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Home Energy Ratings: 15 Questions Homeowners Are Asking (And How to Answer Them)

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Introduction

When it comes to assigning ratings to houses, homeowners are understandably skeptical and have many questions. We've written previously about how home energy ratings are necessary for a market decarbonization strategy – but what happens once ratings are out in the market? Anticipating the homeowners' concerns is crucial for launching an impactful and inclusive home energy labeling and disclosure program.

In this article, we'll discuss some of the most common questions and concerns homeowners have about home energy ratings, carbon scoring, and building labeling. Program managers should consider addressing these concerns in their program messaging and have the answers close at hand. This will allow homeowners to worry less about the details and more about taking action to reduce their home's energy use and emissions. Sources accessed for this article include third-party consumer research, FAQ databases from public home energy labeling programs, and Climative's experience with jurisdictions launching such programs.

Homeowner concerns follow four themes:

If you aren't familiar with home energy labeling and disclosure programs, read this article first.

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Homeowners Want to Understand Their Home Energy Ratings

When a number is assigned to someone's home, especially if they're being compared to their neighbors, homeowners want to understand how the number was calculated. Most homeowners don't need to know every input and output of the building energy model, but they tend to ask similar questions across markets, and program managers should have the answers close at hand.

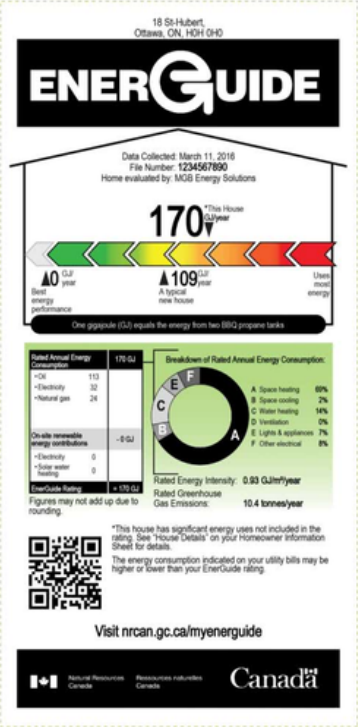
What does the home energy rating mean?

The first thing homeowners want to know when they get their home's energy or emissions rating is what it means. It's important to briefly and honestly explain the basics of the methodology: what does the scale represent? What is the home being compared against, if anything? What unit does the number reflect?

For example, the US Department of Energy's Home Energy Score(TM) uses a 1-10 scale, where 10 represents the most energy-efficient homes in the 90th percentile and above. The DoE published a very helpful fact sheet explaining the score and methodology.

The UK's National Home Energy Rating Scheme (NHER) uses a 0-20 scale, with 20 being the best. A home rated 20 has zero emissions, while 0 is the lowest-performing home in the region.

In Canada, the NRCan EnerGuide rating shows the number of gigajoules (GJ) per year on a red-green scale. Far-green (or 0 GJ) is a high-performing net zero home, and far-red is the worst-performing home in the country. It also provides a reference" new home" to give homeowners an understanding of their ideal score and a breakdown of consumed energy to communicate which activities have the biggest contribution and impact on the score.



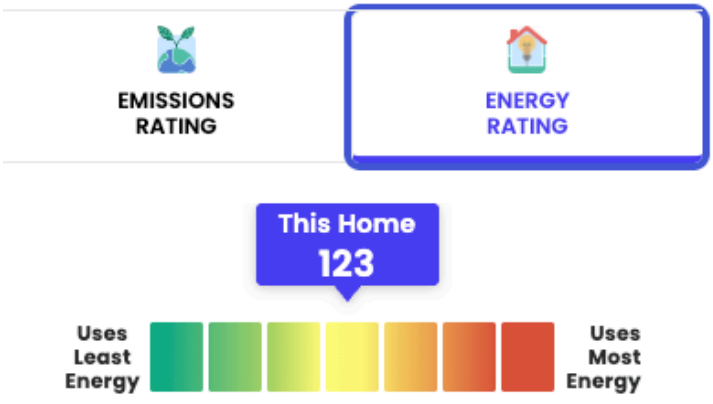
By helping homeowners understand the numbers on their labels, you can address their biggest objections and begin a transparent conversation about the details.

How was the home energy or emissions rating determined?

Program managers can earn the trust of homeowners by explaining the information and methodology used to determine their home energy rating. While it is not essential to dig into the intricate details of the energy modeling software, simply describe the factors that were considered and the approach used to do the calculation.

For example, the RESNET HERS Index involves a home rater visiting a home, analyzing energy with a highly detailed physics-based building energy model, and often performing a blower door test. The Index considers many building features, including exterior wall details, basement and crawlspace details, ceiling and roof construction, window types, doors, HVAC systems, and more.

Climative's touchless home energy assessment is determined using an AI model trained using the results of 600,000+ on-site home energy assessments. The model uses basic building structure information in tax assessment or real estate databases, weather data, and regional energy costing data.



How accurate are home energy ratings?

If the question of "accuracy" isn't addressed upfront, program managers might find that public discussion can zero in on the issue rather than focus on the benefits and goals of the program. There are five approaches to address this:

1. Be transparent about the scope and limitations of the home rating methodology.
2. Talk about the difference between "**asset-based**" and "**operational-based**" ratings. Home energy ratings are typically asset-based, meaning they consider only the home's physical state and not its owners' energy use habits. Labels should be asset-based because they allow homes to be compared fairly, unaffected by the occupants' behavior.
3. Be clear about how the homeowner should use the home energy rating and recommendations. Include caveats such as: These retrofit recommendations are intended for educational purposes only. Always speak to a building professional before investing in energy efficiency upgrades.
4. Provide options to improve the accuracy and relevancy of the score. In the Climative platform, homeowners can fill in a questionnaire, add energy bills, and even upload the results of an on-site home energy assessment.
5. If necessary, divulge the rating's accuracy and what it's being compared to. For example, Climative's AI-powered touchless assessment is around 80% accurate compared to an on-site home energy assessment.

	Asset-Based Home Energy Assessment	Operational-Based Home Energy Assessment
Car analogy	Miles per gallon sticker on a car	Calculating actual miles per gallon at every fill-up
Data used for analysis	Based on standard operation conditions: building structure data, location, weather data	Based on household operating conditions: energy bill data and/or meter data
Objective	To help homeowners identify deep energy retrofit opportunities and guide them towards achieving net-zero emissions.	To help homeowners understand their energy consumption and take action through behavioral changes.
Energy Insights	Home energy rating, carbon footprint, energy breakdown, retrofit recommendations, potential savings and costs, carbon reduction opportunities, and more.	Energy Consumption breakdown by heating, cooling, hot water and major appliances and suggested actions.
Typical savings potential	20 – 50% of current energy consumption	1 – 3% of current energy consumption
Use cases	Pre-evaluation of financial incentives, pre-determine project ROI, deep energy retrofit program design and delivery.	Encouraging changes in user behavior to conserve energy
Supported by Climative	Yes	Yes

What is the breakdown of energy use in my home?

Most popular home energy ratings include an energy use breakdown: an estimate of the energy use in categories such as space heating, space cooling, water heating, and appliance & lighting. This extra information helps homeowners further understand what factors in their homes contributed to their rating.

Homeowners Want to Understand How Their Home Energy Rating Impacts Their Home

Although home energy rating programs have been around for decades, their impact is still being studied and understood. Homeowners are often nervous about what these ratings mean for their home and family, particularly their home's value, property taxes, insurance, and mortgage rates. Program managers can help alleviate this anxiety by assuring citizens that these issues are also at the top of mind for you and your colleagues. Address the questions, give them some context, and direct them to reputable sources to conduct their research.

How can a home energy rating save money on utilities?

A home energy rating doesn't directly affect a homeowner's bills, but it can tell people how to considerably reduce heating, cooling, and electricity expenses by implementing targeted home retrofits. This can include more significant changes to heating systems, small changes like installing energy-efficient appliances, and retrofits to the building envelope to improve insulation. Adding these up, a homeowner can achieve significant savings over time.

Can a home energy rating impact home insurance or mortgage rates?

Financial institutions are increasingly recognizing energy efficiency as a value indicator. Some banks provide "green" mortgage and loan solutions to homeowners who wish to implement energy retrofits and achieve more desirable energy ratings and carbon reduction objectives. Energy-efficient improvements and green certifications can increase a property's appeal to lenders and insurers. As home efficiency aligns with lower climate risk, we might see better terms and cheaper premiums from insurance companies in the future.

How do home energy ratings impact the resale value of residential real estate?

While labels alone don't strongly affect home values, higher efficiency homes fetch higher market values (3-5%) and appeal more to environmentally aware buyers. Home energy ratings can help sellers be more open and honest about their home's cost of operation and areas for improvement and communicate how already installed retrofits affect these costs. When disclosed at the time of sale, along with energy bills, ratings are a good accompaniment that removes the seller's usage patterns and habits from the equation and provides a fairer assessment of the home's energy performance.

How might a home energy rating impact my property taxes?

Currently, no research directly ties home energy ratings to property taxes. However, many studies correlate home energy ratings to related factors such as sale price. Program managers should assure homeowners that tax assessments are determined using a different methodology and by different organizations than those responsible for home energy ratings. In regions where property tax assessment data is used to generate home energy ratings, homeowners should be made aware of how their data might be shared with assessment organizations.

How might a favorable home energy rating impact health and comfort?

Home energy ratings and reports increase awareness of the benefits of energy efficiency. Better insulation, better air tightness, and energy-efficient ventilation systems are standard in energy-efficient homes. These enhance indoor air quality by ensuring adequate air changeover, controlling moisture, reducing the load on heating systems, and controlling the entry of drafts around windows and doors. Sufficient air quality can lessen the likelihood of allergies and respiratory problems, and stable temperatures can improve general comfort and health.

Homeowners Want to Know Their Personal Information Is Protected

Homeowners are concerned about data privacy when it comes to home energy ratings, especially for mandatory disclosure programs. Program managers can earn citizens' trust by clearly and transparently answering the top three questions homeowners have. Let's discuss how program managers might address these questions.

Where does the data for home energy ratings come from?

This question is essential for mandatory labeling programs where energy ratings are calculated without initial input from the homeowner (such as no-touch home energy assessments). Program managers must assure homeowners their privacy is not breached or vulnerable. Touchless assessment methods that use AI or statistical analysis typically calculate ratings using only publicly or commercially available information, such as tax assessment databases, weather data, and regional energy costs.

Who can see my home energy rating and report?

In any home rating program, homeowners must be explicitly informed about who can view their ratings and the details of their reports. In many cases, ratings are not public. Typically, the documents about each home are only shared with potential buyers and possibly lenders, insurers, or building professionals, as needed, with consent from the homeowner.

Some virtual building labeling programs publish ratings to the public, but this is usually done with homeowner consent. This allows homeowners to see their homes in the context of their neighborhood and learn more about the size of the building problem and the opportunities in their community. Again, program managers should be very transparent about which stakeholders can access which information and allow homeowners to opt out of certain types of disclosure.

How is private home data being protected?

Under privacy laws, information about a physical structure is not deemed personal information and is not subject to the same legislation that protects personal identifying and contact information. It is important to draw this distinction and reassure homeowners about the intended uses for each type of information.

As with any program that deals with citizens' private information, program managers are advised to make it easy for citizens to find information about data protection and to ensure that they collect consent in accordance with privacy laws. This could be as simple as providing links to a privacy policy and/or vendor selection policy or spelling out terms and conditions of use for digital web portals, among other things.

Homeowners Want to Know How to Access Support for Energy Efficiency Upgrades

If decarbonization is the goal, then a home energy rating program is only successful if it leads to energy efficiency upgrades by homeowners. We don't want homeowners' reactions upon receiving their rating and report to be "Now what?" and worse, "So what?". A home energy rating and disclosure program could be more impactful if messaging puts the rating in the context of the retrofit journey and includes valuable resources to help homeowners accomplish those retrofits. Here are some of homeowners' most common concerns when accessing home energy efficiency support.

Is there financial support available to perform energy efficiency retrofits?

Unsurprisingly, financial incentives are a powerful driver for homeowners to undertake energy efficiency upgrades. Therefore, program managers should leverage home energy rating programs to generate demand and streamline application processes for financial incentives. The City of Ottawa, for example, is deploying a virtual retrofit portal that gives all homes a rating, personalized retrofit recommendations, and financial projections that account for retrofit costs, energy bill reductions, carbon tax, and locally available rebates.

How can homeowners speak with an energy efficiency expert to learn more about their home energy rating and report?

For home energy ratings generated without the assistance of a registered energy

advisor, homeowners should be advised to review the rating and recommendations with professionals before making any financial decisions. Many regions offer energy concierge services to simplify this process for homeowners. These services are increasingly available remotely for improved convenience and affordability.

How can homeowners find a qualified or vetted contractor to perform energy efficiency retrofits?

When homeowners are budgeting tens of thousands of dollars for home upgrades, they understandably want a reliable, skilled contractor who respects their goals for their home. Program managers can assist by providing citizens with a resource for vetted contractors available to hire for energy efficiency projects. Program managers could also consider distributing educational material to guide homeowners on researching, vetting, and working with contractors independently.

Putting This Information Info Action: Empowering All Homeowners with Equitable Energy Efficiency Programs

Home energy ratings are not an end in and of themselves; they're a tool to help empower homeowners to take action to improve their homes and achieve net zero emissions. Program managers can leverage ratings to design and deliver inclusive home energy efficiency programs that address common barriers such as home budget constraints, time limitations, location, and access to reliable advice.

Consider reading the Residential Retrofits for Energy Equity Playbook and contact Climative to learn about our 3-pronged approach to launching impactful and equitable energy efficiency programs:

1) **Energy Insights Dashboard:** Access building-level energy/carbon data to understand regional needs & model retrofit impacts. By overlaying income & energy cost data, Climative identifies areas where energy costs exceed 30% of income. This targeted approach helps prioritize retrofits for areas with high potential for energy savings & improved living conditions.

2) **Homeowner Engagement:** Reduce friction in the retrofit journey by providing a low-carbon plan for every home in a web-based platform. Each plan includes an energy/carbon score, retrofit recommendations, financial forecast, & tailored offers. This approach demonstrated 4X engagement in a project with EfficiencyOne.

3) **Remote Assessments:** Connect homeowners with energy efficiency pros in a video platform. Climative enables remote audits, which are more affordable, easy to schedule, & accessible for rural/low-income communities compared to on-site audits. In a project with EOne, remote audits led to 9X program sign-up, 9.5/10 homeowner satisfaction, and were completed 3X faster.

Book a call with the Climative team to start the conversation.

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Questions or Comments?

Winston Morton brings 25 years of experience in the telecommunications and utility industries to his role as Climative's CEO.