



RESIDENTIAL ENERGY+

Together, we hold the key to better homes



INITIATIVE OVERVIEW

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Rocky Mountain Institute's Residential Energy+ initiative is unlocking U.S. homeowner investments in energy efficiency and renewable energy to create better homes for our families, our pocketbooks, and the environment—preventing 23 million metric tons of CO₂ emissions and improving quality of life.

Our homes—emblematic of the American dream and representing the largest investments most of us will ever make—are where we raise our families and spend significant amounts of time. Although they provide us with a lot already, they can deliver so much more. If we invest in energy upgrades, our homes can improve our comfort and health and realize monthly cost savings, enhanced property value, and greenhouse gas emissions reductions.

OPPORTUNITY

The residential energy efficiency market provides one of the greatest opportunities to meaningfully reduce greenhouse gas emissions, lower energy bills, and improve home values.

According to the U.S. Environmental Protection Agency and Department of Energy, residential buildings represent about one-fifth of U.S. greenhouse gas emissions, or the equivalent of approximately 1,300 million metric tons of CO₂ equivalent. In 2012, the market potential for improving energy efficiency in the single-family home segment was roughly \$144 billion, and the annual potential for the reduction of greenhouse gas emissions was over 300 metric tons.

The typical American family spends \$2,200 on energy bills every year. Rising electricity prices and declining family incomes are straining the budgets of lower- and middle-income families. Therefore, it's no surprise that improved energy performance is the top unmet demand in U.S. homes.

BARRIERS

Increasing the rate of adoption of residential energy upgrades is arguably one of the most difficult tasks in the clean energy space. It requires scaling energy performance improvements across the diffuse residential efficiency market at levels necessary to materially contribute to climate change mitigation.

The current supply chain for energy upgrade services is incredibly disaggregated. Approximately 600,000 (or one-eighth) of all U.S. small businesses are construction firms. Decision makers are also incredibly disaggregated, with over 50 million owner-occupied single-family homes spread across diverse regions and income levels.

Plus, there is a lack of customer demand. Although energy efficiency is a top unmet need in homes, the rate of energy upgrades is decreasing. Energy efficiency has a perception problem. Most people aren't searching for it because they think their homes are already energy efficient or because they just don't think it's as smart an investment as cosmetic improvements. Even though efficiency improvements on average add \$12,000 to the value of a home (and solar could add another \$15,000), this value is not yet recognized by the real estate industry or the majority of appraisers.

WHAT WE OFFER

The market transformations we anticipate creating through the Residential Energy+ initiative will lead to energy upgrades in approximately 13 percent of U.S. single-family owner-occupied homes cumulatively by the end of 2020.

We will achieve our goals by collaborating with powerful industry partners in the real estate, financial, design, technology, and marketing industries to produce:

- **Visible value** that institutionalizes energy performance and upgrade value throughout the industry, and makes that value visible to consumers. We are accomplishing this through two anchor projects: **MPG for Homes**, which aims to integrate the full value of energy upgrades into real estate websites; and **Finance the Future**, which aims to make energy performance considerations a requirement in certain mortgage underwriting processes.
- **Ready resources** that ensure that financial and supply-side resources are organized to make quality upgrades convenient and accessible for consumers. We are accomplishing this through our **Scaled Energy Retrofits** project to evolve existing business models to drive mass installation of energy retrofits.

- **A new normal** that leverages mainstream customer channels and behavioral science to make energy performance a desired and aspired-to standard in U.S. homes. This is being accomplished through a **National Engagement Campaign** to transform homeowner demand for energy upgrades.
- **Energy efficiency capacity markets** that value the grid benefits of homes that provide energy services like load reduction and demand response.

By empowering homeowners with the incentives and trusted service provider solutions they want, we will motivate and enable homeowners to invest in high energy-performance homes that deliver greater health, comfort, cost savings, and property value to American families.



About Rocky Mountain Institute

Rocky Mountain Institute (RMI)—an independent nonprofit founded in 1982—transforms global energy use to create a clean, prosperous, and secure low-carbon future. It engages businesses, communities, institutions, and entrepreneurs to accelerate the adoption of market-based solutions that cost-effectively shift from fossil fuels to efficiency and renewables. In 2014, RMI merged with Carbon War Room (CWR), whose business-led market interventions advance a low-carbon economy. The combined organization has offices in Basalt and Boulder, Colorado; New York City; Washington, D.C.; and Beijing.

GET INVOLVED

Join our growing network of partners dedicated to unlocking the U.S. home energy upgrades market.

Learn more at www.rmi.org/residentialenergyplus or contact Nushin Kormi at nkormi@rmi.org