# New UK homes force residents to pay £1,000 more annually due to poor energy standards



Residents of newly constructed homes in the UK are facing energy bills that could be nearly £1,000 a year higher than necessary, driven largely by poor construction standards. An analysis conducted by the Energy and Climate Intelligence Unit (ECIU) highlights a troubling trend; occupants of houses built since 2016 have collectively paid about £5 billion more in energy costs than they would have under prior regulations designed to ensure low-carbon construction.

The analysis underscores a stark reality: equipping new homes with heat pumps, solar panels, and improved insulation would have required an initial investment of £5,000 to £8,500. However, housebuilders have often claimed that these higher standards are financially prohibitive. As a result, a significant proportion of new homes continue to be fitted with gas boilers instead of the more efficient heat pumps, and around 60% of recent builds lack solar panels altogether. Despite the government's recent indication that new regulations may soon enforce the inclusion of renewable energy solutions, uncertainties linger regarding the extent and adequacy of these mandates.

Jess Ralston, an energy analyst from the ECIU, commented on the predicament, stating, “Governments giving in to housebuilder lobbying have left Britain with more poor-quality homes, more dependent on foreign gas, and more exposed to the highly volatile gas markets during the ongoing energy crisis.” This dependence on gas has become increasingly untenable, particularly as the North Sea's output declines, asserting the need for better-designed homes that prioritise energy efficiency.

The planned ban on gas boilers, set to be implemented in most new homes by 2027, is a welcome development, although it has been subject to considerable debate. Originally announced in 2019, the Labour administration plans to finalise the regulations by May 2025. This new standard aims to significantly reduce carbon emissions, potentially creating opportunities for the UK to become a leader in the heat pump market. Currently, the UK lags behind, installing the fewest heat pumps per household compared to its European neighbours. Nevertheless, if these regulations mandate heat pumps for new builds, sales could soar from about 100,000 units a year to an estimated 400,000.

Opponents of the new proposals, including Neil Jefferson, Chief Executive of the Home Builders Federation, contend that the ECIU’s findings are based on flawed assumptions regarding policy timelines, arguing, “New-build homes have become increasingly more energy efficient and now save owners thousands of pounds in energy bills compared with older homes.” Jefferson emphasised that ongoing improvements in construction practices should not be overshadowed by perceived failures to meet earlier low-carbon standards.

This debate has deep roots; the zero-carbon homes standard was established under the previous Labour government in 2006, with a decade provided for builders to prepare. However, intense lobbying led to the scrapping of these regulations in 2015, leaving a regulatory vacuum that has persisted for years. The delayed rollout of the 'future homes standard' has raised concerns among campaigners, who fear that it may be further weakened in response to industry pressures, particularly regarding essential features such as heat pumps and adequate solar panel installations.

In a troubling backdrop, it is worth noting that the Conservative party has received a significant portion of its donations from housebuilding and property development companies, which may further complicate the regulatory landscape. Meanwhile, the ongoing housing crisis has resulted in sharply declining rates of affordable housing construction, especially in urban areas like London, where pressures from inflation and safety regulations have severely limited new projects.

The ECIU's analysis concludes that the 1.35 million homes built since 2016 at poor standards may each require an estimated £20,000 to retrofit for low-carbon compliance. Even with recent improvements to building regulations — which now mandate higher insulation standards — a mere 5% of new homes were fitted with heat pumps last year, while only about 13% included solar panels.

In light of these challenges, it remains clear that the UK’s housing policies must adapt promptly to ensure that future homes are both environmentally sustainable and economically viable for their occupants. As the government prepares to unveil new regulatory frameworks, the stakes remain high for homeowners and renters who are already grappling with rising energy bills amid an evolving energy crisis.

### Reference Map

1. Paragraphs 1, 2, 3, 4, 5, 6
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3. Paragraph 3
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5. Paragraph 5
6. Paragraph 2, 5, 6
7. Paragraph 1, 2, 5, 7

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## Bibliography

1. <https://www.theguardian.com/environment/2025/may/16/energy-bills-for-uk-new-build-homes-higher-due-to-poor-construction-standards-analysis-shows> - Please view link - unable to able to access data
2. <https://www.theguardian.com/environment/2025/may/16/energy-bills-for-uk-new-build-homes-higher-due-to-poor-construction-standards-analysis-shows> - An analysis by the Energy and Climate Intelligence Unit (ECIU) reveals that occupants of homes built in the past seven years have collectively paid approximately £5 billion more in energy bills than they would have if regulations requiring new homes to be low-carbon had not been scrapped in 2016. The study highlights that equipping new homes with heat pumps, solar panels, and high-grade insulation at the time of construction would have cost between £5,000 and £8,500 for most of the period since 2016. However, most new homes have been built to lower standards of insulation and with gas boilers instead of heat pumps, with about six out of ten new homes still being built without solar panels. The government has recently confirmed that new regulations are likely to require renewable energy generation to be incorporated in most new homes, which is likely to mean solar panels in most cases, but there are still questions over whether an adequate number of panels will be mandated.
3. <https://www.ft.com/content/3a359b76-d049-47f2-b0d1-70823d2c9e57> - A new policy in England will ban gas heating systems in most new homes starting in 2027. Builders will need to use electric heat pumps or other non-gas systems to enhance energy efficiency and reduce carbon emissions as part of the 'future homes standard.' Although initially announced by Philip Hammond in 2019 with a six-year preparation period, the Labour administration hopes to finalize and legislate the guidance by May 2025. The delayed implementation is criticized for potentially adding costs to homeowners, with an estimated 700,000 homes already built with gas systems needing future replacements. The new regulations aim to cut emissions by 75-80% from current standards and encourage, but not mandate, solar panel use. Industry representatives call for clear guidelines and adaptable transition arrangements to meet these new standards effectively.
4. <https://www.ft.com/content/e33c3056-aa2c-4021-b75c-bda2ff4db556> - Plans by the UK government to require solar panels on nearly all new homes by 2027 have drawn criticism from housebuilders, who warn the regulation could impede housing construction. The proposal suggests 40% of a home's footprint be covered with solar panels to reduce energy costs and emissions — a measure the Home Builders Federation (HBF) argues is impractical due to varying roof shapes and orientations. While officials estimate that adding solar panels would increase building costs by £3,300, they claim this would be recouped within four years through energy savings. Builders, however, contend that the 40% coverage may be unachievable for many structures, advocating instead for a more feasible 20% target. They also express concerns that seeking prior approval for deviations from the target could slow construction and burden developers with excessive administrative processes. Despite these concerns, the renewables sector welcomed the initiative, viewing it as a step toward improved energy security and progress toward the UK's net-zero goals. The housing department affirmed its commitment to energy efficiency and acknowledged the need for flexibility, while also expressing intent to collaborate with housebuilders through the Future Homes Standard.
5. <https://www.ft.com/content/68ba72e3-08fa-465e-ab61-cfa94a58382c> - London is experiencing its most severe downturn in affordable housing supply in decades due to factors such as inflation, high interest rates, and building safety costs. Housing associations face significant financial pressures, leading to an 88% drop in affordable housing starts within a year, with similar declines observed in local authorities and association starts. This shortage has exacerbated homelessness and increased pressure on local councils, which spent £4 million daily on temporary accommodation. High private rental rates have forced people with lower incomes out of the city. Building safety work, especially after the Grenfell Tower fire, is a major financial burden for London’s housing associations. Government funding covers just 12% of building costs, having been significantly reduced since 2010-15. Officials warn that the crisis will worsen before any improvement, despite government promises for additional support and new funding programs expected to be announced in the spring.
6. <https://www.theguardian.com/money/2023/oct/16/housebuilders-just-want-the-cheapest-thing-possible-how-futureproof-are-new-build-homes> - Homeowners and renters in new-build properties are frustrated by reliance on gas amid energy crisis. The government’s delays in implementing low-carbon building regulations have benefited housebuilders and property developers by billions of pounds over the last eight years, while UK households shoulder the cost of soaring energy bills amid the energy crisis. The sector, which is a significant Conservative donor overall, has saved at least £15bn since 2015 by building homes to old standards, without solar panels and batteries, heat pumps and effective insulation. As a result, many Britons live in new-build homes that, despite having been constructed in the past few years, are far from futureproof. Renters and homeowners tell the Guardian about moving into brand-new properties that run on gas boilers and lack top grade insulation – leaving householders vulnerable to climbing bills and increased retrofitting costs.
7. <https://en.wikipedia.org/wiki/Performance_gap> - A performance gap is a disparity that is found between the energy use predicted and carbon emissions in the design stage of buildings and the energy use of those buildings in operation. Research in the UK suggests that actual carbon emissions from new homes can be 2.5 times the design estimates, on average. For non-domestic buildings, the gap is even higher - actual carbon emissions as much as 3.8 times the design estimates, on average. There are established tools for reducing the performance gap, by reviewing project objectives, outline and detailed design drawings, design calculations, implementation of designs on site, and post-occupancy evaluation. NEF's Assured Performance Process (APP) is one such tool, which is being used extensively on different sites that form part of East Hampshire's Whitehill and Bordon new town development, one of the largest regeneration projects anywhere in the UK, with high ambitions for both environmental performance and health.