NAHB's Fictitious Building Code Cost Claim

SEPTEMBER 2025

The National Association of Home Builders (NAHB) has been saying (and saying and saying) that building a home to meet the 2021 International Energy Conservation Code (IECC) will add "as much as $31,000" in cost, or even that it "will add $30,000 to the cost of a new home in most states" (44 to be specific). The source cited for that number is speculation by "several" home builders about a proposed Kansas City, MO, update to the 2021 IECC (since adopted) compared to the previous local code.

Even for that one location it is simply wrong. **More than 80% of the alleged cost is for measures *that are not even required by the code*** (and more than $5,000 is an add-on for the home builder):

- $18,137 for "Frame wall: R0c.i. to R10c.i. (2x4)." The footnote for this item says "Reflects the additional local cost of a double-wall home, a requirement to meet 2021 IECC." But the 2021 IECC *does not require a double wall*; the "prescriptive" pathway, which specifies one way of meeting the code, uses a combination of single-wall cavity insulation and a continuous insulation wrap (actually it gives options for a few combinations). "Performance" pathways allow even more flexibility in achieving the same overall savings.
- $3,206 for "Additional Energy Package: Ventilation, Gas House." In the prescriptive pathway, builders can select one of five options, some of which are much cheaper. Again, the performance pathways are even more flexible.
- $5,309 difference between the cost to builder and price to consumer.

Other costs are double counted and often dubious, such as:

- $1,252 + $417 for "Air seal rim." The total includes costs for two different construction methods—but not more than one would apply to a house (and the code change just clarified an existing requirement for air sealing, so it is not clear that there is any additional cost).
- $49 + $60 for "Lighting: 100% high-efficacy; controls." Again the total includes costs for two different construction types, when only one would apply. High-efficacy lighting is now already required by federal lighting standards, so the code now mostly just affects controls.
- $99 for "Certificate: Additional Required Info." The changes just add a little key info to the posted certificate that has long been required—for most homes, which code and pathway the builder followed and a couple results from required air leakage tests.

The claim is vastly higher than *NAHB's own commissioned analysis* conducted by Home Innovation Research Labs (an NAHB subsidiary) which itself was found to be flawed by an independent review.

Builders in Kansas City and elsewhere **have shown they can build to higher efficiency levels at a much lower cost**. And state adoption of the 2021 IECC does not seem to change the number of new homes.

The most authoritative construction cost estimates are from Pacific Northwest National Laboratory (PNNL) and the Department of Energy (DOE) using industry cost databases such as RS Means as well as actual equipment prices in big box stores. Even after increasing the PNNL estimates by 37% to account for inflation and supply chain issues (and decreasing by 5% for their smaller homes), the U.S. Department of Housing and Urban Development and Department of Agriculture estimated the **cost difference between 2009 IECC and 2021 IECC is** $8,613 in the Kansas City climate zone and **$7,229 as the national average**. The cost to update from more recent codes (including in Kansas City) is smaller.

For individual components:

How the Home Builders Exaggerate Costs

	PNNL for DOE	KCHBA	HIRL for NAHB	Notes
Baseline	*2018 IECC*	*Kansas City code*	*2018 IECC*	
Wall insulation	$1,962 (compared to 2009 IECC might be double, i.e., $3,924)	$18,137	$4,970	PNNL and HIRL numbers are for continuous insulation, KCHBA for a double wall
Efficiency option package	$830 or $975	$3,206	$740	PNNL and HIRL for an efficient water heater, KCHBA for ventilation package
Air sealing	--	$2,194	$942 or $1,777	2021 IECC just adds more detail to the instructions
Ceiling insulation	$600	$1,366 (+$25)	$1,366 (+$25)	
Floor insulation	$513	$993	$993	

Cost estimates are for the 2021 IECC in Climate Zone 4 (Kansas City) for key measures. PNNL = Pacific Northwest National Laboratory; KCHBA = Home Builders Association of Greater Kansas City; HIRL = Home Innovation Research Labs, a subsidiary of the National Association of Home Builders.