



HEAT LOSS RATE

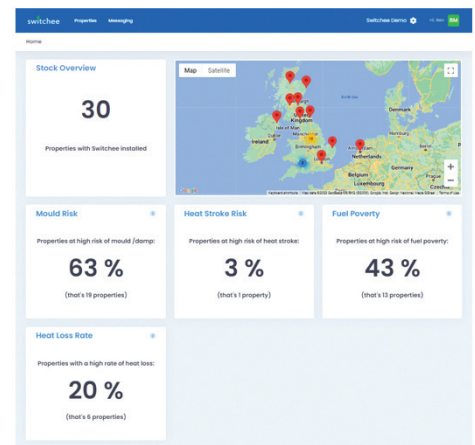


WHAT IS HEAT LOSS RATE?

Heat Loss Rate (HLR) is the time taken for a property to lose 1°C of internal air temperature. Switchee uses our smart device data to measure the rate at which each property cools when the heating is off.

An average home may have a Heat Loss rate of 4 hours (to lose 1°C) whereas a well insulated home may take 9 hours to lose that same 1°C.

To assess the performance of each home, we take internal temperature, external temperature, and heating usage into account. Our analysis minimises the impact of changing weather patterns, solar gain, and day-to-day changes in occupancy patterns.



HOW IS HEAT LOSS RATE MEASURED?

Heat Loss Rate in your housing stock will be measured as low, medium or high.

A long time period is considered a Low Heat Loss Rate and a short time period is considered a High Heat Loss Rate. The longer it takes to lose 1°C, the better for the property.

High Heat Loss Rate: These properties lose heat the quickest, taking less than 2 hours 55 minutes to lose 1°C of room temperature. This group corresponds to the worst-performing 20% of properties over winter 2021-2022.

Medium Heat Loss Rate: These properties take between 2 hours 55 minutes and 5 hours 31 minutes to lose 1°C of room temperature. They correspond with 60% of the properties that performed closest to average over winter 2021-2022.

Low Heat Loss Rate: These properties lose heat the slowest, taking more than 5 hours 31 minutes to lose 1°C of room temperature. This group corresponds with the best-performing 20% of properties over winter 2021-2022.

The thresholds for High and Low will remain fixed at winter 2021-22 levels; landlords who invest to improve insulation should see the proportion of homes in the "high rate" group drop and the proportion in the "low rate" group grow over time.

WHY IS MEASURING THE HEAT LOSS RATE OF YOUR PROPERTIES IMPORTANT?

Assess the impact of retrofit projects and disrepair improvements

By measuring heat loss rate before and after property improvements you can clearly see the impact they have had on the home's ability to retain heat. This is measured as a time frame and percentage, enabling you to understand exactly how much of a difference your improvements have made.

As an example from a macro view of Switchee data we can see those properties where insulation has been improved or double glazing installed, resulting in a direct improvement on the heat loss rate of the property, giving them a Low Heat Loss Rate (HLR)

Heat Loss Rate correlates to High Fuel Poverty Risk and High Damp & Mould Risk.

Compare properties in your housing stock

By analysing Heat Loss Rate you can compare and group properties in your portfolio to learn what it is that these have in common. It could be the archetype, orientation the property is facing, weather in the local area, location within the UK. By harnessing this information you can make more informed decisions on how to prioritise retrofit works and which residents to house where, depending on Heat loss Rate performance.

As an example, we can see overall that homes in the north of the UK will require increased insulation measures when compared with those in the south as those homes are exposed to colder temperatures and so generally will lose heat quicker, this means that the same property can have different comfort levels for residents depending on it's location.

HOW DO WE CALCULATE HEAT LOSS RATE?



We take internal temperature, external temperature and heating usage into account, to assess the performance of each home. Our analysis minimises the impact of changing weather patterns, solar gain and day-to-day changes in occupancy patterns.

The rate of heat loss is influenced by:

- Differences in insulation and ventilation of properties
- Differences in archetype (eg end-of-terrace v mid-terrace), the orientation each building faces (exposure to sun, wind, rain), overall weather in the area (homes in colder areas will tend to lose heat more quickly and will hence need better insulation to achieve the same comfort level)
- Patterns of occupancy, location of the thermostat within the property etc

WHAT IS YOUR HOUSING STOCK'S HEAT LOSS RATE?

Get in touch with your Switchee Customer Success Manager today to review the Heat Loss Rate of your Housing Stock.

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For more information on heat loss rate, contact our team today.