

*Comment Received From: BayREN  
Submitted On: 5/19/2024  
Docket Number: 23-HERS-02*

**BayREN Comment Regarding CEC Whole House Home Energy Rating and Labeling Pre-Rulemaking workshop #1**

*Additional submitted attachment is included below.*



May 17, 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](mailto:docket@energy.ca.gov)

Re: BayREN Comment Regarding CEC Whole House Home Energy Rating and Labeling Pre-Rulemaking

Dear Commissioner McAllister and CEC Staff,

We appreciate the CEC hosting the Home Energy Rating and Labeling Pre-Rulemaking workshop on April 30, 2024. Commissioner McAllister's comment that the label should be simple, clear, pervasive, and standardized for new and existing buildings especially resonated with Bay Area Regional Energy Network's (BayREN) experience of advancing and promoting home labeling in the Bay Area. We look forward to continuing to follow the rulemaking process and participating in future stakeholder meetings.

During the presentation by Cynthia Adams, Pearl Certification CEO ("the Presenter"), a sample Home Energy Score (HES) report from Bend, Oregon was shown and the Presenter pointed out several aspects of the score that she perceived to be confusing for realtors, including the fact that the HES score of 7 was above average while the carbon emissions looked to be below average and that the "score today" and the "score with priority improvements" on the report were the same. The claim was that the HES report was confusing for realtors and hard to explain to homeowners and had therefore not contributed to transforming the market. However, the HES report used in the presentation is not representative of the HES report currently being used in California. The Presenter's broader claims about the ineffectiveness of HES programs may represent the views of Pearl Certification and some members of the real estate community, but we believe they lack context that

is important to understanding how HES works in California. We would like to clarify some of this context here.

BayREN has been managing a regional HES program throughout the Bay Area since 2018 and conducted pilots on HES with the US Department of Energy (DOE) since 2014. More than 20,000 scores have been approved to date in the Bay Area. BayREN has also supported the cities of Berkeley and Piedmont in establishing mandatory disclosure policies using HES. Throughout the program's history, we have worked closely with the US DOE and its implementing partners to update and customize the BayREN version of the HES report (see attached sample HES report). Some of these customizations include:

- altering the carbon emissions graphic (which was featured in the report shared by the Presenter) to distinguish between the estimated carbon footprint of the home across three scenarios: today (with no changes), with shell improvements, and with full electrification;
- reducing the amount of text on the first page to keep it as simple as possible for homeowners to understand;
- including more details and qualifications on the datapoints displayed on the report in footnotes (e.g. clarifying what is meant by the estimate of current yearly energy costs and what is considered a shell versus home electrification improvement);
- and incorporating recommendations for full home electrification into the HES report (e.g. installing heat pump water heaters and HVAC systems and induction cooking appliances).

In the 10 years that BayREN has been working on HES, we have not heard from HES Assessors or realtors that the HES report is confusing or difficult to communicate to homeowners. In fact, the HES was initially selected by the City of Berkeley for inclusion in their ordinance for its simplicity. Additionally, it is important to highlight that the HES report is customizable. Therefore, using a sample report from Bend, OR does not accurately reflect the years of improvements made to the report to better align with the market conditions and goals of the State of California.

An important benefit of HES is that it is a nationally-recognized home energy label—more than 230,000 scores have been administered across the United States to date and the US DOE has 27 active partnerships with implementers that serve every state in the country. As mentioned in the response prepared by BayREN to the CEC's Request for Information on this rulemaking, HES has been studied extensively by groups such as the American Council for an Energy-Efficient

Economy (ACEEE) and Lawrence Berkeley National Laboratory (LBNL) who have found that the HES can have an affect on home prices, mortgage default rates, and the decision-making of homebuyers and renters.

As BayREN's HES program expands statewide, we will continue to work closely with the US DOE—as well as state entities like the CEC and CPUC—to make further customizations to the HES California report to ensure that it is aligned with California's residential sector energy goals. Local jurisdictions that are interested in further customizing HES reports to highlight programs and resources that are available in their service areas will have the opportunity to do so.

We are happy to answer any questions that CEC staff have regarding the HES tool or report customization capability for the California context.

Thank you for your time.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jane M. Elias', with a stylized, cursive script.

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

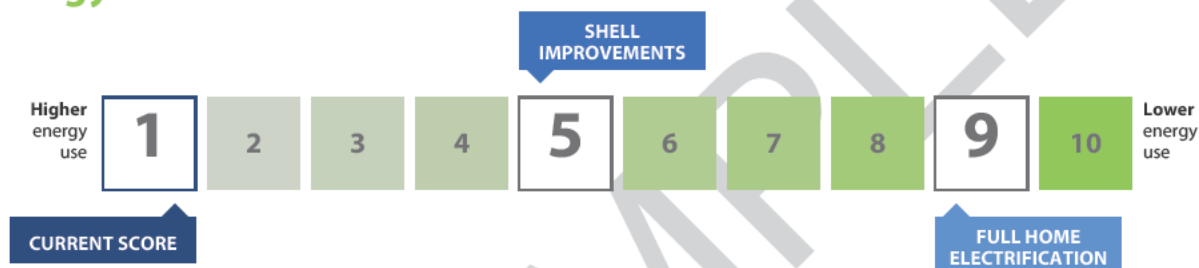
# Home Energy Score Energy Savings Pathway Report



**LOCATION:** [REDACTED] San Francisco, CA, 94116      **YEAR BUILT:** 1936      **BEDROOMS:** 5  
**HEATED FLOOR AREA:** 4,068 sq.ft.      **ASSESSMENT DATE:** 02/28/2024      **ASSESSOR:** [REDACTED]  
**COMPANY:** Earth Advantage      **PHONE:** [REDACTED]      **EMAIL:** [REDACTED]

<p>Current Score</p> <p><b>1</b></p> <p>OUT OF 10</p> <p>Estimate of Current Yearly Energy Costs<sup>3</sup></p> <p><b>\$6,046</b></p>	<p>Recommended Shell Improvements<sup>1</sup></p> <p><b>5</b></p> <p>OUT OF 10</p> <p>Estimate of Energy Costs with Shell Improvements</p> <p><b>\$4,566</b></p>	<p>Full Home Electrification<sup>2</sup></p> <p><b>9</b></p> <p>OUT OF 10</p> <p>Estimate of Energy Costs with Electrification</p> <p><b>\$4,387</b></p>
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## Home Energy Score Details



Official Assessment: ID# 506786

Average U.S. Home's Score = 5

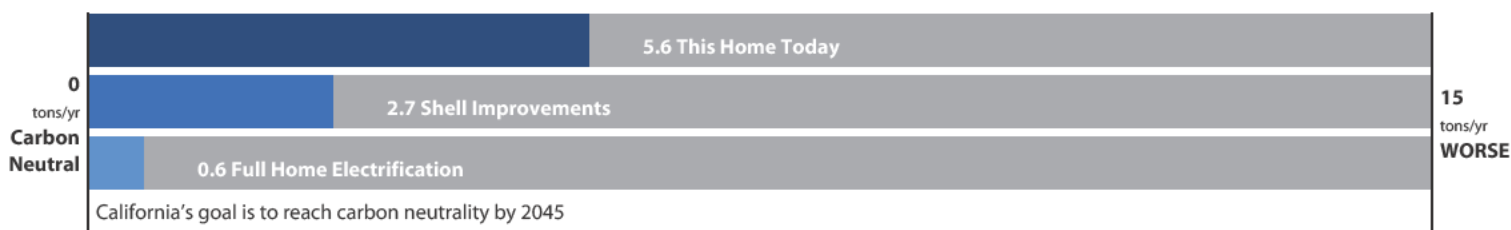
The U.S. Department of Energy's Home Energy Score assesses the energy efficiency of a home based on its structure and heating, cooling and hot water systems. Learn more at [HomeEnergyScore.gov](https://HomeEnergyScore.gov).

## Current Estimated Energy Use By Fuel Type<sup>3</sup>

Fuel Type	Estimated Current Use	After Shell Improvements	After Full Electrification
<b>Electric:</b> 11,912 kWh/yr (\$0.31/kWh)	\$3,693	\$3,524	\$4,387
<b>Natural Gas:</b> 0 therms/yr (\$2.37/therm)	\$0	\$0	\$0
<b>Other:</b> (Propane)	\$2,353	\$1,042	\$0
<b>Renewable Generation:</b> (\$0.31/kWh)	N/A	N/A	N/A
<b>TOTAL ESTIMATED YEARLY ENERGY COSTS</b>	<b>\$6,046</b>	<b>\$4,566</b>	<b>\$4,387</b>

## This Home's Carbon Footprint<sup>4</sup>

Carbon footprint by fuel type (measured in Metric tons of CO<sub>2</sub>): Electric: 0.5 Other: 5.1



# Tackle energy waste today!

- Get your home energy assessment. Done!
- Choose energy improvements from the list of recommendations below.
- Select a contractor (or two, for comparison) and obtain bids.
- Perform upgrades and enjoy a more comfortable and energy efficient home.

Current Score

# 1

OUT OF 10

## For More Information Visit the Websites Below

BayREN Homeowner Info



[bayren.org/homeowners](http://bayren.org/homeowners)

State Information



[energy.ca.gov](http://energy.ca.gov)

US Rebates & Tax Credits



[energy.gov/save](http://energy.gov/save)

Incentive Information



[incentives.switchison.org](http://incentives.switchison.org)

## Energy Improvements Customized for Your Home

### SHELL IMPROVEMENTS<sup>1</sup>

FEATURE	TODAY'S CONDITION	RECOMMENDED IMPROVEMENTS
Envelope/Air sealing	Not professionally air sealed	Professionally air seal
Attic insulation	Ceiling insulated to R-19	No recommendation
Cathedral Ceiling/Roof	Roof insulated to R-0	Insulate R-30 or maximum possible
Knee Wall insulation	Knee wall insulated to R-0	Insulate to R-15 or higher
Skylights	Double-pane	No recommendation
Windows	Multiple types	Upgrade to double-pane or other high-efficiency windows
Wall insulation	Multiple levels	Insulate to R-13 or higher
Duct sealing	Un-sealed	Reduce leakage to a maximum of 5% of total airflow
Duct insulation	Insulated	No recommendation

### FULL HOME ELECTRIFICATION IMPROVEMENTS<sup>2</sup>

FEATURE	TODAY'S CONDITION	RECOMMENDED IMPROVEMENTS
Heating equipment	LPG furnace 80% AFUE	Upgrade to Electric Heat Pump, minimum 9.4 HSPF
Air Conditioner	13 SEER	Upgrade to Electric Heat Pump, minimum 17 SEER
Water Heater	LPG on demand EF 0.95	Replace with heat pump hot water heater
Solar PV	None installed	Consider solar PV
Electrical Panel	1234Amps	No recommendation
Appliances: Induction Cooking	No Range / Electric Cooktop	No recommendation
Appliances: Heat Pump Dryer	Electric Dryer	No recommendation

<sup>1</sup> Shell Improvements correspond to recommendations that should be first steps in upgrading your home, including air sealing, insulation, duct sealing, etc. This estimate is calculated based on your current heating and cooling systems.

<sup>2</sup> Full home electrification requires the removal of any fossil fuels from the home such as gas or wood burning. Calculations assume shell improvements are made and include heating and cooling recommendations. These upgrades can be made over time as equipment nears its end of life. Your actual energy use and costs may vary based on occupant behavior and other factors.

<sup>3</sup> Energy savings calculations are estimates only and based on data collected by the assessor and modeled in the Home Energy Score tool. Calculations assume shell improvements are made and all fossil fuel equipment is changed to high-efficiency electric options. Estimated energy costs were calculated based on average utility prices for the nine Bay Area Counties (\$0.31/kwh for electricity; \$2.37/therm for natural gas; \$2.67/gal for propane; \$4.07/gal for fuel oil).

<sup>4</sup> Your carbon footprint is based only on estimated home energy use. Carbon emissions are estimated based on utility and fuel-specific emissions factors provided by the California Public Utilities Commission. Your carbon footprint may be lower if you get your electricity through a Community Choice Aggregator (CCA) provider. For more information visit [Cal-CCA.org](http://Cal-CCA.org).

**Additional Comments and Recommendations:**

Empty rectangular box for additional comments and recommendations.

SAMPLE