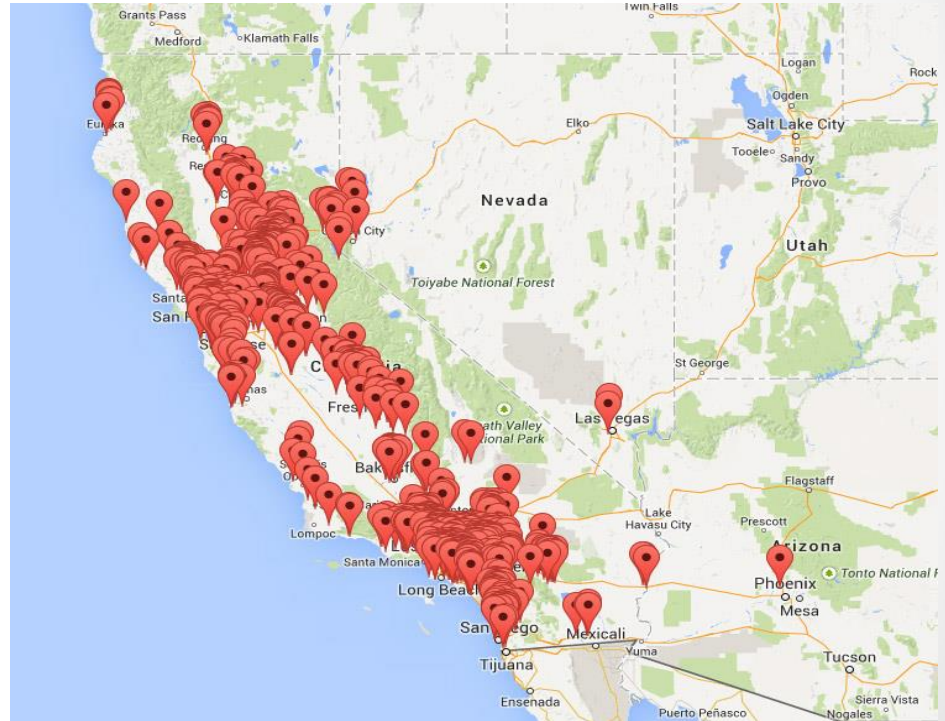
Sampling

Additionally, when Sampling is used to demonstrate compliance:

- CalCERTS must test one percent of projects that passed as part of a sample group but were not actually tested by the Rater.
- This is meant to discover if Sampling is truly random or not. These results are reported to the CEC and Contractors who are not Sampling randomly may also be reported to the CSLB.

Scheduling

- There are Raters all over California. Scheduling QA Field Reviews for all of them can be a challenge.
- CalCERTS strives to make the minimum number of visits required to achieve the QA quota without disrupting homeowners or contractors.



Scheduling

Alterations vs. New Construction

- **When the building is occupied, the occupant may always decline QA Field Review. Many are unfamiliar with the HERS process or the purpose of Quality Assurance when we contact them.**
- **When the building is unoccupied, the building owner or superintendent may decline field review**
- **All parties benefit from Field Review – Energy Consultants might consider advising all their clients to welcome Field Review to help ensure they got what they paid for!**

Scheduling

Difficult Measures to QA

- Any measure that needs to be reviewed prior to hanging the drywall!
 - Quality Insulation Installation (QII)
 - Reduced duct surface area
 - Domestic Hot Water



Scheduling

Meeting the CEC's quota

Let's say a Rater has done the following: 237 Duct Leakage Tests, 115 QII, and 78 Building Envelope. Then we must QA 3 Duct Leakage Tests, 2 QII, and 1 Building Envelope.

When we schedule, we would attempt to find addresses in our Registry where the Rater did all 3 tests at once, and then contact the homeowner or superintendent to conduct a Field Review

If there are no such addresses, or the homeowner/super won't let us in, we will have to do additional work, at additional cost, to complete our QA quota.

Data

	Primary County:	Envelope						QII - Framing						QII - Insulation						Ducts					
		T	TR	A	AR	QT	QA	T	TR	A	AR	QT	QA	T	TR	A	AR	QT	QA	T	TR	A	AR	QT	QA
+ 2)	Riverside	1	1			0	0	1	1			0	0	1	1			0	0	73	3			3	0
Sam	Los Angeles																			3	1			0	0
ff, Ion	Los Angeles																			2	1			0	0
J	Placer																			6	1			0	0
id	Shasta																			60	1			1	0
el	Riverside																			2	1			0	0
n	Butte																			3	1			0	0
n	Yolo							2	1			0	0	2	1			0	0	41	1	115	2	1	1
n S	Sutter																			68	1			1	0
rd	Orange																			43	1	59	1	3	0
harlie	Sacramento	1	1			0	0																		
bert	Riverside							6	1	7	1	0	0	6	1	7	1	0	0	108	2	21	1	2	0
m	Riverside	9	1	1	1	0	0													60	1	5	1	1	0
n	San Diego							2	1			0	0	2	1			0	0	168	2			2	0
nberly	Shasta	1	1			1	0	8	1			0	0	7	1			1	0	43	1			2	0
ice	Yolo																			95	1	224	3	1	2

Field Review

Field Reviewers

- More knowledgeable than minimum training
- Wider experience
- Subject to approval by Executive Director of the CEC

Field Review

Homeowner Interview

- Since Field Review takes place after the initial Rating, it's possible for conditions to change between the first Rater's visit and the Field Review.
- To account for this, Field Reviewers always ask building owners a series of questions, including:
 - “Were you present when the initial rating took place?”
 - “Has anyone done any work on or near the ducts?”

Dispositions

“As your provider, CalCERTS, Inc. is responsible for performing Quality Assurance (QA) reviews of HERS raters, as mandated by Title 20. A routine CalCERTS Quality Assurance field review at the following address has found certain discrepancies.

We understand that there can sometimes be extenuating circumstances that account for such discrepancies. We encourage you to give us a call to review the results, discuss the QA process, and take this opportunity to let us answer any questions you may have as a HERS Rater.”

Sample of Field Review Results

RATED ADDRESS:

1234 Sample St, Los Angeles, CA 90065

Rated: 7/17/2014

Date of QA: 7/28/2014

Measures with 1st Significant Discrepancy(s):

Indicates that your reported results were significantly different from ours.

RCV:

QA Field Review found the Superheat did not fall within the target range (high) which may indicate the system was undercharged

Rater used incorrect cooling (see attached manufacturer charging chart)

TXV:

QA Field Review found the Superheat did not fall within the target range (high) which may indicate the system was undercharged, or there is a problem with the TXV (or EXV), or sensing bulb.

Measures with No Significant Discrepancy(s):

Your reported results are within the QA Review requirements of Title 20.

Duct Leakage Existing: CF-4R-MECH-21

Changes

OII = Order Instituting Inquiry

- **Required by the results of a judicial action at CEC in 2012**
- **Work was begun, but came under question as to procedures**
- **New Rulemaking may happen in 2015**

You could benefit from QA

Should CABEC institute its own QA Program?

- **CABEC *certifies* CEA's**
- **CEA wants others who claim CEA to be able to show that their work continues to be at CEA certified level**
- **How often?**
- **Who does QA?**
- **What are ramifications of pass/fail.....etc.**

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Thank you!