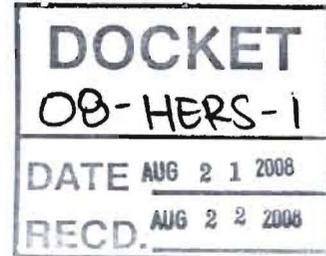




August 21, 2008

Mr. Bill Pennington
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814



I attended your Efficiency Committee Workshop August 14th for HERS Phase II and want to first thank the Commissioners and Staff for their thoughtful considerations of the input from industry stakeholders. Please accept these written comments.

In light of California's consideration of AB32 and the upgrade of existing homes, the CEC tool for evaluating existing homes is not only a technical tool, but will quickly become a policy decision making tool and a consumer marketing tool. For this reason, it is critical that this tool is an educational instrument for setting achievable thresholds and expectations and not create a hindrance to meeting climate action goals. To optimize its usefulness, it is also essential that it mirrors benchmarks being used in the California AB32 Scoping Plan.

Recommendations

To this end, I encourage the CEC to consider both the Reference home benchmark and the graphic design of the HERS Index scoring. I recommend the following three changes.

- A. Set the Reference home benchmark at the 2005 Title 24 Energy Code instead of the 2008 T24.**

Logic for Recommendation

The California AB32 Scoping Plan uses the 2005 T24 as its reference point. In doing this, all homes built in conformance with 2008 Title 24 Energy Code will receive credit for decreasing the carbon emissions in California. This benchmark mirrors the intent adopted in AB32 and sets realistic expectations.

The CEC Rating System Program will be a tool used in the implementation of the Scoping Plan. Matching the benchmark used in the Scoping Plan will optimize its usefulness.

B. Eliminate the emphasis on the Reference Home (100 points) on the graphic scale. Consider the pros and cons of the color gradient and the impact of the scale on the perception of the users.

Logic for Recommendation

The upgrade of existing homes is essential to meeting our climate action goals. I believe that encouraging all homeowner upgrades, no matter the magnitude; will be important in the success of this task. Because the CEC tool is a key instrument to achieving our goals, everything about the tool must support the message that all upgrades are valued.

Please consider the following in judging my recommendations.

- The industry affiliates the CEC with setting standards for energy efficiency. Regardless of the CEC's intent, putting emphasis on the 100 points in the graphic scale implies a target, goal or approved standard.
- Because of the CEC's apparent role regarding standard setting, there is danger that policy makers could see the 100 points as a reasonable standard for mandates. Likewise, homeowners and real estate professionals could see anything less than 100 points as not worthy.
- If the Reference (100 point) house is a 2008 code compliant home, likely no more than 1% of the homes in California will receive a point value between 100 and the 0 net energy.
- 70% of the homes in California were built before 1978. If the Reference (100 point) house is a 2008 code compliant home, nearly 70% of the homes in California will receive 170 points or more. Depending on the climate zone, the equivalency is 150% - 300% less efficient than the 2008 code.
- The cost and effort to upgrade these same pre-1978 homes to 100 HERS Index points on the CEC proposed scale is enormous and may actually be impossible. Certainly one would need to gut the home to install a thermal envelope, upgrade the electrical system, tighten the home, change out all the equipment and upgrade appliances. Even this work may not be enough to get the home to 100 points.
- If homeowners and policy makers are given the message, either directly or subtly, that 100 HERS Index is the target or standard, it will create a hindrance to the success of our goals.

C. Expanded point scale from 0 points to 180 points. Perhaps the 0 point could be titled Grid Neutral and the 180 points be titled Typical Pre-80 Inefficient Home or something to that effect to provide the context for the points.

Logic for Recommendation

In Build It Green's development of GreenPoint Rated Existing Home program, setting realistic energy thresholds for program qualifications was essential. To determine an energy efficiency threshold we retained Douglas Beaman & Associates to conduct many computer runs using various cost effective energy efficiency upgrades and provide analysis of the findings. We also determined HERS Index scores based on 2005 T24 code compliant home as the reference (100 point) home.

We discovered the following:

- Across climate zones, the average HERS Index score of an as built (not upgraded) pre-80 homes was more than 200 points. Those homes were more than 150% worse than a 2005 code compliant home.
- Modeled homes with the following cost effective upgrades showed an approximate 40% energy efficiency increase across climate zones.
 - Attic and floor insulation to code
 - 90% FAU
 - 13 SEER / 11.5 EER AC unit to
 - Above code duct insulation
 - Tight ducts to <15% leakage
 - Tight envelop to .05 ACH
- Installing the above upgrades resulted in a HERS Index averaging 173 points.
- The cost of the above referenced upgrade is inaccessible to many, if not most California homeowners, yet the work only achieves a 40% improvement.
- After reviewing this information, GreenPoint Rated Existing Home was developed as a two tier program, one to accommodate homeowners doing easy prescriptive energy upgrades and another using a whole house performance based energy threshold.

Final Notes

We must consider the implications of the tools and systems we develop in the upgrade of existing homes to insure that an achievable pathway is established and benchmarks for success are set. Knowing that the tools will be used to establish benchmarks, they must be educational and intuitive for all users, including policy makers, homeowners and industry professionals.

The proposed CEC tool is a magnificent instrument and the product of years of work. It could very likely be the one of the greatest asset to our State's ambitious climate action goals. I encourage the CEC to consider all aspects of the tool to ensure its effectiveness both technically and educationally as a pathway to our goals.

Sincerely,

Tenaya Asan
GreenPoint Rated Program Manager
Build It Green

Docket Optical System - 08-HERS-1

From: Helen Lam
To: Docket Optical System
Date: 8/22/2008 8:33 AM
Subject: 08-HERS-1
Attachments: Comments to CEC.8.21.08 from Build It Green.pdf

Good morning,

Please docket and distribute the attached for the referenced Docket Number. Thank you.

Helen Lam, Energy Efficiency Specialist
California Energy Commission
Buildings and Appliances Office
1516 9th Street, MS-25
Sacramento, CA 95814
Telephone: (916) 651-3007
Fax: (916) 654-4304
E-mail: hlam@energy.state.ca.us