SMART HTC

BUILD TEST SOLUTIONS

Smart HTC

What is Smart HTC?

Smart HTC delivers an accurate and reliable measurement of whole building fabric heat loss (also known as a heat transfer coefficient or HTC). The measurement takes into account the performance of the building fabric as a whole and within a single value, indicates the amount of energy required to maintain a building at a stated temperature. HTC is calculated 'under the bonnet' in every single SAP & RdSAP assessment and also enables direct comparison of predicted and measured performance.

How does Smart HTC work?

Gas and electricity consumption is measured at 30 minute intervals, via a smart meter. Measurement can also be taken from homes without smart meters by using alternative monitoring equipment.

Energy data is combined with internal temperatures, external weather data and basic property information (floor area, heating type, property type etc).

This information is then fed into a web based algorithm which provides a single HTC value. This alogrithm is more reliable during winter months where it is easier to measure positive heat flow through fabric.

Who is Smart HTC for?

Policy Markers and regulators

With Smart HTC you can understand the true performance of the building stock and assess the impact of policy interventions at scale.

Stock owners and asset managers

Smart HTC will allow you to compare and monitor the fundamental performance of assets with occupancy and weather factors accounted for.

Energy Suppliers

Energy Suppliers can measure and understand the true space heating energy demand presented by buildings with Smart HTC.

Home owners and building occupants

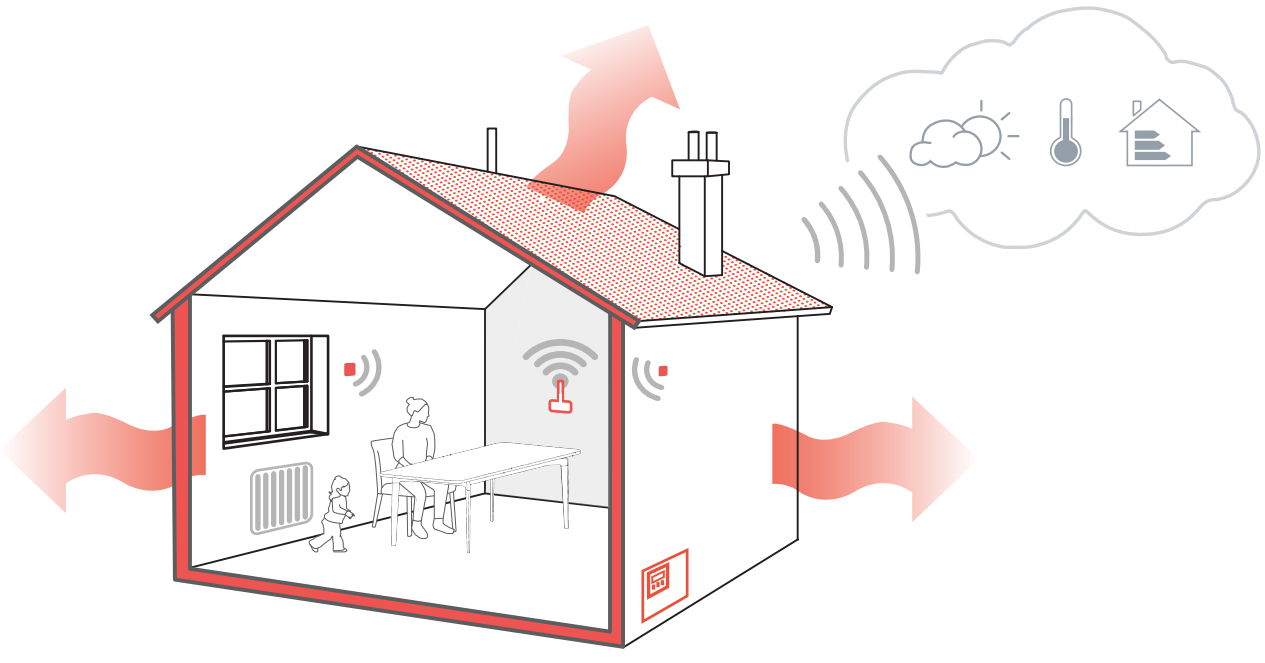
Smart HTC can help home owners to quantify the real time energy performance of their property and its improvement potential.

Research Organisations and Energy Professionals

Research organisations and energy professionals can use Smart HTC as a practical and cost effective measurement alternative to co-heating tests.

Smart Technology Companies

Integrate Smart HTC via API to provide added value to your customers with dependable building performance insights



Why is Smart HTC needed?

20% of all energy use in the UK is for heating homes; this makes it the single biggest user of energy, it's a big cost to residents and a big contributor to the country's carbon emissions. The problem is that homes have been shown to routinely perform worse than expected, and often by a significant amount (an average of 60% underperformance in the largest study undertaken).

We need measurement of thermal performance to understand how to more efficiently heat our homes, and to design methods and policies to improve their performance.

What problem does Smart HTC solve?

Previously the only alternative means of determining the overall fabric performance of a building has been to either predict it through modelling techniques or to carry out a co-heating test. For modelling, a large number of assumptions are required and results carry an uncertainty of 60% on average. The co-heating test on the other hand can offer a reliable measurement but requires a property to be vacant, undisturbed and with all appliances switched off for a period of two weeks which is highly impractical.

Smart HTC uses smart meter data and measurements of internal temperature collected while the residents are in the house, and analyse this to measure the HTC. Our testing has shown that this is comparable with co-heating but much less invasive and as a consequence less expensive.

Step 1: Select a solution

Build Test Solutions provides a number of solutions through Smart HTC which have been developed to meet the needs of different industry stakeholders. The price of the Smart HTC product offering is determined by the solution selected below as well as the service level required.

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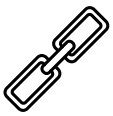
Smart HTC Web Service

A cloud based service that returns a thermal performance measurement based on data recorded and supplied to BTS by APIs.

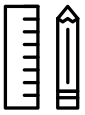


Smart HTC Integration

Integration of the Smart HTC calculation algorithm alongside your own hardware (e.g. smart thermostat or in home display)

Smart HTC Verified

BTS provision of cloud-connected verified hardware for self-installation combined with our Smart HTC web service.



Smart HTC Measurement Service

Site visit by certified professional for survey, equipment installation and report.

Step 2: Select service level

The Service level indicates the approximate number of properties that your selected Smart HTC solution will be applied to.

Basic

1-50 properties

Tier 1

51-100 properties

Tier 2

101-2,000 properties

Tier 3

2,001 + properties

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Contact
For more information about Smart HTC or if you would like to purchase one of the Smart HTC solutions please contact Build Test Solutions using the details provided:

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