FHFA Should Adopt Home Energy Codes to Cut Utility Bills, Emissions, and Foreclosure Risk

MAY 2024

Many states have energy codes that are badly out of date, and some have no statewide code at all. As a result, most brand new homes across the country are not very energy efficient, leaving homeowners and renters paying high energy bills, living in sometimes uncomfortable temperatures, and more vulnerable to extreme weather.

The **Federal Housing Finance Agency (FHFA)** can improve the efficiency of nearly half the new homes in the country, and reduce credit risk to its mortgage portfolios, by requiring that all newly constructed homes purchased with mortgages that are backed by Fannie Mae or Freddie Mac-meet up-to-date minimum energy codes.

Minimum energy codes for covered homes would:

- Reduce home energy use by up to **one third**, saving each household thousands of dollars over time
- Make homes more healthy, comfortable, and resilient
- Reduce credit risk by minimizing mortgage defaults
- Avoid almost **200 million metric tons of CO_2** cumulatively (the emissions from 44 million cars in a year)
- Add **590,000 jobs**.

Why FHFA?

The federal government directly or indirectly supports the purchase of most homes by buying or guaranteeing their mortgages. Together, **Fannie Mae and Freddie Mac** (the Government Sponsored Enterprises, or GSEs) buy almost half of all mortgages for single-family homes and multifamily buildings. As the conservator and regulator of the GSEs, FHFA has the authority to ensure new homes with their mortgages are efficient.

Though the GSEs currently have no minimum energy efficiency requirements, federal agencies do, including the Department of Housing and Urban Development (HUD) and the U.S. Department of Agriculture (USDA).

Requiring new homes backed by the GSEs to meet minimum energy codes would align them with requirements newly adopted by HUD and USDA (and which the Department of Veterans Affairs also must now adopt), creating consistent, cost-saving requirements for nearly all federally backed mortgages for new homes, and roughly 70% of mortgages for new homes each year.

Among other impacts from climate change, FHFA stakeholders have said that high energy costs have made it difficult for residents to pay their rental or mortgage costs. Minimizing energy costs, and thus lowering energy transition price shocks and mortgage default risk, should be a key piece of FHFA's stated need to address climate risk, and especially to minimize climate impacts on communities that are most vulnerable.

- Adopting minimum codes would reduce risk to the GSEs: research has shown that residents of energy efficient homes are less likely to default on mortgage payments.
- Consistent with FHFA's goals to promote equitable access to affordable and sustainable housing, minimum codes would improve energy affordability and would likely improve health outcomes for all residents, not just those who can afford more costly and cumbersome efficiency retrofits.

How Up-to-Date Codes Improve Energy Efficiency in New Homes

About one quarter of Americans have trouble paying their energy bills, especially lower income households. The FHFA can ensure that nearly half of new homes in the country are built to current model energy codes: the 2021 International Energy Conservation Code (IECC) (for single family and low-rise multifamily) and ANSI/ASHRAE/IES Standard 90.1-2019 (for other multifamily). Homes built to these codes use as much as one-third less energy than homes built to many of the existing state codes.

The energy cost savings come from added insulation in the walls and above the ceiling as well as better air sealing and energy-efficient windows. The systems in homes built to the model energy code are more energy efficient, including better-sealed ducts that waste less heat, and they have more efficient lighting, heating, and cooling that costs less to operate.

Benefits For Residents

- Reduce monthly costs and quickly pay back upfront costs for the efficiency measures, adding up to thousands of dollars in savings over the life of the home
- Improve home quality and comfort
- Support the health of residents by extending the length of time that residents can safely stay in their home during adverse weather events and reducing mold and moisture-induced upper respiratory problems such as asthma
- Lessen vulnerability to impact of fuel price spikes on home heating and cooling costs

Costs and Benefits for 2021 IECC vs. 2009 IECC and ASHRAE 90.1-2019 vs. 90.1-2007

	Annual Energy Savings	Annual Mortgage Increase	Added Upfront Costs	Years to Positive Cash Flow	Net Lifetime Savings
Single Family	$ 963	$ 439	$ 550	1.5	$ 15,071
Low-Rise Multifamily Unit	$ 403	$ 182	$ 229	1.4	$ 6,345
High-Rise Multifamily Unit	$ 224	--	$ 18	<0.1	$ 5,886

For average household nationwide. Upfront costs are comprised of a 5% down payment and other fees. Assumes a 30-year mortgage at 5.3% interest rate. Data from HUD and USDA final determination.

Climate And Economic Benefits

We project the GSEs may buy loans for about 14 million new homes through 2050. Adopting minimum energy requirements would:

- Save residents **almost $3 billion,** after added costs, and avoid **15 million metric tons (MMT) of CO_2 emissions**, **for homes built in the first year alone,**
- As codes strengthen over time, they will **save residents a net of $19 billion, reduce CO_2 emissions by almost 200 MMT, and add 590,000 jobs** (measured in job-years).

*For more information, please contact Lowell Ungar (**lungar@aceee.org**) or Aimee Bell-Pasht (**abellpasht@aceee.org**).*