

Private Rental Energy Performance Report

Exploring the energy efficiency of the private rented stock and how this is evolving.



October 2024

Decarbonising the UK's housing stock is crucial to meeting 2050 emissions targets

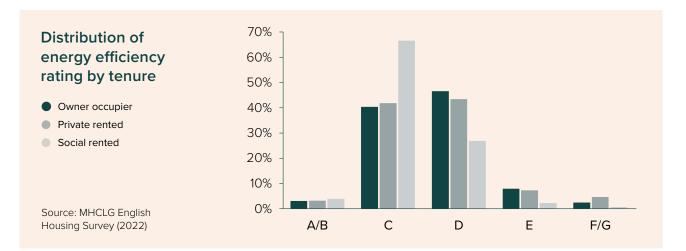
Decarbonising and adapting the UK's housing stock remains critical if the UK is to meet its 2050 emissions targets, especially given that emissions from residential buildings account for 15% of the country's greenhouse gas emissions. Government policy requiring landlords to improve the energy efficiency of their properties is part of these efforts.

In this report we explore the energy efficiency of the private rented stock and how this is evolving. In particular, we explore the extent to which buy to let (BTL) investors attach a premium or discount when they purchase a property as a result of its energy efficiency rating (controlling for other property characteristics). We also analyse how this has changed over time and how it compares with the value that owner occupiers attach to energy efficiency ratings. We also estimate the extent to which energy efficiency impacts rents in the private rented sector (PRS) and consider how these effects vary across England.

Private rented stock - middle of the pack?

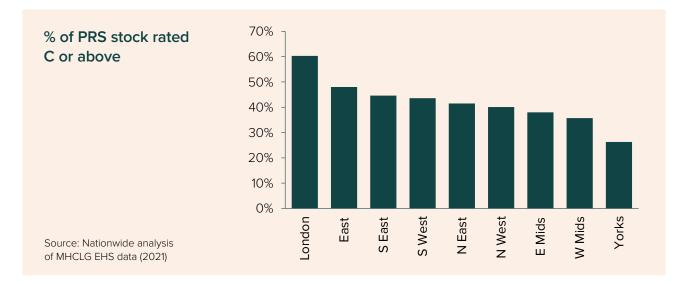
There is significant variation in the energy efficiency of the housing stock across different tenure types. Energy efficiency is typically much better among the social rented stock (i.e. properties owned by local authorities or housing associations) due in part to tighter regulation. For example, 70% of properties in the social rented sector are rated A to C, compared with 45% in the private rented sector.

The differences between the PRS and the owner occupier stock is more nuanced. Although a slightly larger proportion of the private rented stock has above average energy performance ratings of A to C rated properties compared to the owner occupied stock, it is also overweight in stock with lower F and G ratings.

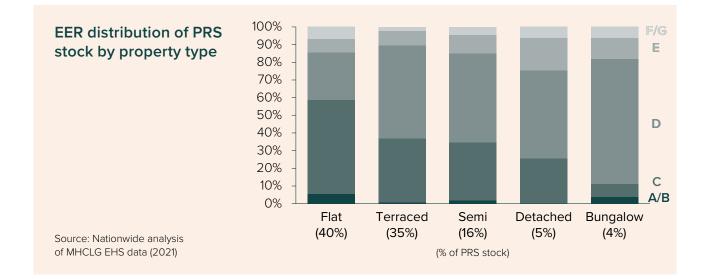


Does location make a difference?

There is also a fair degree of regional variation in energy efficiency, especially within the PRS. London has the most efficient properties, with 60% rated C or above, while nearly 50% of PRS properties in the East of England are rated A-C. The North East and North West are in the middle of the pack with 42% and 40% respectively rated C or above. Meanwhile, at the other end of the spectrum, in the Midlands, less than 40% are rated C or better, while Yorkshire and The Humber have the least efficient properties, with only c25% rated A-C.



Much of the regional variation is likely to be due to the age of the stock and differences in the mix of properties. For example, London has a much higher proportion of flats, which tend to have better energy efficiency ratings (EERs) than other property types. Within the PRS, 5% of flats are rated either A or B, whilst a further 53% are C rated. While only c35% of terraced and semi-detached houses are rated C or above. The least energy efficient properties within the PRS stock are detached where c25% are rated E or worse. However, detached houses account for a relatively small proportion (5%) of the overall PRS stock.



What value do landlords place on energy efficiency?

We've used our data (for England) to examine the extent to which landlords purchasing BTL properties pay a premium or discount due to energy performance rating. To do this, we included energy efficiency ratings from energy performance certificates (EPCs) alongside other observable property characteristics to estimate the impact on BTL property prices. This allows us to control for other factors that can influence the value of a house or flat, such as the number of bedrooms, location and whether it is newly built.

1. Our analysis suggests that a more energy efficient BTL property, rated A or B, attracts a significant premium of 10.9% compared to a similar property rated 'D' (the most commonly occurring rating). C rated properties attract a 3.4% premium, while there is a slight discount for E rated properties (1.7%).

2. The value that BTL purchasers attach to energy efficiency, in particular more efficient properties, appears to be significantly greater than for owner occupiers. For example, an A or B rated house bought by someone looking to live in the property themselves only attracts a 2.2% premium.

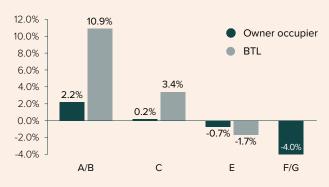
3. The price premia does vary markedly across the country. In the North of England, an A or B rated BTL property attracts a 15% premium, whilst in the Midlands this is 12.5%. In the South of England however, this premium is considerably lower at 5.6%.

BTL price premia relative to energy efficiency rating D



Source: Nationwide analysis based on data for England. Note: Controls for other factors, such as new build

Price premia relative to energy efficiency rating D



Source: Nationwide analysis based on data for England (12m to Jun-24)

Price premium for A/B rated property compared with energy efficiency rating D



Policy exerts an impact on pricing behaviour

The introduction of minimum energy efficient standards (MEES) appears to have had a major impact on the premia or discount that BTL investors attach to energy efficiency performance. We replicated the analysis above using data for 2015, prior to the introduction of MEES. We find that the value associated with an A or B property by BTL investors in 2015 was much smaller (at 3.2%), as was the discount on less efficient properties.



Our research highlights the impact that policy measures and incentives can have on the 'greening' of the housing stock and the potential 'transition risks' associated with this. With the new government recently announcing plans that landlords will have to meet an energy efficiency rating of C by 2030, this looks set to remain an important issue in the years ahead.

Is there a rental premium for more energy efficient properties?

We also explored the extent to which energy efficiency impacts potential rental income.

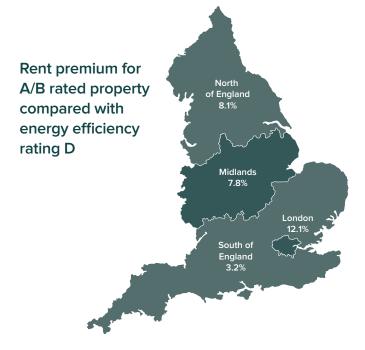
While the impact is smaller than on property prices, our analysis suggests that an A or B rated property attracts a 7% rental premium compared to a similar D rated property. On our estimate of the typical rent in England of £1,025, this equates to a premium of c£70 per month.

C rated properties attract a 2% rental premium (c£20 per month), though we found no discernible discount on rents for less energy efficient properties at this stage.



As with the impact on property prices, we also found variation in premia across the country. London attracts the biggest rental premia, with an A or B rated property commanding a 12% higher monthly rent and a C rated property nearly 4% more.

The Midlands and North of England both have an 8% premium for A/B rated properties, while energy efficiency appears to have a modest impact on rents in the South of England, which only sees a 3% premium. This is also consistent with our earlier findings, with BTL properties in the South of England seeing a smaller house price premium relative to other regions.



Energy efficiency of the total housing stock is gradually improving

Over the past ten years, energy efficiency of the overall housing stock (i.e. of all tenure types) has improved significantly, thanks in part to the higher energy rating of newly built properties. However, the rate of improvement has slowed markedly in recent years. The latest data (2022) shows 48% of the housing stock (of all tenure types) is now rated C or higher, up from 18% in 2012.



As noted above, newly built properties typically have a much higher rating (97% are rated C or above), although the stock increases very slowly (typically by c.1% per annum). However, it is important to note that while these homes are energy efficient once built, a significant proportion of new homes' carbon footprint (between 25% and 50%) relates to its construction.

Government analysis based on the latest English Housing Survey suggests that if all applicable energy improvement measures were applied to all dwellings (across all tenures) rated below C, 96% of those would shift into bands A to C, while 4% of dwellings could not be improved beyond a D rating.

According to the latest English Housing survey in 2022, the average cost to improve dwellings to band C was c.27,400, with an overall estimated total cost for upgrading the entire housing stock of between 291bn and 294bn¹. As expected, dwellings with a rating E to G have a higher average cost to improve than D rated homes (213,500 vs 26,200).

¹ Ministry of Housing Communities & Local Government – English Housing Survey Energy Report 2022-23

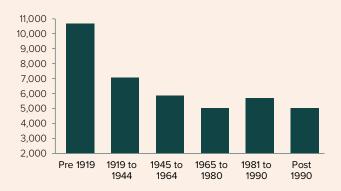
Cost factors for upgrading properties to energy efficiency band C

1. As you might expect, average costs to improve older properties tend be higher, particularly for those built before 1919, where the average cost to upgrade to a band C is over £10,000 (based on 2022 costs). Properties built more recently tend to be more energy efficient, so fewer improvements are required in order to bring them up to C standard. For example, the average cost to update a property constructed after 1990 that is currently rated D-G to C standard is around £5,000.

2. There is also variation across property types, with detached and terraced houses seeing the highest costs to improve to band C (at over \$8,000), while the cost to upgrade purpose built flats is much less at under \$4,000. Again, this is likely to reflect that relatively fewer measures will be required to update purpose built flats, given only a very small proportion are currently rated E-G.

3. Differences in the age and property type of the housing stock across the country drive variations in the average upgrade costs across the country. The East of England and the South West have the highest costs (both in excess of £8,000), followed by London. Upgrade costs tend to be lower in the North of England, in particular the North East, where average costs are a little over £5,000.

Average cost of improving to EER band C by property age



Source: MHCLG English Housing Survey (2022)

2 Average cost of improving to EER band C by property type



Source: MHCLG English Housing Survey (2022)

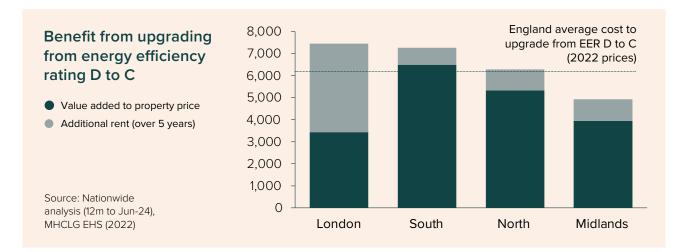
Average cost of improving dwellings to EER band C, by region, 2022



How strong is the incentive to improve energy efficiency?

The analysis on the previous page indicates that caution is needed when comparing the costs and benefits of making energy efficiency improvements, given the significant variation seen across location, age and type of property. Nevertheless, by comparing the average costs of improvement with the impact on house prices and rents we can draw some broad conclusions.

The chart below compares our estimates of the benefits raising an average D rated property to a C rating (in terms of higher house prices and rents) with the Government's most recent estimates (2022) of the cost of making such an improvement. This suggests that the positive impact on house prices is equivalent to a significant proportion of the initial investment (and actually exceeds it in the south).

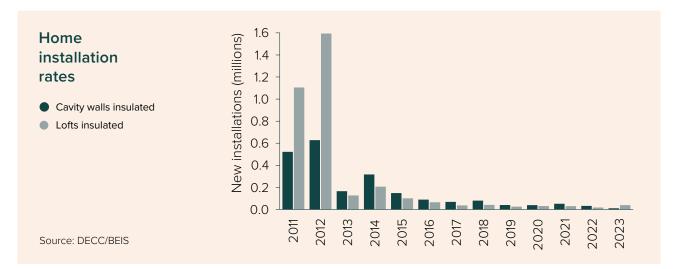


Moreover, combined with the higher achievable rents, the majority of landlords are likely to recoup the initial investment within five years (though clearly the full financial benefits would only be realised upon sale of the property, which may also incur additional costs, including capital gains).



Upgrading the housing stock will take some time...

The Government's current aspiration is to upgrade as many homes as possible to a C rating by 2035. However, the current pace of energy efficiency improvements is relatively slow, given the scale of the challenge. For example, the rate of insulation installs is a fraction of the 2012 peak (see chart below), the last year of the Carbon Emissions Reduction Target and the Community Energy Savings Programme. This suggests a need for further incentives to help decarbonise homes.



Government is committed to a mission to 'make Britain a clean energy superpower' and the 'greening' of the UK's homes, through the Warm Homes Plan, forms a key part of this mission.

The Warm Homes Plan will see £6.6 billion invested in 'greening' homes over the next five years. Funding will go hand in hand with regulatory measures and will set requirements around the pace at which homes need to meet certain standards.

The increase in Minimum Energy Efficiency Standards in the private rented sector is one of the regulatory measures which has been confirmed. By 2030 all rented homes will have to be a minimum of C rated, a step up from the current E requirement. Further detail is expected soon around which properties will be exempt from requirements and the levelling any cost caps will be set at.

Part of the Warm Homes Plan will include grants and low interest loans for energy efficiency measures, solar panels and low carbon heating including heat pumps. The Government's current flagship grant programme remains the Boiler Upgrade Scheme which enables both landlords (and owner occupiers) to access up to £7,500 to replace a fossil fuel heating system with a heat pump or biomass boiler.

Depending on who they are renting to, landlords may be able to access funding through the ECO4 scheme for insulation measures and some heating options. Tenants must meet eligibility criteria which are generally linked to receipt of benefit payments or other Government support. For properties with an energy efficiency rating of E or below, financial support may also be available through the Great British Insulation Scheme. This provides grants to improve energy efficiency of these low rated properties which can be accessed by landlords.

Alongside these schemes there are a number of other smaller grant programmes targeted at some of the worst performing properties or available through other providers, for example local authorities.

Conclusion

Our research indicates that landlords attach a premium to the price of properties that have higher energy ratings, after controlling for other property characteristics, where the impact on prices is significantly larger than we find for owner occupiers. While the magnitude of the price premia varies significantly across the country, the evidence suggests that the increase in value achieved by improving energy efficiency can make an important contribution towards, and in some cases exceed, the cost of upgrading the homes in question.

Moreover, we find that landlords typically achieve higher rents on homes that are more energy efficient (after controlling for other property characteristics) which would also help landlords recoup the costs of such investments over time.

However, at this point, the positive effects on property prices and rents are unlikely to be sufficiently large in themselves to induce landlords to upgrade all their properties to the highest attainable energy ratings, where in many cases, the payback period will not make such investments economically viable. This suggests a need for policy (in all its forms – regulation, taxes, subsidies, etc.) to play a greater role in supporting and incentivising landlords to make their properties more energy efficient. Indeed, we find that the 'price premia' on more energy efficient homes has become significantly larger in the private rented sector since the introduction of minimum energy efficiency ratings, which illustrates the powerful effect that policy can have on market dynamics.





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