DOCKETED	
Docket Number:	23-HERS-02
Project Title:	Whole-House Home Energy Rating and Labeling Pre-Rulemaking
TN #:	254663
Document Title:	BayREN comments re Whole-House Home Energy Rating and Labeling Pre-Rulemaking RFI
Description:	N/A
Filer:	System
Organization:	BayREN
Submitter Role:	Public Agency
Submission Date:	2/23/2024 2:03:50 PM
Docketed Date:	2/23/2024

Comment Received From: BayREN
Submitted On: 2/23/2024
Docket Number: 23-HERS-02

BayREN comments re Whole-House Home Energy Rating and Labeling Pre-Rulemaking RFI

Additional submitted attachment is included below.

Local Governments Empowering Our Communities

February 23, 2024

California Energy Commission
Docket Unit
MS-4
Re: Docket No. 23-HERS-02
715 P Street Sacramento, CA 95814
Sent via email only to: docket@energy.ca.gov

Project Title: Request for Information on Whole-House Home Energy Rating and Labeling Pre-Rulemaking

Dear Commissioners and Staff,

Bay Area Regional Energy Network (BayREN) is pleased to submit these comments and recommendations regarding the CEC Request for Information (RFI) on Whole-House Home Energy Rating and Labeling Pre-Rulemaking.

BayREN looks forward to leveraging our deep experience and connections in partnership with the CEC to address the intent of the Whole-House Energy and Labeling program. BayREN also recognizes the spirit of collaboration and alignment that the CEC has taken in its approaches to meeting state decarbonization goals. As a California Public Utilities Commission (CPUC) authorized energy efficiency program administrator, BayREN currently delivers a suite of energy programs that benefit Californians. As of 2024, these programs include regional and now a statewide offering to improve the energy performance of the residential sector. The CPUC has recently authorized energy efficiency program administrators to layer in integrated demand side management (IDSM) elements, and BayREN is adapting its programs accordingly.

Through its Green Labeling program, BayREN has been working with local governments and the US Department of Energy (DOE) to promote the availability of energy information in the single-family marketplace. The Green Labeling program trains and works with real estate professionals on energy efficiency and electrification and provides rebates for the DOE Home Energy Score, as well as

supports a workforce of over 50 Home Energy Score Assessors. In 2023, the CPUC 2024-2032 Business Plan approved the Home Energy Score portion of the Green Labeling program to scale statewide beginning in 2026 and local jurisdictions are already gearing up for deployment.

Overview of BayREN Comments:

- The CEC should develop a minimum set of standards that *energy labels* must meet in the state, rather than recreating an all-encompassing program that duplicates, and potentially conflicts with, existing mechanisms in the market. The CEC should coordinate with and learn from the experiences of existing program implementers in the space.
- For low-income and disadvantaged communities, energy consumption is not always correlated with energy efficiency, and CEC standards would benefit from specifications that recognize the value of asset scores (i.e. Home Energy Score).
- The role of code compliance and market education should not be conflated, but rather supported and deployed for the right audiences.
- Since 2015, BayREN has delivered Home Energy Scores in the Bay Area, and run a successful Green Labeling program since 2018 via CPUC authorization and has been directed to expand the program statewide.
- Alignment of federal funding, investment tax credits, state programs, and ratepayer programs are essential to meeting state climate change mandates.
- The CEC's Home Energy Rating and Labeling Standards would greatly benefit the residential sector if aligned with the statewide BayREN Home Energy Score California Program.

1. What home energy rating and labeling services and programs currently exist?

a. Which existing programs are the most developed or have completed the largest number of ratings?

The US Department of Energy (DOE) Home Energy Score™ has existed for 10 years and has received over $10M of federal investment, with lead implementation from the DOE Office of Energy Efficiency and Renewable Energy (EERE) as the administrator, along with the Pacific Northwest National Laboratory (PNNL), Lawrence Berkeley National Laboratory (LBNL), National Renewable Energy Laboratory (NREL), and Interplay Learning.

In the Bay Area, Home Energy Scores have been conducted since 2015 when the City of Berkeley began requiring scores during a real estate transaction through their Building Emissions Savings Ordinance (BESO).[1] In 2018, BayREN launched the Green Labeling program, which has since promoted the availability and understanding of home energy information, including rebates for the DOE Home Energy Score.

As of 2019, the Home Energy Score tool has 550+ assessors nationwide, 35 active partners,12 software tools that leverage the API[2], and, as of 2024, there have been over 235,000 scores created.[3]

StopWaste, the lead for BayREN's Green Labeling program, is a DOE Home Energy Score partner. Since 2015, there have been over 23,000 Home Energy Scores in the Bay Area, with about 3,100 scores conducted in Berkeley under their BESO. This represents about 1.3% of the total single family homes in the Bay Area and about 2.3% of single family homes in Alameda County[4] where both Berkeley and the City of Piedmont (as of 2021[5]) require energy assessments at the time of a real estate listing. In 2023, there were over 5,600 scores conducted by 54 Assessors across 26 companies covering all 9 counties and over 100 different jurisdictions.

b. Which existing programs successfully promote consumer awareness and education on the monetary and or environmental benefits of energy efficiency?

The decade-long efforts of BayREN include a Green Labeling program using the Home Energy Score to promote customer awareness of energy efficiency. These

---

[1] https://berkeleyca.gov/construction-development/green-building/building-emissions-saving-ordinance-beso

[2] https://www.energy.gov/sites/default/files/2019/05/f62/bto-peer–2019-ast-lbnl-pnnl-homeenergyscore.pdf

[3] https://betterbuildingssolutioncenter.energy.gov/home-energy-score

[4] Based upon California DOF E-5 City County 2023 Tables for single detached and single attached housing units: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/

[5] https://piedmont.ca.gov/services__departments/planning__building/about_building_/home_energy_assessments#:~:text=The%20Home%20Energy%20Assessment%20must%20be%20prepared%20in%20the%20past,within%20the%20past%20ten%20years

programs have been authorized by the CPUC to continue for another four years, and BayREN is now the statewide lead of a program using Home Energy Score.

BayREN's CPUC-authorized Green Labeling program offers two primary services: (1) training Bay Area Assessors to perform a DOE Home Energy Score and offering a rebate for each score performed, and (2) providing continuing education for realtors, appraisers, and lenders to increase their ability to understand, market and evaluate energy efficient and green homes. Because the value of energy efficiency in homes is unclear to most residents[6] standardized energy asset ratings for residential (and non-residential) buildings, like Home Energy Score, are needed. A standard energy asset rating is best accomplished regionally to minimize a patchwork of programs and availability. BayREN has assisted local governments that have mandated Home Energy Scores in local ordinances. The program level metrics measure the outcomes specific to the Market Support segment, including:

- Increasing the demand for EE as measured by the number of single-family homeowners and renters who have obtained EE products/services (Home Energy Score).
- Increasing supply as measured by the number of real estate professionals trained in EE and their level of knowledge of EE products and services.
- Supporting innovation and accessibility of technologies, approaches, and services as measured by setting up the processes to provide ongoing delivery of Home Energy Score for the public and other regional mechanisms to make EE transparent.

d. Which existing programs increase compliance with building standards?

The Home Energy Score report provides the home's score, estimated energy use and associated costs and greenhouse gas emissions, the existing conditions of the home, and recommendations for improvements. In the Bay Area, our custom report also connects recipients to the BayREN Home+ single family rebate program and an upcoming redesigned report will also include links to other sources of state

[6] "It is not obvious to many homeowners that deep energy efficiency retrofits can create multiple benefits including bill savings and better air quality, or what options are available to them to pursue deep retrofits." CEC 2019 California Energy Efficiency Action Plan at 24.

and federal funding. This can help motivate homeowners to make upgrades to bring their existing homes closer into compliance with building standards.

Additionally, studies have shown that disclosure of information can motivate homeowners to make upgrades. In a 2016 paper, Dunsky Energy Consulting examined five Home Energy Rating and Disclosure Programs and found audit-to-retrofit conversion rates ranging from 12% (Austin, TX) to 37% (France).[7] In 2023, BayREN underwent an extensive evaluation of what Home Energy Score participants received rebates through the BayREN Home+ program. Overall, 16% of Home Energy Score participants went on to receive a Home+ rebate and 13% received the score before making an energy efficiency upgrade. The highest upgrade year was 2019 when 24% of scores received a rebate through Home+. In 2024, BayREN will be receiving data about PG&E single-family rebate participation to perform a similar study. These are the rebate programs where BayREN obtained participant data to compare, but a homeowner could also have made an upgrade through a different rebate program or received no rebate for making energy efficiency improvements. This demonstrates that home labels do have the ability to drive retrofit activity and increase compliance with building standards.

A 2022 study by Lawrence Berkeley National Lab[8] found a statistically significant relationship between an increase in a Home Energy Score rating and a higher sales price. In a study of over 25,000 Home Energy Scored-single family properties, home prices were higher by 0.5% for every 1-point increase on the DOE's 1 to 10 scale. The study also found sales prices to be 0.4% higher for every $100 decrease in the Home Energy Score estimated annual energy use. Lastly, there was a correlation found between a higher Home Energy Score and lower mortgage delinquency rates. This demonstrates the Home Energy Score's value for both the home buying and lending/appraising communities.

In 2020, ACEEE published the results of a controlled experiment testing the value of home labels on real estate listings.[9] In a mock multiple listing service-type

---

[7] Alex J Hill, et al., "Predicting Home Energy Rating and Disclosure Program Impacts for North American Jurisdictions", 2016 ACEEE Summer Study on Energy Efficiency in Buildings

[8] https://emp.lbl.gov/publications/how-does-home-energy-score-affect

[9] https://www.aceee.org/research-report/b2002

website, participants were shown listings with varying forms of energy information shown in different ways, including estimated utility bill pricing and the Home Energy Score 1-to-10 gradient. Homebuyers who were shown energy efficiency information clicked on the least efficient option 23% less often and the most energy-efficient option 14% more often than those who did not see efficiency information. They also demonstrated a higher willingness to pay for a more energy efficient home. The most effective format for the energy efficiency information was the Home Energy Score scale. ACEEE created a similar study for the rental housing market[10] and published a report in 2022 that demonstrated similar results.

3. What are the most important elements to creating a successful home energy rating and labeling program?

BayREN believes the following aspects of a home energy rating and labeling program are necessary for success:

- **Accessibility and Readability:** Home energy ratings need to first and foremost be accessible to the workforce and to residents. A key element to creating a successful Home Energy Rating program for existing buildings is to acknowledge and work with an existing conditions baseline which analyzes and gives credit for "below code" improvements, more details are provided in 8 below. It is also vital for the information provided in the report to be understandable and intuitive, more detail on this is provided in responses to 1(b) and 7.

- **Avoid Duplication and Build on Existing Efforts:** BayREN looks forward to leveraging our deep experience and connections in partnership with the CEC in addressing the intent of the Whole-House Energy and Labeling program. BayREN cites the intent from the programs enabling statute in the Public Resources code to "(8) Coordinate with, and avoid duplication of, existing proceedings of the Public Utilities Commission and programs…" BayREN urges the CEC to not hamper existing market activity which is successfully paving the way towards state energy efficiency, climate action, and

[10] https://www.aceee.org/research-report/b2204

greenhouse gas emission reduction goals by excluding/stalling programs and tools outside of the CEC's development.

We encourage the CEC to first consider established home assessment protocols and software tools that are consistent with National Standards (e.g. BPI, HERS). This enables assessor/contractor credentialing to be streamlined if they want to work on State, Federal or rate-payer funded programs. It also enables participants access to other Federal funding such as Investment Tax Credits and IRA Home Energy Rebates in combination with rate-payer incentives.

- **Alignment with Federal and State Rebates.** Home Energy Score is referenced as a helpful tool in the IRA rebate programs, tax credits, and the Infrastructure Investment and Jobs Act, including the following:

In 2023, the DOE Office of State and Community Energy Programs (SCEP) released a sample application and guidance[11] to help state and territorial energy offices develop applications for their Home Efficiency Rebates program under the Inflation Reduction Act's Home Energy Rebates. While these documents are not requirements, they are meant to serve as a model and aid. Home Energy Score is referenced in several sample responses throughout the document, including sections on home assessments and calculating modeled energy savings. For example, on page 37 which provides sample language for the home assessments required as part of the Home Energy Rebate program, the sample application reads:

> "The home assessment protocol for single family modeled and measured energy savings projects will adhere to requirements of BPI 1100/1200 home assessment standards. All assessments will feed data into modeling software approved by DOE. Given that BPI 1100/1200 already encompasses most of the data required to generate a Home Energy Score (e.g., data on all major energy systems, envelope conditions (attic and wall insulation; windows; placement of ducts; level of air sealing & duct sealing), assessment tools will be required to concurrently generate a Home Energy Score model and recommendations, as

[11] https://www.energy.gov/sites/default/files/2023-12/Home-Efficiency-Rebates-Sample-Application.pdf

well as a Home Energy Score for integration into the project certificate…"[12] (emphasis added)

The federal government acknowledges the usefulness of the Home Energy Score and the benefit of a nationally recognized score in creating program consistency. These benefits should not be overlooked when considering what kind of energy labeling is most appropriate for California.

Home Energy Score is also referenced as a suggestion to include the Market Transformation Plans[13] required of Program Administrators of the IRA Home Energy Rebate funds. With the advent of the new Investment Tax Credit (ITC), one key aspect for the Commission to consider is the compatibility of this docket's tools with federally approved software tools. Although the tools do not need to be identical, they need to be interoperable to achieve the greatest impact, at the lowest cost, with the least customer and industry confusion. The US Department of Energy maintains the approved software list[14] for ITC tools, which is validated by RESNET's "Procedures for Certifying Residential Energy Efficiency Tax Credits." EnergyPro is one of those tools and is leveraged in tandem with the DOE Home Energy Score to deliver programs across California under the auspices of the CPUC and efforts are being made to allow Home Energy Score to be a pathway for this tax credit.

Home Energy Score is also referenced throughout the Energy Efficiency Revolving Loan Fund Capitalization Grant Program (EE RLF Program) – Infrastructure Investment and Jobs Act Section 40502 Frequently Asked Questions for RLF Program Implementation as a pathway for qualifying for funds.[15]

4. How specific and accurate do home energy ratings need to be?

---

[12] Ibid footnote 11

[13] https://www.energy.gov/scep/slsc/home-energy-rebate-program/using-home-energy-rebates-support-market-transformation#:~:text=Home%20Energy%20Score%20%E2%84%A2%3A%20A,report%20for%20their%20improved%20home.

[14] https://www.energy.gov/eere/buildings/doe-approved-software-2022-and-earlier

[15] https://www.energy.gov/sites/default/files/2023-12/RLF_FAQs_12-20-23.pdf

The specificity and accuracy of the ratings must be of the nature that gives the rater confidence to present retrofit options to the resident, and, secondly, compelling enough to convert a rating to a retrofit. Attempting to provide a resident energy and bill savings marketed as highly precise undoubtedly carries uncertainty and risk for contractors and program implementers. Exact numbers for energy or bill savings rarely match the measured outcomes, no matter how close the estimates are, or how accurate the tools may be, simply because there are so many variables between the home, climate, energy rates, and user behavior. Therefore, we believe that the accuracy of the data collected is of higher importance than predicted energy and bill figures. In-home data collected under a rigorous Quality Assurance process is the best way to ensure accuracy, especially for existing buildings where parcel information or building permit data may be unavailable or inaccurate. For this reason, BayREN does not recommend self-assessments or virtual assessments based on incomplete or inaccurate publicly-accessible information as this greatly increases the chances of inaccuracies in both the rating and the options for a homeowner or other individuals to make upgrades. There are tools coming into the market that allow for virtual assessment that can still collect all measurements and in-home data via an app used by the homeowner. Depending on the development of these tools and the interest of the general public in conducting such an assessment, they could provide an acceptable alternative, presumably with some level of professional/programmatic review or oversight.

While the accuracy of the data collected is of utmost importance to produce a meaningful label that includes recommendations for improvements and relative estimates of energy consumption, one must be cautious not to focus too heavily on the accuracy of predicting utility bills. A home label works best as a “miles per gallon” rating for a home and not as a predictor of utility bills since actual usage depends significantly on occupancy, behavior, and when energy is used throughout the day due to time of use rates. A significant amount of time may be spent to try to increase this accuracy with a diminishing return on the quality and influence of the data provided to a resident learning about their home in the interest of motivating upgrades to be made. For example, almost no car performs at the exact miles per gallon it is marketed and sold at. The actual fuel consumption depends on the weight of people and cargo, whether there is traffic, highway vs. local miles, etc. However, these labels are helpful in shopping for an efficient car and understanding potential tradeoffs. It can also be a useful yardstick to understand behavior and adjust accordingly. If drivers are getting worse mileage- why and what can be done differently? Home labels should be considered a similar tool that provides information that aids in decision-making and not solely an energy model.

BayREN believes that a confident assessment of the right measures and an order of magnitude precision of retrofit impacts would result in the greatest movement towards decarbonization, as opposed to an extreme level of rigor at the expense of tools that are complicated, inflate the price of assessments, and may ultimately result in similar decarbonization outcomes.

7. There are many different rating scale systems that could be used (e.g., 1 through 10, 1 through 100, grades A, B, C, etc.). Should a scaling system be considered? If so, what scale and labeling system should California's home energy rating and labeling services learn from and why?

A scaling system should be used and ideally, one that is intuitive to homeowners (such as a higher number or an "A" being the best option) and simple (avoiding very large scales or ones that go into negatives). In the ACEEE studies referenced in the response to 1(e) above, several different metrics were tested for displaying energy efficiency and comparative options were more convincing than dollar figures. In the recommendations for policymakers, found on page vii of the Energy Efficiency in Real Estate Listings report, it states:

> "Use an intuitive energy scoring system to present energy information. We used the U.S. Department of Energy's Home Energy Score (HES) system, which is a more accurate measure of efficiency than a home's energy costs. The score persuaded home buyers to click on efficient homes, and worked especially well when it was presented along a continuum from inefficient to efficient. Home buyers' decisions were influenced by the score regardless of their familiarity with it, suggesting that it was intuitively understandable."[16]

BayREN recommends that if a score or scale is being considered for use under this rulemaking that is not currently used in an existing program, that focus groups or market research be done to establish that the scale is intuitive and meets the program's objectives.

[16] https://www.aceee.org/research-report/b2002

8. How can California's home energy rating and labeling services rate both newly constructed dwellings as well as additions and alterations to existing dwellings on the same rating scale?

New construction and existing buildings are very different in terms of their baseline energy features and the strategies needed to improve the building. According to the American Community Survey 2022 5-Year Estimates, the median year a housing structure was built is 1977 for the State of California—one year before the State energy code was adopted. In certain jurisdictions, the proportion of older housing originally built with little to no energy efficiency features is much higher. For example, in Alameda County, the median year a housing structure was built is 1969. Therefore, BayREN encourages the CEC to take a fresh approach and not apply the same logic as the HERS program to voluntary existing building labeling.

New construction homes are built to the stringent standards in Title 24 Part 6, while existing building conditions vary based on the vintage of the home and what version, if any, of the building code it was constructed under, as well as whether or not the home has had any renovations. Some renovations will not result in any energy improvements, such as many cosmetic upgrades, while others will trigger energy code improvements for particular features, such as insulating a new addition or replacing a heating source with a new model. However, even in those cases, many features of the home will still be below the energy code overall. These "below code" improvements are important to acknowledge and give credit for in an energy label. While the US DOE Home Energy Score can be used for both new construction and existing buildings, it was specifically created for existing homes and therefore acknowledges that each existing home is starting at a unique baseline. It compares a home to the national housing stock and how that individual home's efficiency may be improved based on its existing features instead of the code baseline. However, it should be noted that the score can be used for new construction and many new homes are labeled in Portland, Oregon, at their time of sale under their Home Energy Score mandate.[17]

As such, BayREN applauds the suggestion in the RFI document that the Mandatory HERS program be separated from the voluntary whole house program as strategies deployed for the new construction sector do not neatly carry over

[17] https://www.pdxhes.com/

when trying to motivate homeowners to make upgrades in existing buildings. There are fundamental differences between mandatory programs, primarily applicable for new construction, and voluntary labeling of existing buildings. "In response to this directive, the CEC created the California HERS Program in Title 20 of the California Code of Regulations, which includes two subprograms. The first is the voluntary whole-house program, as called for in PRC § 25942. The second subprogram is the mandatory field verification and diagnostic testing (FV&DT) program, which is being proposed for removal from Title 20 and relocation to Title 24 under a separate proceeding to allow the CEC to better implement, manage and improve both programs independently."

9. How can the CEC encourage adoption and use of a voluntary home energy rating and labeling services?

Given a long history of analyzing customer adoption in CPUC programs, the notion of the Bass theory of diffusion is helpful in understanding customer adoption. This theory states that an innovation is communicated through a network over time. It measures the amount and pace of adoption of an innovation. A voluntary home energy rating and labeling service must provide a 'good value' to the resident. Given our answers to questions #3 and #4, the services must be accessible, simple, understandable, actionable, and affordable. In order for an initial critical mass to realize value from home energy rating and labeling services, the Commission is advised to align this docket with the anticipated eight years of CPUC ratepayer programs that include the DOE Home Energy Score and supporting technical assistance, incentives, and rebates that come with such programs.

10. How can the CEC ensure the benefits of home energy rating and labeling services are equitably distributed to California's low-income and disadvantaged communities?

The Home Energy Score Report within Green Labeling includes the score, estimated utility bills, energy consumption, and GHG emissions, as well as custom recommendations to improve EE and referrals to the BayREN Home+ program. As a Market Support program, Assessors are eligible for a small rebate for each score performed to increase awareness and adoption of Green Labeling. The program addresses consumer protections and systemic inequities in the real estate sector by providing easy-to-understand information to customers who need it most. It should also be recognized that low energy consumption may be a reflection of the inability to pay bills and not from living in an energy efficient home. For this reason, a Home

Energy Score is the tool of choice that does not over-rely on energy consumption as the driving logic for retrofit opportunities. An asset evaluation, such as the Home Energy Score, can help tease out efficiency that is the result of the home itself versus behavioral, which can therefore help guide homeowners to make more informed purchase, rental, and upgrade decisions. The report is also tailored to include an electrification checklist and utilizes contractors that are qualified to provide in-language support to the recipients of the report, which BayREN has found helpful in ensuring benefits are accessible to a broader audience.

11. Should California's home energy rating and labeling services provide a process for accepting other third-party rating systems to be recognized by the CEC? How could this be technically achieved considering programmatic differences?

The market for energy labeling has drastically changed since Public Resources Code (PRC) § 25942 was adopted in 1994. At that time there were few, if any, home energy labels. However, now there are many certifications used in California, nationally, and internationally including DOE's Home Energy Score, USGBC's LEED for Homes, HERS, Pearl Certification, Green Point Rated, Living Building Challenge, Passive House, and more. These ratings cover various aspects of a home and/or buildings in general. Some are focused on energy, while others include water, transportation, indoor air quality, and more. They also have many different audiences including builders, architects, homeowners, and real estate agents, who possess varying levels of knowledge of the technicalities of buildings and energy. Therefore, finding a one-size-fits-all label is a significant challenge.

BayREN is confident that the CEC is well-equipped to develop a minimum set of standards that energy labels must include in the state, as well as required report elements, such as metrics, a scale, and upgrade information. This would uphold the quality and consistency of energy labels in California but would also allow for customization to communicate effectively to various stakeholders. For example, in the BayREN program, some Assessors provide the Home Energy Score in addition to a more comprehensive energy audit that includes diagnostic testing if that level of information is desirable to the client. In some cases, this is done using a third-party data collection software tool that has been certified and approved to transmit data to DOE via API in order to return a Home Energy Score label that can be integrated into the more comprehensive energy audit report. Many scores in the Bay Area are also done in concert with a HERS rating and the flexibility of the

program is one of its strengths, while the Home Energy Score information remains standardized and consistent, regardless of delivery pathway.

A minimum set of standards versus a "one-size-fits-all" approach also allows for innovation. However, a minimum standard should NOT include the *requirement* to include energy consumption data. As stated in the response to question 10, low energy use is not always a reflection of an efficient home. It may reflect the inability to pay energy bills and a high tolerance for thermal *discomfort*.

The BayREN Home Energy Score program has won two Home Energy Score Partner innovation awards from the DOE—one for scaling a voluntary program and the other for our efforts to build upon the score through the launch of the Electrification Checklist, an addendum to the score that includes information related to the home's electrification potential. This is an example of how the Home Energy Score and report can be customized to help meet the goals of specific states or jurisdictions. In this regard, there are admittedly improvements to the DOE tool which would make it even more beneficial for use in the California context. BayREN has been working with the DOE on this front for years and has a repository of items that the DOE is working towards, including electrification, California-specific source energy factors, and time-of-use rates and emissions. BayREN urges the CEC to work with the DOE to this end rather than using public funding to re-create duplicate systems.

13. What level of quality assurance is warranted for voluntary home energy rating and labeling services in California?

Quality assurance (QA) in the energy labeling field is very important. Homeowners should be receiving accurate information about their homes without bias. For example, one would want to prevent energy assessments from presenting the worst case scenarios to homeowners in order to upsell them on improvements that are not needed or may not make sense for the home. Ideally the energy label is neutral and presented as fact-based information versus a sales tool. As accurate, site-specific information about the existing home conditions is also critical, it is important that the entire home is evaluated. For example, relevant duct and equipment information should not be assumed or skipped over if they are in a crawl space without easy access. The DOE Home Energy Score requires a 5% QA where homes must be rescored (remotely or in the field). If the score has more than a one-point difference, it is returned for corrections. This process reduces bias and maintains quality—when a score is returned for corrections, Assessors can

learn from their mistakes and improve their process in future assessments. This helps to assure a customer that no matter who conducted their score, they would receive the same, accurate information about their existing home conditions. BayREN strongly recommends that the set of standards chosen by the CEC includes a clear and consistent QA requirement.

16. What organizations or stakeholder groups should be made aware and invited to participate in the home energy rating and labeling proceeding?

BayREN recommends that the following stakeholders be invited to participate in the proceeding:

- Local jurisdictions with ordinances referencing Home Energy Score (as of 2023, these are the cities of Berkeley, Piedmont, Carlsbad, Encinitas, and Chula Vista).
- Bay Area jurisdictions who currently have access to the Home Energy Score program through BayREN.
- Current and potential workforce for energy ratings, including Home Energy Score Assessors, HERS raters, home inspectors, and energy audit specialists.
- The US DOE Home Energy Score staff, national labs, and active Home Energy Score partners in California (most prominently StopWaste/BayREN, Earth Advantage, and Franklin Energy).

Conclusion

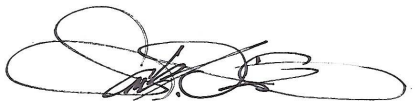
BayREN encourages the CEC to work with existing programs, especially the DOE, to determine a co-existence of national and California-specific standards to work in the market. There are many benefits to using a nationally established standard and tool:

- supports local government policies that have existed since 2015 on the disclosure of energy information and existing building reach codes;
- recognized by national lenders;
- recognized by the IRA programs;
- is simple and low-cost to generate and intuitive for consumers to understand.

BayREN respectfully submits these comments based upon our experiences implementing programs and applauds the CEC's intent to provide meaningful engagement in the development of the Home Energy Rating and Labeling program.

BayREN commends the CEC in launching an ambitious, flexible, achievable, and expeditious program that leverages California's existing and new investments in climate equity.

Sincerely,



Jane M. Elias
Director, Energy Section
Bay Area Regional Energy Network