Sustainability and residential property valuation
1st edition, information paper

Written with the aim of assisting those undertaking valuations of residential property in the UK, this information paper examines how sustainability is playing an increasingly important role in patterns of economic behaviours and preferences. Reference is made to the main UK legislative and regulatory provisions considered likely to have an impact on residential value, as well as pointing to significant areas of future legislation.

The information paper covers how environmental factors including energy, waste, water and flooding, together with social factors, may influence the value of residential property through design, construction or the ongoing occupational or investment demand for the asset. It informs valuers of how increased awareness of such sustainability factors may work through the marketplace into purchaser or tenant perceptions.

It also includes appendices comprising:
- a background to sustainability related to residential property;
- a sustainability matrix; and
- a glossary.
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It is, however, relevant to professional competence to the extent that members should be up to date and have knowledge of information papers within a reasonable time of their coming into effect.

Members should note that when an allegation of professional negligence is made against a surveyor, a court or tribunal is likely to take account of any relevant information papers published by RICS in deciding whether or not the member has acted with reasonable competence.
1 Scope

1.1 This information paper (IP) aims to help valuers consider sustainability issues and their implications when undertaking valuations of residential property in the UK.

1.2 The IP includes reference to the main UK legislative and regulatory provisions that impact, or are considered likely to impact, residential value, and points to areas of future legislation of other potential significance. It details environmental factors including energy, waste, water and flooding, together with social factors such as accessibility and health and wellbeing. In addition, information is provided on how these and other factors may influence the value of residential property through design, construction or the ongoing occupational or investment demand for the asset.

1.3 It also informs valuers of how increased awareness of such sustainability factors, partly assisted by better data and metrics and other schemes, may work through the marketplace into purchaser or tenant perceptions. This IP also comments on the investigations and considerations that may be relevant when preparing a valuation.

1.4 Appendix A provides a background to sustainability, Appendix B contains a sustainability matrix and Appendix C provides a short glossary.

1.5 This IP should be read in conjunction with the current edition of the RICS Valuation Standards – Global and UK (the ‘Red Book’), however, its scope extends beyond valuations carried out in accordance with the standards. Therefore, those preparing valuations for the purposes of agency are encouraged to take note of this IP.

1.6 This IP was commissioned as part of the Communities and Local Government (CLG) Energy Performance and Value Project, which is concerned with energy performance in the residential property sector in the UK.
2 Introduction

2.1 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. 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. This will enable them to analyse these on a comparable basis and apply them to other valuations. Such data will allow the valuer to make a well-informed judgment on value and to provide clients with appropriate information on which to base their investment or purchase decisions.

2.2 When gathering information valuers may wish to refer to sustainability metrics where available, and to gather specific sustainability information on the subject property. This will contribute to the growth of information and data available in the marketplace. It will also provide a framework for the analysis of comparable properties in order to inform valuations.

2.3 The type, size and location of the property will have a significant impact on value. This includes not only its general desirability from a design point of view, but also the cost and ease of adaptability to incorporate sustainable features, as this can vary significantly between different construction and design types.
3 The role of the valuer

3.1 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. Valuers are referred to the Red Book for definitions of both Market Value and investment value, or worth.

3.2 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. For further information on the latter and new residential conversions of existing dwellings, valuers are referred to the RICS guidance note, Valuation of individual new-build homes (2009).

3.3 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.
4 Defining sustainable buildings

4.1 General characteristics: a ‘triple bottom line’ approach

4.1.1 Sustainability is not a defined term, but there is a broad consensus that it covers a range of social, environmental and economic matters. This three-pronged approach to sustainability is referred to as triple bottom line (TBL) sustainability. For further information, see Appendix A.

4.1.2 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.

4.2 Metrics and measures

4.2.1 In the UK, the principal measure used for residential property to assess the level of sustainability in newbuilds is the Code for Sustainable Homes (CSH) national standard (2006) which is the successor set of metrics to the EcoHomes standard. For existing dwellings the only compulsory metric, which also applies to new homes, is the Energy Performance Certificate (EPC). These metrics are designed to inform those in the marketplace when a property is offered for sale or rent, and increasingly control the aspirations of new-build standards.

Code for Sustainable Homes

4.2.2 The CSH was introduced in 2006 in England, Wales and Northern Ireland to drive a step change in sustainable home building practice. In Scotland, the CSH has not been formally adopted. However, a system of sustainability labelling was incorporated into Scottish building regulations in May 2011 (see www.scotland.gov.uk/bsd). The CSH specifies a rating from Levels 1 to 6 based on nine sustainability criteria. It currently requires all social housing to be developed to a minimum of Level 3, with this standard due to become mandatory for private developments in 2011.

4.2.3 Under the current government plans, the mandatory level for all new homes will increase over time to Level 6, regardless of whether they are private, public or social developments. Valuers are advised to consult the published timescale and should be aware that this is subject to change at short notice. Given the statutory commitment to carbon reduction, it is not likely that incremental code compliance will be abandoned. Although building stock is only replaced at a very low rate each year, it is still important that valuers are aware of the CSH and the associated requirements for achievement of each level.

Energy Performance Certificate

4.2.4 The EPC, which is an EU requirement, is designed to inform a buyer or new occupant about the energy efficiency levels of a property, but they give no information about energy in use. Required to be commissioned whenever a building is first sold or let after the date at which the scheme was introduced, the certificate is then valid for a ten-year period, unless alterations are carried out. It must be produced before contracts are exchanged for any letting or capital transaction. Ranging from A (the highest rating) to G (the lowest rating), it covers aspects such as location, wall construction and size of property, hot water and heating systems and insulation and glazing. This limitation to energy efficiency narrows the focus of sustainability to one aspect and does not address the wider issues of environmental and social aspects of sustainability. The EPC in Scotland differs from that in the rest of the UK. Please refer to www.scotland.gov.uk/bsd for more information.

4.2.5 Although there is little direct evidence that EPCs are having a significant impact on the market, there are indications of increasing market sensitivity to them, particularly in some sub-markets.
Further, concerns have been raised regarding their accuracy and consistency, particularly as a result of the use of default values for non-standard features, which reduces their effectiveness as a metric for comparison between properties. Knowledge and judgment are required to place the EPC within the sustainability context of the property.

4.2.6 Further, while EPCs for existing buildings will be accompanied by a set of recommendations to improve efficiency, valuers should be aware that there is currently no requirement to follow these recommendations, although compulsion may possibly follow. In contrast, EPCs for new-build properties are created through a detailed knowledge of the new-build specification. For both new and existing buildings, the impact of occupier behaviour may subsequently determine whether the property will perform to the EPC rating. UK government has announced an intention within the Energy Bill 2011 that landlords will be prevented from re-letting homes with an F or G rating from 2016, subject to certain exceptions, for example some listed buildings.

Building Regulations, Part L

4.2.7 Part L (Conservation of fuel and power) of the Building Regulations for England and Wales for new homes and renovation of existing homes, was updated in 2010 with a target to achieve a 25% decrease in carbon emissions on the 2006 Part L. Part L is set to increase periodically over the next five years, becoming increasingly stringent in order to meet the target for all new homes to be zero carbon by 2016. This is likely to push up the cost of newbuilds and renovations and may therefore impact value. Further information is given in the RICS information paper, Part L: Conservation of fuel and power (2011). The Building Regulations for Scotland and Northern Ireland, Section 6: Energy of the Domestic Technical Handbook and Technical Booklet F1 (Conservation of Fuel and Power), apply respectively.

4.2.8 Other examples of sustainable residential properties include ‘passive’ houses and those implementing the PassivHaus design. A ‘passive’ house minimises the energy requirements of a building by making the best use of natural factors. The benefit of this approach is fewer or no active mechanical and electrical systems to maintain. However, the success of this approach is highly reliant upon the building orientation and format. The PassivHaus design, although it does incorporate some features of passive design, has the key requirement that the heating and cooling system is met by pre-heating the fresh incoming air. This is an ‘active’ approach which allows more flexibility with design. This system is used quite extensively in some parts of mainland Europe, notably Austria, Switzerland and Germany, and is gaining in popularity in the UK, although it is not yet widespread and so its impact on value may be limited.

4.2.9 In summary, what defines a sustainable building should not be regarded as a static concept. Even if the metrics of the CSH and Building Regulations are adopted, valuers should recognise that they are subject to regular updates which, in turn, change perceptions as to what may be termed ‘sustainable’. Over time, the built stock will always change in condition and specification; what the valuer needs to be aware of is the implication of these changing standards on the value of the subject property. The current metrics are not comprehensive and some major sustainability factors, such as susceptibility to flood, and availability and cost of insurance to minimise its adverse impact, are not included. However, they might be, or become, a major risk or issue not yet factored into market perceptions of value.
5.1 Introduction

5.1.1 Any consensus on what constitutes a sustainable building is constantly changing as understanding of the significance and impact of varying attributes continues to develop and evolve. Furthermore, different stakeholders in a property will have different views on what the key factors are that make a building sustainable, based on their individual needs. This section focuses on the main aspects of assessing sustainability, but it should be noted that continued development of knowledge and understanding of sustainable building features is imperative for valuers to keep up to date.

5.2 Collecting evidence: inspection and other investigations

5.2.1 The extent of the inspection and investigation will be agreed with the client, and the valuer may also wish to undertake desk research. The valuer should be satisfied that sufficient information is held to enable him or her to make an informed judgment and provide sound advice to the client. Information may have been provided through the valuer’s due diligence processes and must be subject to appropriate verification. The valuer should also consider the requirements of UK Appendix 10, paragraph 3.7, of the Red Book. Data should, wherever appropriate, be collected for future comparability even if it does not have an impact on value at present.

5.3 Key environmental risks

5.3.1 There are many environmental risks that may affect a property. The issue of contamination of land or materials has long been recognised and is now routinely built into the assessment of property characteristics. More recently the issues of energy efficiency measurement and statutory requirements to move towards establishing a low-carbon society are now identifiable risks. The valuer is therefore advised to note upon inspection the specification and performance of the property with regard to both energy efficiency and carbon emission. Similarly, during the inspection or as part of desk research, it is recommended that information about flood risk and management, water conservation and waste management facilities is collected.

5.3.2 Flooding is a common environmental risk. Following the severe flooding episodes experienced in widely differing locations within the UK over recent years, the exposure of a property to potential flooding is a significant concern and can impact the client’s ability to obtain insurance or, in the event of destruction, to rebuild. While in some locations flood risk is routinely built into valuations, the increasing incidence of floods and storms has significantly increased the number of dwellings at risk. This risk, in turn, has increasingly been linked to both the cost and availability of insurance cover and, consequently, mortgageability.

5.3.3 Other environmental risks may include susceptibility to subsidence caused by increasing drought risk and, in the extreme, earthquakes and tornadoes. The valuer should ensure that up-to-date information on key risks is gathered and considered when comparing the subject property to others used as part of the evidence base.

5.3.4 More detailed information on contamination and environmental matters is given in the RICS guidance note, *Contamination, the environment and sustainability: implications for chartered surveyors and their clients*, 3rd edition (2010).

5.4 Design and configuration

5.4.1 As the transaction costs of moving rise, people wishing to purchase or rent long-term may increasingly seek property that is adaptable to their changing needs over time. This will be more likely for capital transactions. In particular, with an aging population, the ability to use or adapt a property successfully for those with limited mobility or other disabilities is likely to become more important. Modern design standards, therefore, are placing emphasis on ‘one life living’ standards.
Flexible and easily adaptable living spaces that can accommodate occupants at every stage and for every part of life, including working from home, are now desirable and enable demand for a property to be maintained over time. Features such as straight flight stairs which can be adapted to stair lifts; wide doorways; low lip showers and data communication to support home working are examples of features that support different living requirements.

5.4.2 The design and configuration may also contribute to the resource efficiency of the home. For example, new properties that are configured to maximise the use of natural sunlight and increase energy efficiency reduce the need for additional heating and can enhance the user comfort of the property. This is also now widening to include water and waste efficiency, as well as the durability of materials such as flooring and kitchen units. The effect of the building on the health of the occupants (for example, sick building syndrome) and user comfort may also be considered. However, it is most likely to be influential on value for properties in the higher end of the market.

5.5 Construction materials and services

5.5.1 The current and potential sustainability level of homes in the UK will vary considerably, depending on the type of dwelling and its construction. Some homes can be brought up to high sustainability standards with ease using relatively simple cost effective methods, while for others it will be much more difficult and cost intensive. The appropriateness of different types of sustainability features will also vary for each type of home. Valuers will want to familiarise themselves with this information so that they can make an informed judgment as to whether a particular sustainability feature is suitable and whether it has a negative or positive impact, if any at all, on value. As an example, Appendix B provides a matrix of the type of technologies that can be introduced to improve energy and carbon performance. It should be noted that depending on the type of structure, some technologies are more likely to be cost effective than others.

5.5.2 A major consideration within the CSH is the use of sustainable materials, such as local materials and timber from renewable sources. Given that valuers will be predominantly concerned with existing stock, the sustainability credentials of the construction materials are not likely to be highly relevant to value, except where the construction is such that it affects the ability to obtain buildings insurance or the flexibility of the structure to allow for alteration and adaptation or withstand storms. A property that is of poor build quality, and/or requires excessive maintenance throughout its life cycle, is unsustainable in both environmental and economic terms and this may well impact on value.

5.5.3 Of relevance may be the level of thermal mass insulation, the ability and cost to upgrade this where possible, and the standard of glazing. These issues, some of which will be reflected in the EPC rating, are potentially important to value, as the cost and complexity of upgrading them will vary considerably depending on construction, age and context of the building. Great care should be taken when assessing the impact on value as inappropriate interventions, such as replacement windows that do not fit the aesthetic of the area, may reduce – not enhance – value despite any increase in energy efficiency. Similarly, the installation of new technologies, such as photovoltaics, should be taken into account as they may be an inefficient model or incorrectly installed, and may only hold some value for a certain period as the product ages. The introduction of Feed-in Tariffs (FITs) for the production of energy via solar panels has reduced the payback period of this technology and so, if present, the impact of this on value should be considered.

5.5.4 As designers seek to improve the environmental and design performance of houses, new systems of construction are being developed together with a move towards offsite manufacture (OSM). One such system which is gaining in popularity is the PassivHaus (see paragraph 4.2.8). This system seeks, through the use of mechanical ventilation systems and high levels of air-tightness, to enable a building to maintain stable internal conditions over a very wide range of external temperatures.

5.5.5 In pursuit of reducing the environmental impact of properties, some individuals are experimenting with other forms of construction, such as the use of rammed earth construction or construction from waste products (e.g. old car tyres), together with environmental waste systems (e.g. composting WCs). To assist the valuation
of such properties, specialist advice to assess performance and durability may be required. Valuers should also bear in mind that purchasers may be wary of unusual technologies and this could, in some instances, negatively impact on both the time taken to sell and the price achieved.

5.5.6 Under the Design and Quality Standards (Homes and Communities Agency (HCA), 2007) it is required that affordable housing should cover three broad areas: internal environment, sustainability and external environment. These requirements are more rigorous than the general Building Regulations and, depending on how they are implemented, may result in lower maintenance and refurbishment costs.

5.5.7 Any arrangements for local energy generation and the likely efficiency of heating installations should be noted. With potential electricity and gas shortages in the future, the flexibility of infrastructure, such as via a heating supply backup and onsite energy generation, may become increasingly important. Very few domestic dwellings are currently designed with air cooling or conditioning systems, but with more extreme weather conditions predicted for the future, such systems could become part of the expected specification for some high value properties. In addition, if less thermally efficient properties also require air cooling, this will only increase the amount of energy used. Other features, such as enhanced insulation, are likely to be sought to lower the solar gain in order to minimise the amount of energy needing to be used.

5.5.8 In the future, valuers may increasingly encounter properties that have been designed with district heating systems, which up until now have been the exception rather than the rule. These systems may range from two properties heated by one small boiler, to hundreds of properties heated by one large central plant. Hitherto usually owned by one landlord, it is becoming more common to provide a network to heat a number of properties within separate ownership. By spreading the initial capital outlay over a number of properties, this speeds up the payback period and enables profit to be made on the sale of heat to the end user.

5.5.9 Other new technologies, such as photovoltaics and solar panels, should be considered within the context of the local market. This technology is developing and changing rapidly and, although some systems have stabilised in specification, many are becoming still more advanced, efficient and cheaper. As a result valuers should be aware of the differences in the technology available, as well as any financial incentives or grants associated with the technology. They should also be aware that not all new technologies are successful, and in some submarkets, prospective occupiers and purchasers may actively avoid properties with technologies that they consider to be unproven.

5.5.10 Water saving and reuse systems may be material when considering value. Systems such as rainwater harvesting and grey water reuse may be installed, however, their payback and cost savings will be dependent on the type of dwelling and the type of system installed.

5.5.11 For new developments, particularly flatted developments and properties without gardens and composting facilities, the provision of waste collection and recycling is becoming increasingly important with the rising costs of sending waste to landfill.

5.6 Location and accessibility considerations

5.6.1 Location is particularly important for residential property, and the rise of the sustainability agenda increases the relevance of some aspects of location. For example, accessibility to public transport (including alternatives in cases of disruption) may become more significant as employers restrict employees’ ability to park – free of charge or at all – at the workplace through the introduction of green travel plans. This may be of greater importance for property situate outside the major conurbations where commuting is more likely to be car-based.

5.6.2 Also of general importance is location in respect of services and amenities such as schools (all the more so where local demand for places is high), health services, and sports and recreation facilities, including open space.

5.7 Fiscal and legislative considerations

5.7.1 There are few financial incentives for owners to undertake improvements to their property to better its sustainability credentials, although
the introduction of FITs has marked the start of potential schemes. Stamp duty land tax has been adjusted to allow for zero-carbon homes selling for not more than £500,000 to be exempt, though for the first transaction only. Various proposals have been put to government of other measures to influence buyer behaviour, such as differential council tax payments. Although such measures have not been introduced, valuers should be alert to the possibility of their introduction in the future.

5.7.2 One proposed new scheme that is likely to proceed certainly has potential implications for value. The Green Deal, put forward by the Department for Energy and Climate Change in 2010, proposes that home owners will be able to implement energy-saving technology at no upfront cost, and then pay for the improvements through the energy bill, thereby encouraging the uptake of energy efficiency improvements.

5.7.3 There is currently no legal requirement on owners to upgrade their property, unless they wish to carry out an extension or other work requiring Building Regulation approval. However, the Green Deal proposes to introduce new legislation that confers a legal obligation on the landlord to comply with reasonable requests from their tenants for energy efficiency improvements, where financial support is available. It also puts forward the ability for local authorities to incorporate policies into their local development plans. These plans must require new buildings to make use of low or zero carbon generating technologies in order to reduce a specified and rising proportion of greenhouse gas emissions.

5.9 Management and leasing issues

5.9.1 There are a number of management and leasing factors that could affect the value of flatted or single let units. In the case of flats, blocks that have good sustainability performance, notably low energy consumption, may benefit from lower running and maintenance costs and therefore lower service charges. Not only will this likely make the units more marketable, but it could also have an impact on rental or capital values, or both.

5.9.2 The terms of the lease, with regard to the payment of utility bills, are also likely to become more significant. Where tenants are on bills-inclusive leases, they will not gain from utilising sustainability features. However, those tenants responsible for paying the utility bills are more likely to favour sustainability features which will reduce their bills, and as a result these properties may gain preference in the market.

5.9.3 One of the major leasing and property management issues is that of split incentives. Many of the benefits of sustainability features are realised by the tenants. The benefits to landlords of making improvements to their properties will only be realised if tenants are prepared to pay additional rent, or if there is evidence that such properties will command a more attractive yield in the marketplace. Until such return can be demonstrated, there may be little incentive for landlords to undertake improvements. However, often tenants will neither be able to afford the work nor have the security of tenure sufficient to justify amortising the cost over the occupation period.

5.10 Social considerations

5.10.1 Sustainability is not purely about environmental issues; there is a strong social dimension as well. Within the residential context, considerations such as ambience and the appropriateness of the property to its environmental context are currently fully reflected within value. However, aspects such as the
The installation of security systems may not have previously featured within the list of fittings or specification that impact the value of a property. Where valuers do consider that such systems may add to a sense of wellbeing, it should be noted and potentially taken into account within the valuation.

5.11 Purchaser and tenant considerations

5.11.1 There are three identified types of purchaser that are likely to give consideration to sustainability features when considering value. They are:

- ethical consumers and early adopters, who are often driven by carbon-saving motives, with cost savings being seen as a secondary benefit;
- first-time buyers and those at the low end of the market, who may be generally aware of sustainability and energy efficiency, but tend to have low disposable income and are likely to be motivated by reduced running costs; and
- older/retired movers, who tend to have high levels of equity in their homes, but are income poor, likely to focus on reducing running costs and possibly looking to downsize or release capital through equity release.

5.11.2 Due to the short nature of most leases many tenants have little concern for sustainable features. However, in the lower end of the market where disposable income is low, tenants may give consideration to features that affect running costs, such as the energy efficiency of boilers and heating systems, lighting, windows and insulation, and white goods.

5.11.3 The valuer takes into account the attitudes of the market towards sustainability and their impact on value. With the rise of the ‘ethical consumer’, buyers at the high end of the market may look for sustainable features that marry up with their beliefs. Energy efficiency, renewable sources of heat and power, and even space for some personal food production may be key features for these buyers. As they have less cost constraints, they may not be as concerned with the cost reduction so much as the environmental impact of such features.

5.11.4 However, an owner-occupier at the lower value end of the market may choose a sustainable property due to the financial savings that accompany energy efficiency, or the grant support for improvements that a property may attract. The more intangible sustainability aspects, such as user comfort, natural light and usability of space, may also be considered. As awareness of sustainability factors increases among both owner-occupiers and tenants, the effect on value is likely to become more apparent and the volume of market evidence to inform and support valuer judgment will increase.

5.11.5 As occupiers start to prioritise sustainability features in their property purchase and renting decisions, this will feed through to lenders who seek secure property investments and want to avoid value discounting of unsustainable property. This could come through their lending rate, with less risky sustainable properties benefitting from higher loan to value ratios or lower lending rates. As an example, flood risk is increasing with changes in climate and greater density of build. This will have an impact not only on insurability, but also on the ability to raise mortgage finance.

5.12 Lender and investor considerations

5.12.1 The agenda for investors will differ from those of owner-occupiers or tenants. Where the property to be valued is likely to be sold to an investor, valuers should consider not just those elements of sustainability that may influence the time taken to let or re-let a property, but also the likely impact on the level of rent achievable. The level of sensitivity of sustainability upon these aspects will relate not only to the submarket (see paragraph 5.11.1) and the location (greater influence in low value locations is likely), but also to the market conditions. Where supply is plentiful in relation to demand, the impact of, for example, a poor EPC rating will be more pronounced.

5.12.2 Valuers should also be aware that in the longer term, dwellings with poor EPCs may be prevented by law from being re-let without works taking place to upgrade them. This could negatively impact the future economic life of such buildings and will, in time, be reflected in Market Value.

5.12.3 Therefore, it is likely that investors in residential property may increasingly see poor environmental and social performance as an
investment risk. As occupiers are becoming more aware of the energy efficiency of their homes, investors may (as in the commercial sector) see potential benefits of sustainability in the areas of reduced void periods and reduced expenditure outside of the usual refurbishment schedule.

5.12.4 Where investors depend on borrowed funds for the purchase of investment property, they will need to consider the position of available finance. If lenders continue to be risk adverse, they may start to enquire about the sustainability attributes of property, particularly the key risks of flood and energy performance, before agreeing the loan in principle or the loan-to-value ratio.

5.12.5 In summary, from an investor’s perspective, properties that are subject to environmental risk or are in a setting less strong in generating social wellbeing may suffer increased obsolescence. They may also experience potential increases in void periods and running costs in comparison to other, more sustainable properties, which may result in loss of value.
6 Reflecting sustainability characteristics in the valuation

6.1 Introduction

6.1.1 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.

6.1.2 For guidance on valuing social and affordable housing, see the RICS guidance note, Valuation of land for affordable housing (2010), and Valuation Information Paper (VIP) 12, Valuation of development land (2008). Affordable housing is a specialist area of valuation work and encompasses a range of property solutions in both the social housing and public sectors. Valuers who undertake such work should ensure that they are aware of the particular remit of the owners, many of whom work to high social sustainability standards. They should also be aware that some social housing, provided as part of section 106 planning obligations, may not necessarily be of high specification, and this could have a material impact on their resilience to sustainability issues.

6.2 Impact on value: potential premium versus discount

6.2.1 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. The sustainability matrix in Appendix B provides a guide on the likely significance of some commonly included sustainability features. However, valuers should not rely on this but 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.

6.2.2 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.

6.2.3 Residential sustainability metrics may not currently be viewed as important in the market due to a combination of a lack of ratings and possible inaccuracies. However, as those operating in the marketplace develop their knowledge and government evolves and expands its policy and regulations, an increasing emphasis may eventually be placed on sustainability ratings. This is a real possibility if residential investors follow in the footsteps of commercial investors and begin to see corporate social responsibility (CSR) and the sustainability of their residential portfolio as growing business priorities.

6.3 Analysing comparable evidence in light of sustainability issues

6.3.1 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.

6.3.2 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.

6.3.3 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.

6.3.4 When assessing the extent to which sustainability impacts value, there are some specific issues to consider, which are covered in paragraph 6.6.2.

Impact of sustainability on rent and rental growth

6.3.5 Many tenants are very cost conscious, so a property with a good EPC rating and a demonstrable capability to be run economically is likely to be favoured. Over time as energy costs increase, a differential adjustment on grounds of energy, water and waste disposal costs may become more apparent. Properties that are poorly insulated, expensive to heat and are without water conservation and waste compaction or composting facilities will gradually become less attractive to tenants. For tenants of high value units, notably company lets or those for high net worth individuals with several homes, cost saving will not prima facie be such an issue, but image may well be. With multi-let properties where tenants pay service charges, the impact is likely to be felt more quickly as itemised costs bring the issue into sharp focus. Therefore, when valuing residential investments not only the impact on current rental levels, but also the potential to affect rental growth, should be considered.

Impact of sustainability on capital value

6.3.6 With the majority of residential stock in the UK being owner-occupied, assessing the impact on capital value may not be straightforward. In Scotland, EPCs are prepared before a property is marketed, potentially enabling purchasers to utilise this information in their decision-making process. In the rest of the UK, EPCs are normally prepared too late in the transaction process to have any real impact on purchase decisions. However, no matter when the EPC is prepared, it is currently widely considered that the document has made no significant impact on property pricing. The purchase decision is related to many other factors and, while running costs and energy efficiency are beginning to appear on the agenda of many purchasers, for most this is not a ‘deal maker or breaker’ issue.

Marketing period to sale and to let

6.3.7 The presence of sustainability characteristics may affect not only the sale price or rent but also the length of time it is likely to take to sell or let the property. In times of supply shortage, this impact is unlikely to be much. However, in localised conditions where supply outstrips demand, properties which are energy efficient, adaptable and offer a comfortable environment are likely to sell more readily.

Ability to finance

6.3.8 Many valuations of residential property will be undertaken for secured lending purposes. Even where a valuation is not for this purpose, the valuer will bear in mind whether the property is one that is normally purchased with the aid of borrowed funds. The key consideration in relation to finance availability may still be the structure of
the property, as many lenders have traditionally been slow to embrace new technologies until they are well tested in the marketplace and are proven to be easily marketable. This could affect, for example, properties built of unusual materials, such as rammed earth or other eco-techniques, or with proprietary off-site manufacture systems. Furthermore, material exposure to flood is an identified financial risk in some areas.

6.3.9 The government has announced an intention to set up a green investment bank aimed at facilitating finance provision to encourage energy efficiency and low carbon projects. While this is currently geared towards investment in large scale schemes such as power stations, it may see the emergence of preferential loans for sustainable property, which, in turn, could make such property more attractive in the marketplace.

Economics of retrofitting and the impact of incentive schemes

6.3.10 Given the changes in legislation and building control measures, there is likely to be an increasing performance differential between the specification of new buildings and those of existing stock. In such cases valuers should be mindful of the additional costs that any buyer might face in bringing a property up to the new enhanced standards. The presence of subsidy schemes, such as insulation grants, and incentives, such as the FITs or proposed Green Deal, may significantly reduce the capital costs of undertaking improvements. Where the property is likely to attract an owner-occupier this may be a material consideration in terms of value. However, to the investment landlord, such incentives are less likely to be of significance as the consequent revenue benefit will fall to the tenant. Therefore, unless rental differentiation can be evidenced, no capital value impact of such schemes may occur. The capital cost likely to be incurred should always be considered in relation to the payback period and the property type. Appendix A provides an illustrative matrix of the possible technologies that may be suitable for a range of differing residential types.

Impact of property age and type

6.3.11 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.

6.4 Market sector and subsector

6.4.1 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 (see also paragraph 5.11).

6.5 Market Value and investment value or worth

6.5.1 For a market in transition in which some sustainability factors may not be transparent within Market Value but may be identifiable as risks moving forward, there is likely to be a difference between Market Value and investment value, or worth, to an individual. For the former, only those characteristics that can be quantified through objective and rigorous analysis of comparable evidence will be included. However, for the latter a discounted cash flow (DCF) approach, in which the risks and likely returns for a specific purchaser can be explicitly incorporated, may be appropriate. Within it, sustainability characteristics can be expressly considered in relation to rent, rental growth, voids, projected outgoings (including refurbishment costs) and any risk premium to be included within the discount rate, in all cases subject to justification.

6.6 Key questions for valuers

6.6.1 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.

6.6.2 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’.

6.6.3 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 Conclusion

7.1 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.

7.2 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.

7.3 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.
SUSTAINABILITY AND RESIDENTIAL PROPERTY VALUATION

1. The publication of the Brundtland Commission report (World Commission on Environment and Development, Our Common Future, Oxford University Press, Oxford, 1987, available at www.un-documents.net/wced-ocf.htm) brought sustainability into the spotlight. It is now a well-recognised concern among legislators and policymakers. The importance of adopting measures that seek to maintain economic growth and stability, while ensuring the protection of the environment and the enhancement of social equity (collectively known as the triple bottom line), is widely embraced by both public and private organisations, including RICS.

2. Environmental matters mean that some properties are more resilient than others. This is particularly apparent with regard to flooding, and in recent years severe flooding has become more common. As a result, properties that have been flooded are being seen as increasingly unattractive and as such may have suffered from falling relative values.

3. The majority of the housing stock to be valued is existing and pre-dates most modern legislation. Such housing is also likely to remain for the foreseeable future, so the ability for a building to be adapted and updated may be important. This factor produces differential risks depending primarily on location and property construction type. The sustainability matrix in Appendix B gives more information on this aspect.

4. While repair and facilities are built into valuation, the sustainability related issues of key concern that are not routinely factored into valuations, but have implications for value, are:

- energy – e.g. source of supply, insulation and draught proofing, boiler efficiency, appliance efficiency, glazing, construction detailing;
- water – e.g. water efficiency, grey water recycling facilities;
- waste – e.g. waste recycling; and
- flood and storm resilience – e.g. location and susceptibility to flood and surface water run-off damage, construction and resistance to high winds and frost, or drought damage.

5. Through the Climate Change Act 2008, the UK government has set statutory targets for 2020 and 2050 to reduce carbon emissions by 34% and 80%, respectively, based on 1990 levels of emissions. As dwellings are estimated to contribute some 27% of all carbon emissions, to meet their target of zero-carbon new homes by 2016, the government is implementing new legislation and policies that take steps towards achieving these targets.

6. The target for housing is that by 2016 all new homes will be constructed to be zero-carbon in use, though not in their construction. This target is measured as a Level 6 in the CSH. The CSH awards a rating from 1 to 6 based on nine sustainability criteria: energy (including CO₂ emissions), water, materials, surface water run-off, waste, pollution, health and wellbeing, management, and land use and ecology (see paragraph 4.2.2). A Level 1 home, the entry level, represents a 10% improvement over Building Regulations standards. However, a Level 6 home would be equivalent to a zero-carbon home in terms of use (though not construction), or a 150% improvement over Building Regulations, as it includes not only regulated energy but also energy used for household appliances. Mandatory CSH levels are being incrementally introduced, with currently Level 3 being the minimum for new-build social housing in England and Northern Ireland, although adoption of the CSH for new-build private housing remains voluntary. For more information, see the CLG website: www.communities.gov.uk.

7. On top of the UK government’s targets, the Scottish government has set additional emissions reduction targets through the Climate Change (Scotland) Act 2009. The CSH has not been formally adopted in Scotland, but there is a system of sustainability labelling incorporated in Scottish Building Regulations, Section 7: Sustainability. This section has four levels: bronze, silver, gold and platinum. In relation to CO₂ emissions, bronze

Appendix A: Background to sustainability related to residential property
represents meeting the 2010 Building Regulations and platinum represents net zero-carbon. Silver and gold are intermediate levels. For further information, see www.scotland.gov.uk/bsd

8. Further, in 2010 Part L of the Building Regulations England and Wales (Conservation of fuel and power) was updated in order to increase the energy efficiency of new homes by 25% over the 2006 Part L Building Regulations. To achieve these ambitious targets, the government may introduce increasingly tighter regulation for new homes. Therefore, valuers should ensure that they keep up to date on new initiatives and their impact on the market. While the legislation is only for newbuilds, inevitably these changing standards may affect the value of older stock, causing it to become obsolete more quickly or require retro-fitting. Similarly in Scotland, the Building Regulations, Section 6: Energy was updated in 2010 to call for a 30% reduction in emissions over the 2007 standards for dwellings.

9. Social considerations are often of high importance to residential occupiers, and valuers may already be taking these factors into account, for example, in relation to properties situated in gated developments. Social considerations can go beyond the specific property itself to include sustainable communities where people want to live and work – now and in the future.

10. From an investor and lender point of view, social factors could be just as influential on value as environmental factors. If the occupier of a rented home benefits from high levels of user comfort, feels safe and has access to desirable amenities, including public and/or private open space, they are more likely to want to stay in the property. This could, in turn, decrease tenant turnover and void periods, resulting in reduced expenditure and risk, and increased income.

11. Over recent decades the percentage of owner-occupied property has risen significantly. More recently, however, this trend has been in reverse with the growth in the last decade of buy-to-let and social and affordable housing provision. Each sector will have differing perceptions as to the relevance and impact of sustainability on its property holdings.

12. The owner-occupied sector of the market is likely to be more influenced by the sustainability, or at least the energy efficiency, of homes. Owner-occupiers tend to live in a property for an average of 12 years, which gives them the potential opportunity to install sustainable measures and receive at least some financial benefits over the entire payback period. It is important to note that owner-occupiers may prefer to improve the sustainability characteristics of a property themselves, rather than buy a ready-made sustainable home, therefore potentially impacting the value of new-build sustainable homes. In addition, many sustainability features have a longer-term payback period, which means that decisions have to be justified on terms other than revenue return. Therefore the decision is usually based on personal commitment, or the hope (which currently may not be provable) that capital value increase will result.

13. As with any aspect of a property, different sections of the owner-occupier market will have different perceptions. The high-end owner-occupier may not be concerned with the potential cost savings available from energy efficiency, whereas the decisions of first-time buyers are likely to be affected by cost revenue issues (see paragraph 5.11). Valuers should consider the profile of buyers in the subsector of the market, their perceptions of sustainability and the impact of sustainability on them in order to establish the relevance of varying sustainability features to value.

14. Recent research has suggested that more than a fifth of private rented homes are very energy inefficient (with an energy rating of the two lowest possible grades). With tenants paying the utility bills and demand outstripping supply in many areas, landlords are not incentivised to install sustainable features in their properties. Even where a private rented property is let on a bills-inclusive basis, ultimately it is the tenant that determines how much energy is used, as even the most energy-efficient home can be inefficient in use. This does not provide a very strong incentive for the landlord. Similarly, tenants are not going to invest in sustainable features for the property, as they may only be there a year and would not gain the benefit over the full payback period. Therefore currently there seems to be little incentive for landlords or tenants to install sustainability features. However, under new proposals the government is seeking to bring social housing up to a ‘decent homes’ standard, which may impact the sustainability levels of social housing.
Appendix B: Sustainability matrix

The principles behind the sustainability matrix presented in this appendix are adapted from *Sustainable Refurbishment of the Existing Housing Stock* (Housing Forum, 2009). The table gives an indication as to the potential suitability of a group of technologies for a range of housing types. The list is not exhaustive and the table is purely indicative. In addition, the cost effectiveness, payback period and suitability for most technologies will vary greatly, depending on the building type, age, location and orientation, as well as other considerations.

Valuers without specialist knowledge should consider advising clients to consult specialists before undertaking or recommending on the appropriateness of these technologies other than in general terms.

### Sustainability matrix of improvable features (not exhaustive)

<table>
<thead>
<tr>
<th>Period detached</th>
<th>1950s semi-detached</th>
<th>Tenement/low-rise top floor flat</th>
<th>Period terrace</th>
<th>High-rise mid-floor flat</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(a) Energy and carbon</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• low energy light bulbs</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• hot water tank insulation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• heating controls, i.e. thermo-static radiator valves (TRVs), programmers and thermostats</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• new gas condensing boilers</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• loft insulation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>• cavity wall insulation</td>
<td>✓</td>
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<tr>
<td>• external wall insulation</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>• internal wall insulation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>• floor insulation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>• photovoltaic panels</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• solar thermal evacuated tube</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td><strong>(b) Water and waste</strong></td>
<td></td>
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<tr>
<td>• water saving devices</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>• dual flush loo</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>• rainwater harvesting</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>• waste compactor</td>
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<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td><strong>(c) Social</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• security measures</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• double glazing</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• noise reduction</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• external appearance matches age of building</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Included in this glossary are both terms referred to in the information paper and other commonly used terms that the valuer may encounter when undertaking desk research or investigations to support their residential valuations.

For further defined terms relating to sustainability please refer to the RICS Global Glossary of Sustainability Terms (2010), which can be found at www.rics.org/sustainability

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building Research Establishment Environmental Assessment Method (BREEAM)</strong></td>
<td>The BREEAM family of assessment methods and tools are designed to help construction professionals understand and mitigate the environmental impacts of the developments that they design and build. All the BREEAM products are regularly updated to take advantage of new research and technology to reflect changing priorities in Regulations and to ensure that BREEAM continues to represent best practice.</td>
</tr>
<tr>
<td><strong>certified building</strong></td>
<td>This is a building that has achieved a certification under a recognised rating system (e.g. BREEAM) as displaying sustainability characteristics. It should be recognised that these schemes may not be directly comparable with one another and most have differing grades of certification.</td>
</tr>
<tr>
<td><strong>Code for Sustainable Homes (CSH)</strong></td>
<td>This code was introduced in 2006 and sets out six levels (Level 6 being the highest) of environmental and social performance of new-build properties across a range of nine key criteria. The code has already been altered once and may continue to evolve. It is being phased in as mandatory with the eventual intention of mandatory Level 6 being achieved for newbuilds by 2016. The CSH has not been formally adopted in Scotland, and instead there is a system of sustainability labelling incorporated in Scottish Building Regulations (see <a href="http://www.scotland.gov.uk/bsd">www.scotland.gov.uk/bsd</a>).</td>
</tr>
<tr>
<td><strong>Energy Performance Certificate (EPC)</strong></td>
<td>The EPC is a measure introduced across EU member states under the European Energy Performance of Buildings Directive (EPBD, Directive 2002/91/EC) to help improve the energy efficiency of buildings. It measures the asset rating of a building in terms of its energy performance and must be produced the first time that a building is let or sold from the date of implementation of the Directive. The EPC is accompanied by an advisory report that sets out recommendations for improving the building’s energy rating. The EPC in Scotland differs than that in the rest of the UK. For further information, see <a href="http://www.scotland.gov.uk/bsd">www.scotland.gov.uk/bsd</a></td>
</tr>
<tr>
<td><strong>PassivHaus, or Passive House</strong></td>
<td>These two terms are used interchangeably for a building design system, originating from Austrian design, which has the key requirement that heating and cooling systems are met by pre-heating fresh, incoming air. It works on the basis of ‘sealed box’ technology with complete air-tightness.</td>
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<td><strong>offsite manufacture (OSM)</strong></td>
<td>This refers to any system-built process aimed at reducing the amount of construction on-site. It can reduce cost and waste, and generally reduces the likelihood of operative accidents.</td>
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<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>sustainable community</strong></td>
<td>This term has had various definitions, but generally is taken to be ‘places where people would wish to work, live and play’. Increasingly the concept of sustainable communities is driving land use policies. The Scottish government launched the Scottish Sustainable Communities Initiative (SSCI) in June 2008 to encourage the creation of places, designed and built to last, where a high quality of life can be achieved (see <a href="http://www.scotland.gov.uk">www.scotland.gov.uk</a>).</td>
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<td><strong>sustainable development (Brundtland definition)</strong></td>
<td>The Brundtland Commission (1987) defined this term as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’. While not universally accepted, this definition is widely adopted and used as the basis for the development of national and international policy.</td>
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<td><strong>triple bottom line (TBL)</strong></td>
<td>The TBL developed from ideas contained within the Brundtland Commission’s definition of sustainable development, which recognises that sustainability comprises the need for balancing environmental protection with promoting social justice and equity, and with the pursuit of economic growth.</td>
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<td><strong>Vancouver Valuation Accord</strong></td>
<td>The Vancouver Valuation Accord (VVA) takes its name from an international accord signed in Vancouver in 2007 by several leading professional bodies that each entered into a commitment to work towards embedding sustainability within valuation practices and thereby ‘mainstreaming’ sustainability. The VVA is the leading international group developing a coherent inter-professional understanding of the relationship between sustainability and real estate values.</td>
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Sustainability and residential property valuation
1st edition, information paper

Written with the aim of assisting those undertaking valuations of residential property in the UK, this information paper examines how sustainability is playing an increasingly important role in patterns of economic behaviours and preferences. Reference is made to the main UK legislative and regulatory provisions considered likely to have an impact on residential value, as well as pointing to significant areas of future legislation.

The information paper covers how environmental factors including energy, waste, water and flooding, together with social factors, may influence the value of residential property through design, construction or the ongoing occupational or investment demand for the asset. It informs valuers of how increased awareness of such sustainability factors may work through the marketplace into purchaser or tenant perceptions.

It also includes appendices comprising:
- a background to sustainability related to residential property;
- a sustainability matrix; and
- a glossary.