

**DOCKETED**

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*Comment Received From: Russell King, ME*  
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## **Status of the HERS Industry in California and Proposed Changes**

*Additional submitted attachment is included below.*



Coded Energy, Inc.  
Software  
Training  
Building Science Consulting  
HVAC Design

To: Docket 22-HERS-02  
From: Russell King, ME, CEO/Founder Coded Energy, Inc.  
Re: Status of the HERS industry in California and proposed changes  
Date: November 3, 2022

Dear CEC Commissioners and Staff,

A bit of historical perspective is in order. I have been involved in the California HERS industry since Day 1, including being the project manager on the CEC contract to develop the very first Home Energy Rating System in California. That was 30 years ago. At the end of this letter, I highlight some of my experience. As you will hopefully see, I have had a long involvement with the HERS industry and the Title 24, Part 6, Building Energy Efficiency Standards (aka, energy code).

The original purpose of a HERS program was, as the name implies, to give each home a score for the purpose of evaluating its energy efficiency, and to provide a way to quantify and incentivize energy savings from energy improvements. We trained and certified many HERS raters and developed special software. It was a successful and innovative program. At that time, it had nothing to do with the energy code.

In the mid to late nineties, the CEC proposed new measures for the energy code that depended heavily on how well a feature was installed. This required more than just an inspection. It required sophisticated diagnostic testing with complicated and expensive equipment. Duct sealing is the most obvious example of these. I was in the CEC hearings when these were being proposed and I distinctly remember a member of the California Building Officials (CALBO) CEC Advisory Committee standing up and asking, "You don't really expect our building inspectors to do this testing, do you? We are already overworked and barely have the time to do health and safety inspections as it is." That's when someone proposed the concept of "special inspectors". HERS raters were the ideal candidates for this because they were already trained and certified on the diagnostic tests and equipment. There were concerns over consistency, competence, and conflicts of interest. Thus, was born the "HERS Regulations". These were developed in conjunction with CEC staff and industry stakeholders, including CBIA and CALBO. Two HERS providers, CHEERS and CalCERTS, rose to the challenge and developed longstanding programs with **no financial assistance from the CEC**. Without them, the energy code as written today simply could not be enforced. The CEC should be thanking HERS providers.

HERS raters have evolved into a new purpose. They are an extension of the building department and are **special inspectors** for the energy code in every sense of the term. When I train building departments, I often take an informal poll regarding HERS raters and the overwhelming response I get is that HERS raters should inspect more energy features to free up the time of the over-stretched building inspectors. We can all agree that the energy code is very complex compared to other codes. It

takes a special consultant to determine compliance and it takes a special inspector to field verify the energy code.

I have not had time to fully digest the proposed changes to the HERS program, but it has been a long time coming. I am very concerned that many of the changes are punitive and intended to hamstring the HERS providers and potentially drive them out of business. I know from first-hand experience that there have been many personality conflicts and ego clashes between CEC staff and the HERS providers and I'm worried that this is influencing the proposed changes. If so, this is a case of cutting one's nose off to spite their face. I encourage the Commissioners to look into this before making any decisions.

Yes, there are problems with the program. Yes, there are incompetent and unethical HERS raters in the field. Yes, there is conflict of interest inherent in the system. Yes, the providers are having a very difficult time meeting their mandated quality assurance requirements. These can all be fixed. Most of the examples of these problems that CEC staff has brought up are purely anecdotal. I have yet to see any real data on what percent of HERS inspections are questionable. For every example of a bad HERS inspection, I can point to dozens, if not hundreds of examples where the HERS rater prevented a house from being built incorrectly or of an HVAC system not being installed correctly.

HERS raters have evolved into the single most effective job-site trainers on the CA energy code. They have had tremendous impact on the overall quality of work done by HVAC installers, insulation installers, and many other trades. I work closely with RESNET and other national organizations and train HVAC contractors around the country. Our HERS program is widely respected and admired (and in some cases feared) across the country. We have worked long and hard to get to this point and it would be a shame to ruin it. If you *really* want to fix the problem, simplify the code. Short of that, listen carefully to the HERS raters and building inspectors. Make thoughtful, informed improvements to the program, not heavy-handed punitive changes.

**It is absolutely imperative that CALBO and all California building departments be heavily involved in this process.** Other than the HERS raters and providers, whose livelihoods are at stake, code enforcement personnel are the ones who will be most impacted by the changes. If a HERS rater is not going to do the inspection, a building inspector will have to.

Please do not hesitate to contact me if you have any questions.

Sincerely,



Russell King, ME  
CEO

My experience with the HERS programs and the Energy Code, in chronological order:

- I managed the 1992 CEC contract to develop the very first Home Energy Rating System in California. It was called the California Home Energy Rating System (CHERS) which became a non-profit organization, funded by utilities and other stakeholders including the California Building Industry Association (CBIA). CHERS eventually became CHEERS.
- I managed the CEC's Certified Energy Plans Examiner program for California Building Officials (CALBO)
- I was an independent energy consultant and HVAC designer for several years
- I ran the mechanical engineering department for ConSol for eight years and worked closely with our large team of HERS raters.
- I started Sierra Building Science and was the sole contract trainer for CalCERTS for several years and trained many HERS raters. Sierra Building Science staff were eventually absorbed by CalCERTS
- While at CalCERTS, I was the primary author of the only CEC-approved Whole House Home Energy Rating System in California (aka, HERS II).
- I worked for myself again for a while and was contracted to help develop the residential compliance forms for the 2013 code. I also contributed to several chapters of the 2013 Residential Compliance Manual.
- I worked for Benningfield Group where I developed and taught energy code classes to over 45 building department for the Bay Area Regional Energy Network (BayREN), including a class specifically on using the HERS registries and Project Status Report.
- I went back to work for CalCERTS in 2017 and worked there for over 4 years as the Senior Director of Technical Services.
- One year ago, I went back to work for myself to focus on developing a new HVAC design and energy modeling software with my son. I still teach for BayREN and am heavily involved with the energy code, including being on the Board of Directors of the California Association of Energy Consultants (CABEC).