Cleantech homes, sustainability and residential property valuation (249)

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Key words: valuation, ethics, trust, transparency, standards, consistency, sustainability, stakeholder engagement

SUMMARY

Residential property plays a vitally important role in society. In addition to its primary purpose of meeting the housing requirements of the population it is also a growing investment asset class. Occupation of residential property ranges from rental through intermediate forms of tenure, including shared ownership, through to full owner occupation. Residential property's use as an investment asset is growing rapidly. Direct investment is undertaken at all levels, ranging from large institutional investors through to private individuals.

At the same time, sustainability, which covers a broad range of physical, environmental and social factors, is playing an increasingly important role in legislation and patterns of economic behaviours and preferences. With extreme weather events, becoming increasingly common, this will have an impact on the valuation of a property.

In 2024, RICS joined a number of organisations and policymakers involved across the UK housebuilding value chain. The group considered the merits of faster decarbonisation of the UK's new-build residential property sector. The report highlights the progress made to date and the further industry and policy actions required to accelerate the transition from gas to clean technologies.

The group specifically considered 'Cleantech homes'. Cleantech homes are defined as those that have electric heating systems like heat pumps. They are not connected to the gas grid and do not use any other fossil fuel for heating. They can go further than electric heating, for example with an electric vehicle charger or solar panels and batteries. These homes are 'net-zero ready' – as they only have electric appliances, the energy they use will be carbon-free once the National Grid achieves its 100% clean electricity target, which is currently by 2030.

This paper aims to consider the commercial case for developers who are considering developing Cleantech Homes. The paper examines the emerging evidence of value premiums for cleantech homes in the UK. This evidence base can then be used to facilitate conversations with other countries' experiences to compare and contrast experiences.

It is vital that valuers of residential property are fully aware of the sustainability characteristics of buildings and the legislation, public policy and fiscal measures that may have an impact on their value. It is likely that residential markets, over time, will become progressively sensitised to sustainability considerations. Therefore, valuers are advised to keep abreast of trends and the changing views of stakeholders, and collect appropriate and sufficient sustainability data when inspecting property.

Valuation acts as a core pillar of financial reporting, investment analysis, public policy, secured lending and property purchasing /renting decisions. Its importance extends not just to those

preparing valuations, but also to those who rely heavily on them, which includes investors, auditors, regulators, owner occupiers and renters.

Given the importance of housing in society, allied to the pace of change in technology playing a greater role in the residential valuation industry, continuing government intervention in the property market and continued housing shortages – having an understanding of some of the drivers that underpin the valuation of sustainability considerations within residential property are therefore of immeasurable benefit to society as a whole.

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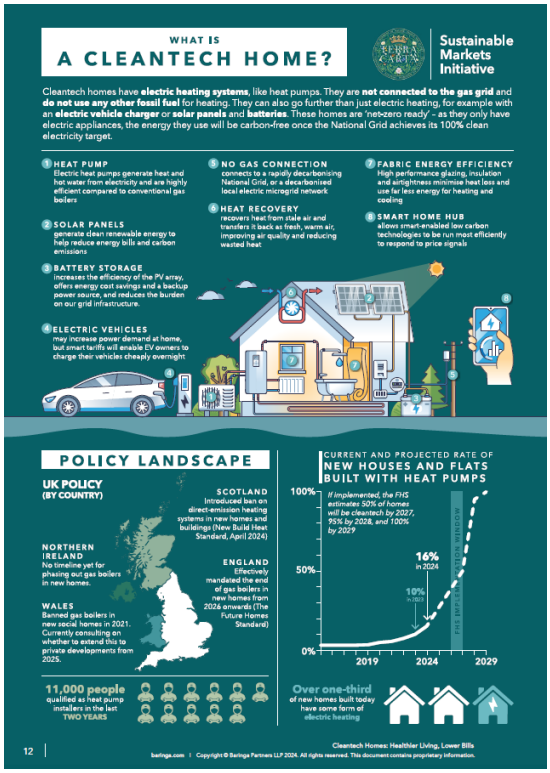
1. BACKGROUND

1.1 Cleantech homes have electric heating systems like heat pumps. They are not connected to the gas grid and do not use any other fossil fuel for heating. They can go further than electric heating, for example with an electric vehicle charger or solar panels and batteries. These homes are 'net-zero ready' – as they only have electric appliances, the energy they use will be carbon-free once the National Grid achieves its 100% clean electricity target, which is currently by 2030[1].

1.2 The transition to net-zero demands a major shift in how we power and heat our homes. Domestic heating is responsible for around 18% of UK carbon emissions, so building cleantech homes with electric rather than gas heating is a vital stepping stone to a sustainable future[2]. There has been major progress, with nearly16% of new houses and 33% of all homes (including flats) now having electric heating.3 But these numbers are still too low – and every boiler installed now will need costly retrofitting later.

1.3 At the same time, consumer interest in cleantech homes is growing. Since 2020, searches for 'solar panels' and 'heat pumps' on Rightmove's website have increased from the top 500 to the top 100, and from >1000th place to 200th[3].

1.4

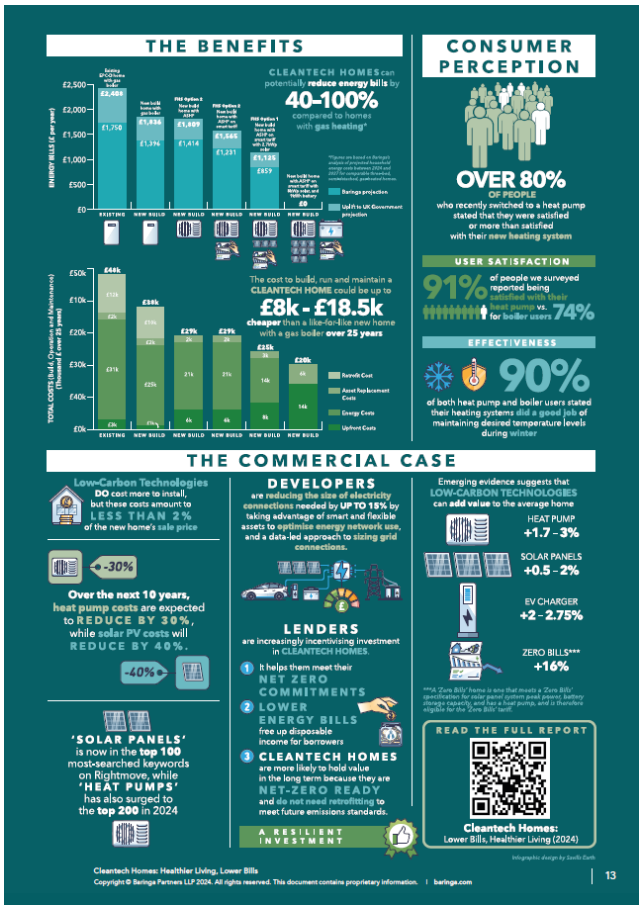


[1] https://labour.org.uk/wp-content/uploads/2024/03/Make-Britain-a-Clean-Energy-Superpower.pdf

[2] National Audit Office (2024) Decarbonising home heating: Report for the Department for Energy Security and Net Zero.

[3] Rightmove Data Services (2024).

1.5



2. EXISTING RELATED VALUATION STANDARDS

2.1 INTERNATIONAL VALUATION STANDARDS (JANUARY 2024)

Glossary

Environmental, Social and Governance (ESG)

The criteria that together establish the framework for assessing the impact of the sustainable and ethical practices, financial performance or operations of a company, asset or liability. ESG comprises three pillars, all of which may collectively impact performance, the wider markets and society.

Taken from IVS General Standards: *IVS 104 Data and Inputs Appendix*: *"ESG factors and the ESG regulatory environment should be considered in valuations to the extent that they are measurable and would be considered reasonable by the valuer applying professional judgement.*

2.2 RICS VALUATION – GLOBAL STANDARDS (2024)

There are numerous existing references to sustainability within the RICS Valuation – Global Standards (2024), these include:

Glossary

"Carrying out activities without depleting resources or having harmful impacts.

It includes matters such as (but not restricted to) environment and climate change, health and wellbeing, and personal and collective responsibility that can or do impact valuation.

Also see environmental, social and governance (ESG). Both terms are used in conjunction throughout these standards; however, ESG is the assessment tool and framework, whereas sustainability is the goal and/or outcome."

VPS 4 Inspections, investigations and records

3.8 Valuers must request and seek to collect appropriate and sufficient sustainability and ESG data for the valuation. What is appropriate and sufficient will be subject to and proportionate to the valuation circumstances. There may be matters outside the valuer's control, such as but not limited to the prevention of ESG data sharing by the owner or occupier of an asset. Any limitation on investigations must be considered in accordance with VPS 1 paragraph 3.2(i) and VPS 6 paragraph 2.2(g). Relevant ESG data used in a valuation must also be appropriately recorded.

VPGA 2 Valuations for Secured Lending

"the current marketability of the interest and commentary about the sustainability of this in the context of the duration of the loan."

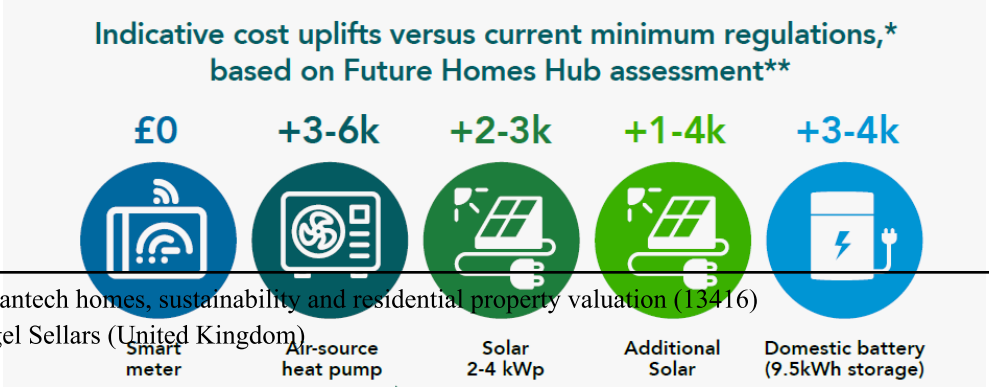
VPGA 8 Valuation of real property interests

See Appendix 1 for further information.

3. CURRENT EVIDENCE OF VALUE PREMIUM FOR CLEANTECH HOMES

3.1 Cleantech costs less than 2% of the sale price – and can be passed on without removing the benefits to consumers due to bill savings. Low-carbon technologies do cost developers more to install, but these costs amount to less than 2% of a new home's sale price. Buyers are likely to be better off due to bill savings, meaning both developers and consumers benefit – even if these costs are fully passed on.

3.2 The Future Homes Hub has estimated that additional capital cost to build a new three-bed semi-detached home with a heat pump and solar panels versus with a gas boiler is around £7,000-8,000. This represents an uplift of only 1.8% on the average price of a new-build home, which is around £400,000.



3.3 Emerging evidence suggests house values could increase by up to 16%:

Given the increased upfront investment, on a simple cost basis, some developers might consider it better to leave the heat pump transition to the last possible moment under regulation. However, there is emerging evidence of value premiums for energy efficient homes that have lower running costs and low-carbon technology.

3.4 Analysis by the Department of Land Economy at the University of Cambridge (commissioned by ScottishPower and WWF) reviewed over five million existing homes. The results suggest that low-carbon technologies can add value to the average home. They found that:

• Heat pumps can add £5,000-8,000 (1.7-3.0%)

• Solar PV can add £1,350-5,400 (0.5-2.0%)

• EV charging points can add £5,400-7,400 (2.0-2.75%)

3.5 Another recent study of five million property transactions by the same University of Cambridge team (commissioned by Octopus Energy) identified a strong correlation between increasing house price value and lower energy bills. The analysis suggests a price premium of up to 16% for 'Zero Bills' homes and a 5-6% premium for new homes built to current standards (versus comparable existing homes).

4. THE ROLE OF THE VALUER

4.1 If sustainability features are identified and recognised as having an impact on value, they should be built into the calculations to the extent that a well-informed buyer and the market, as evidenced by comparable transactions, would account for them. If more detailed advice is to be given, valuers may wish to place the valuation within a wider context that may include the likelihood of sustainability issues gaining in importance over time. Where an investment value, or worth is being prepared, factors not yet reflected in Market Value may be included explicitly.

4.2 When collecting data on a property for valuation, valuers may wish to expand their basic data collection to include a record of any sustainability features, even if they do not currently have an impact on value. Through expanding the data available within the market, valuers are contributing to the improvement of knowledge within the profession by establishing an information base on the sustainability of market comparables. It is an essential exercise when valuing new-build properties. For example, when valuing second hand properties it is recognised that new-build properties may, as a result of more stringent building controls, have superior environmental sustainability performance features, which may result in an adjustment to the weight of the comparables against new-build properties.

4.3 In order to identify and assess sustainability features proficiently, valuers should continuously seek to improve their knowledge of sustainability so that they are fully aware of any new developments that may have an impact on value. This includes new technologies, legislation, public policy and fiscal measures, as well as the wider market's attitudes towards sustainability.

5. DATA LIMITATIONS

5.1 Limitations on data for sustainable building characteristics currently hinder the view of sustainability in the market. With a focus on cost saving, features such as insulation, an energy efficient boiler and draught proofing may be seen as the key sustainability building characteristics. However, the scope of identification and, so far as possible, quantification needs to be widened to include a range of functional, environmental and social issues. Further, as general purchaser and tenant awareness of sustainability increases, factors other than cost savings may have an impact on both Market Value and market rent. As improved information becomes available for new and existing buildings, valuers should routinely request, collect and store this for future comparable analysis data for valuation.

6. REFLECTING SUSTAINABILITY CHARACTERISTICS IN THE VALUATION

6.1 A valuation reflects the views of a well informed potential buyer or tenant using evidence of value found through the analysis of transactions of comparable properties. However, the valuer may be instructed to give further advice as to how the value sits within a market context. Therefore, when advising a purchaser, the advice may, in some circumstances, extend beyond the purchase price or rental value. For example, it may include an opinion of the level of risk to which the value may be susceptible under foreseeable market changes, with one of these areas of risk being the level of sustainability. It is therefore important that the valuer not only assesses the extent to which the subject property meets sustainability criteria, but also holds an informed view on the likelihood of environmental and social factors impacting values either positively or negatively over the short term.

6.2 Due to the current lack of information and data in the market, it is likely to take a considerable amount of time until sufficient information exists to empirically support a valuer's decision to differentiate values based on sustainability criteria. In some submarkets, for example low value properties in areas of below average income, the market may react more swiftly, particularly if supply exceeds demand. Elsewhere in high value areas of high demand, the market may take longer to differentiate.

6.3 Valuers are encouraged to gather such information routinely and provide explanations of their valuation adjustments in relation to the risks associated with less sustainable property, as well as the more subjective and intangible features in coming to a final value of the subject property. Notwithstanding this, the final valuation should be adjusted for sustainability factors only if there is evidence to support the adjustment.

6.4 To support this process and add to the data in the market, it is recommended that the valuation report, where the valuation instruction allows, includes the following:

- a clear description of the sustainability-related property characteristics and attributes, or lack thereof;

• a statement of the valuer's opinion on the benefits of these sustainability characteristics, or the risks associated with the presence of unsustainable property features; and

• a statement of the valuer's opinion on the impact of these benefits, and/or risks to relative property value over time. This will enable the valuer to give the client all material information relevant to the judgment on value.

6.5 The property age and type will have an impact on the likelihood of sustainability considerations affecting value. Some property construction types, such as those constructed in the 1960s and 1970s, may have very poor insulation qualities, while houses of solid wall construction may be more difficult to retrofit. Listed buildings may also present particular challenges that render them difficult, if not impossible, to bring up to sustainable standards at any economic cost. This can have an adverse impact on value if a property requires alteration to accommodate modern facilities. In addition, the ability to change the specification and thus performance of any individual property other than a detached dwelling may be limited.

6.6 The residential property market is far from homogeneous. The profile of people's expectations or requirements varies according to price bracket and style of property. For example, the impact of energy efficiency on running costs may be of very limited relevance for high value properties, but may be an important factor to the first-time buyer or tenant of a smaller, usually lower value, property.

6.7 It is important that valuers are well informed and knowledgeable about sustainability features, their costs and payback periods, and the implications for all parties involved in order to assess whether a value premium or discount applies by reference to market norms. To support the valuation, valuers should consider the following matters:

• analysis of sustainability characteristics of the subject property;

• the presence of environmental risks and their linkage to insurance and mortgageability;

• costs of incorporating sustainability features in an existing building that is below recognised or required standards, and associated risks;

• operating costs in relation to how the building is used, and the potential or risk of achieving cost savings;

• implications of sustainability characteristics for resale or reletting and ease of marketing;

• in the case of tenanted property, the likelihood that the tenant would use the lack of any sustainability feature, such as inefficient heating systems, poor insulation of walls and windows, etc., as a bargaining tool during rental negotiation;

• the presence of any local or national incentives or discounting schemes that reduce the costs of retro-fitting; and

• the subsector of the market and the likelihood that the typical potential buyer is 'sustainability aware'.

6.8 In considering these factors, it is recognised that currently most will not result in a significant impact on market rent or capital value. However, by systematically considering and collecting such information and advising clients of their likely future importance, valuers may more readily have the evidence to recognise and respond to market changes as they occur.

7. GREEN PREMIUM

7.1 Aspects of sustainability may affect value in different ways. 'Value add' features may be those that reduce expenditure on utilities, such as the installation of an energy-efficient boiler and water-saving features. Those that do not provide a value add feature, but do avoid a discount for being unsustainable, may be those that add to user comfort, such as insulation, or they may apply to property that has the potential to be easily upgraded. Valuers should seek to establish a detailed understanding of the features available, their costs and their payback periods, where applicable, in order to consider them in a valuation context.

7.2 A current barrier to evidencing the existence of any premium or discount for sustainable features is the lack of information and transparency in the market. Providing specific advice on these issues when a property is sold would highlight current sustainability features and any opportunities for improvements at a time when the property might be subject to change. In the same way that if a house has a leaking roof, a surveyor can direct a buyer to contractors who will offer competitive prices and effective solutions. Likewise if a house lacks user comfort or energy efficiency measures, a surveyor can highlight and comment on potential solutions.

8. CONCLUSION

8.1 Education is key, for valuers and also consumers to help drive change more quickly. However, the immediate cost benefits are still the biggest driver for home-owners to consider making green changes, so more needs to be done to help people afford to make improvements, which in turn enable valuers to reflect these characteristics in their opinion of value.

8.2 The availability of consistent, trusted and transparent data in relation to energy efficient characteristics is vital to elevating the understanding of sustainability for valuers.

8.3 The role of valuers is to assess Market Value in the light of evidence normally obtained through analysis of comparable transactions. Valuers reflect, not lead, markets. Although awareness of sustainability has risen significantly, attention is currently primarily focused on energy efficiency and, to a lesser extent, carbon emissions and propensity to flood. However, the agenda is far wider than this, and a range of social and other environmental

factors will potentially lead to changes in market demand. Further, increasingly stringent legislative requirements will change the specification of new buildings, and existing stock that cannot be retrofitted at economic cost to meet more demanding standards will be at risk of value depreciation. Conversely, some more experimental construction techniques and technologies may prove to be unattractive to funders and could negatively impact value.

8.4 When assessing the impact of sustainability on Market Value or in calculating worth to an individual, valuers should be aware of the variation in impact that is likely to arise depending on the type of building, which market sector it falls within, and the profile of potential purchasers or tenants. While some purchasers or tenants are likely to move towards requiring sustainability features based on cost savings, for others less tangible considerations may be of greater concern. In all cases it must be recognised that sustainability is not just a matter of environmental performance. Social aspects, including context, space, security, aesthetics and access to services and amenities, are all important. Currently some, though not all, of these may be routinely included in any estimate of value, but over time they are likely to be of increasing significance, depending on submarket.

8.5 Overall, residential markets can be expected to become increasingly sensitised to sustainability considerations. Therefore as part of establishing Market Value and market rent, residential valuers should seek to keep abreast of trends and ensure that they collect appropriate and sufficient sustainability data when inspecting property, as this will enable them to analyse and apply them to any property valuation.

Suggested reading

European Valuation Standards 9th edition (2020)

Kucharska-Stasiak E., Olbińska K., 2018, *Reflecting Sustainability in Property Valuation - Defining the Problem*, Real Estate Management and Valuation, vol. 26, no. 2, pp. 60-70.

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Sustainable Markets Initiative, *Cleantech Homes: Lower Bills, Healthier Living; Putting new-build cleantech homes at the vanguard of domestic decarbonisation.*

BIOGRAPHICAL NOTES

As part of the Professional Groups and Forums team at RICS, Nigel sits on a number of commercial property-related panels whose function is to shape industry best practice, raise standards and develop policy. He also has joint responsibility for (and input into) the guidance notes, journals, articles and forums produced and managed by these groups.

Nigel comes from a valuation background, having previously worked at Deloitte LLP. He has experience in valuation for secured lending, risk management and governance. Nigel has experience in the financial modelling of institutional investment in the residential sector and development/estate regeneration advice.

He is keen to drive standards within the industry and raise the profile of the RICS with the membership.

Nigel has been previously involved with the RICS in a number of different guises; as a former RICS Matrics UK Chair (2013-2014), the Matrics global representative on RICS International Governing Council (2013-2014) and the Matrics representative on the RICS Nominations Committee (2011-2013).

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APPENDIX

RICS Valuation Standards – Global - VPGA 8 Valuation of real property interests

3 Sustainability and environmental, social and governance(ESG) matters

3.1 Introduction

3.1.1 Potential or actual constraints on the enjoyment and use of property caused by sustainability and environmental factors may result from natural causes (such as flooding, severe storms and wildfires), from non-natural causes (such as contamination) or sometimes from a combination of the two (such as subsidence resulting from the historic extraction of minerals). There may also be sustainability and environmental factors beyond the directly physical, such as carbon emissions. Environmental factors represent only one of the pillars of ESG; guidance on social and governance elements are included in section 3.6 below. When considering each of the three pillars, other stakeholders such as, but not limited to, the client, occupiers and managing agents may need to be consulted.

3.1.2 Despite the considerable diversity of circumstances, the key question is always the extent to which the factors identified affect value. Particular care should be taken when assessing or commenting on ESG factors, as valuers may not have the specialist knowledge and experience required. An increasingly prevalent example of this globally is the assessment of capital expenditure required to meet market and regulatory energy efficiency and decarbonisation requirements by a specific target date. In appropriate cases, the valuer may recommend making further enquiries and/or obtaining further specialist or expert advice in respect of these matters.