

# The future of the Code for Sustainable Homes

## Making a rating mandatory



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*Making a rating mandatory*

Consultation

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## Summary

The Code for Sustainable Homes (the Code) provides a comprehensive picture of the sustainability of a new home. It can be used by progressive home builders to differentiate the performance of their homes from the performance of others and gives consumers the information they need to be able to make sustainable choices.

From January 2008, Energy Performance Certificates (EPCs) for new homes will ensure that every purchaser has information about the energy efficiency of their home and practical suggestions for making it even more efficient. The Code builds on this in two important ways.

**It provides a framework within which home builders can be recognised for going beyond current Building Regulations on energy efficiency.**

Because all new homes already reach a high level of performance on the EPC scale, even big improvements on top of current Building Regulations don't register significantly. The energy element of the Code is based on percentage improvements over Building Regulations so big improvements will be clearly visible.

**It sets standards for a wide range of other aspects of sustainability which are not mandatory in the Building Regulations but are critical to limiting the environmental impact of housing.**

As well as Energy, the Code covers other key aspects of sustainability including water, pollution, waste, materials, and ecology. For all elements, it provides guidance on how home builders might achieve high standards in these areas and gain the credit for doing so.

The Code was introduced as a voluntary standard in England in April 2007. It works by awarding new homes a 1 to 6 star rating based on their performance against the nine sustainability criteria and therefore their overall environmental impact.

At the same time as we announced the introduction of the Code as a voluntary standard, we consulted on the principle of making it mandatory for all new homes to be rated against the Code. This would not mean that every home would have to be assessed against the Code or that they would have to reach certain star ratings by certain dates. It would simply ensure that every new home owner would know whether their home had been built to higher environmental standards than the Building Regulations and if so what standards it met.

We proposed doing this to provide a further boost to the uptake of the Code – having to show how their homes perform against the Code will encourage home builders to consider building to its higher standards and making this information routinely available will encourage consumers to become more demanding.

Consultees strongly supported this, with 61 per cent in favour and only 8 per cent opposed. This consultation is the next step in determining whether to proceed with this proposal and asks specific questions about how a mandatory rating would work.

In addition, this consultation invites views on whether we should make the Lifetime Homes standard a mandatory element of the Code at progressively lower star ratings over time. Lifetime Homes aims to make living in a home as easy as possible, for as long as possible, through thoughtful design.

# Part 1. Introduction

## Background to the Code for Sustainable Homes

The Code for Sustainable Homes (the Code) was introduced in England<sup>1</sup> in April 2007 following extensive consultation with environmental groups and the home building and wider construction industries.

The aim of the Code is to improve the overall sustainability of new homes by setting a single national standard within which the home building industry can design and construct homes to higher environmental standards, and giving new homebuyers better information about the environmental impact of their new home and its potential running costs.

From January 2008, Energy Performance Certificates for new homes will ensure that every purchaser has information about the energy efficiency of their home and practical suggestions for making it even more efficient. The Code builds on this in two important ways:

- It provides a framework within which home builders can be recognised for going beyond current building regulations on energy efficiency – because all new homes already reach a high level of performance on the EPC scale, even big improvements on top of current Building Regulations don't register significantly. The energy element of the Code is based on percentage improvements over Building Regulations so big improvements will be clearly visible.
- It sets standards for a wide range of other aspects of sustainability which are not mandatory in the Building Regulations but are critical to limiting the environmental impact of housing. As well as energy, the Code covers other key aspects of sustainability including water, pollution, waste, materials, and ecology. For all elements, it provides guidance on how home builders might achieve high standards in these areas and gain the credit for doing so.

Designing and building to the Code has already begun. Large parts of the social sector have already committed to building to certain Code levels, as set out in Box 1 overleaf. But the Government is committed to encouraging its uptake across all home building, including home building in the private sector.

To encourage uptake as much as possible, we asked, in the consultation document *Building a Greener Future: Towards Zero Carbon Development*<sup>2</sup>, whether providing a rating against the Code should be made mandatory for all new homes from April 2008. This would not mean that every home had to be assessed against the Code. It would simply mean that every home would get a rating, indicating whether it had been assessed, and, if it had, the level of performance that it had achieved.

Raising the profile of the Code for new homes in this way, and raising awareness amongst homebuyers, could boost the demand for more environmentally friendly homes and boost the market for environmentally friendly technologies and construction methods. By making ratings, and not assessment, mandatory we believe that the aim could be achieved in the least regulatory and most cost-effective manner.

<sup>1</sup> The Code does not apply in Scotland, Wales or Northern Ireland

<sup>2</sup> [www.communities.gov.uk/index.asp?id=1505157](http://www.communities.gov.uk/index.asp?id=1505157)

Consultees, which included industry, non-Governmental organisations, and local authorities, agreed with our proposals and responses were highly in favour of a mandatory rating for new homes against the Code. However there was some confusion over what this would mean in practice. The key issues raised in the consultation are discussed in Part 2.b.

**Box 1:**

As well as those private developments that are being built to the Code standards, all new Government funding (for example through the Housing Corporation) for homes built by registered social landlords, as well as those developed by English Partnerships or with direct funding from the Government's housing growth programmes will in future comply with Level 3 of the Code.

Furthermore, from April 2008 at the latest, all new service housing contracted by the Ministry of Defence will meet Level 3. The Department of Health will actively encourage National Health Service organisations to adopt Code Level 3 when they commission new dwellings, and the Carbon Challenge will incentivise the development of homes at Level 5 and 6.

## What we are consulting on now

Responses to *Building a Greener Future* strongly supported the introduction of a mandatory rating against the Code, for new homes. Parts 2 and 3 of this consultation explore in more detail what this will mean and ask specific questions relating to:

- 1) Making rating against the Code mandatory for new homes.
- 2) The connection between the Code and Energy Performance Certificates.
- 3) Using Home Information Packs (HIPs) as the mechanism for making the Code rating available to prospective buyers.
- 4) When we should update the Code.
- 5) The future content of the Code, including introducing minimum standards for Lifetime Homes.

A full list of questions being asked is at Annex A.

## Regulatory Impact Assessment

A partial Regulatory Impact Assessment (RIA) was produced when the Code was launched in December 2006, based on research undertaken by Cyril Sweett for the Housing Corporation and English Partnerships<sup>3</sup>. An updated partial Regulatory Impact Assessment is attached at Annex C of this consultation paper, which takes account of updated cost information commissioned from Cyril Sweett and Faber Maunsell. Also attached is a partial Regulatory Impact Assessment on making the Lifetime Homes standards a mandatory element of the Code at progressively lower star ratings over time. Full Impact Assessments will be provided in due course.

<sup>3</sup> [www.cyrilsweett.com/news/researchandlit.htm](http://www.cyrilsweett.com/news/researchandlit.htm)

## How to respond

Questions on which we are seeking input are raised throughout this document and repeated in Annex A. Responses to this consultation must be received by **Tuesday 23 October 2007**.

These can be submitted by email, letter or fax to:  
Jeannette Henderson  
Sustainable Buildings Division  
Department for Communities and Local Government  
Zone 2/H6, Eland House  
Bressenden Place  
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email: [thecode@communities.gsi.gov.uk](mailto:thecode@communities.gsi.gov.uk)

When responding please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of an organisation, please make it clear who the organisation represents and, where applicable, how the views of the members were assembled.

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Communities and Local Government will process your personal data in accordance with the DPA and in the majority of circumstances this will mean that your personal data will not be disclosed to third parties.

## Help with queries

Questions about the policy issues raised in the document can be addressed to:

Jeannette Henderson  
Zone 2/H6 Eland House  
Bressenden Place  
London SW1E 5DU  
or by e-mail to [jeannette.henderson@communities.gsi.gov.uk](mailto:jeannette.henderson@communities.gsi.gov.uk).

If you have comments or complaints about the way this consultation has been conducted, these should be sent to:

Albert Joyce  
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or by e-mail to: [albert.joyce@communities.gsi.gov.uk](mailto:albert.joyce@communities.gsi.gov.uk)

**A copy of the consultation criteria from the Code of Practice on Consultation is in Annex B.**

## Part 2: A mandatory rating against the Code

### What is the Code?

The Code measures the sustainability of a new home against categories of sustainable design, rating the ‘whole home’ as a complete package.

The Code uses a rating system – indicated by ‘stars’, to communicate the overall sustainability performance of a new home. A new home can achieve a sustainability rating from one to six stars depending on the extent to which it has achieved Code standards. One star is the entry level – above the level of the Building Regulations; and six stars is the highest level – reflecting exemplar development in sustainability terms. A Code assessment must be carried out by a licensed and registered Code assessor.

A new home is defined as any new dwelling in regulation 2.1 of the Building Act 2000. The Code is only suitable for new homes – as discussed in Part 2.b of this consultation. It is not designed to apply to existing homes, to refurbishments, or to conversions (see Part 2.b). Similarly it cannot be used for certain types of housing for older people and supported housing where design features include integrated communal facilities.

There are nine categories included within the Code:

Categories	Flexibility
Energy efficiency Water efficiency	Minimum standards at each Level of the Code
Materials Surface water run-off Waste	Minimum standards at Code entry level
Pollution Health and well-being Management Ecology	No minimum standards

Minimum standards exist for five of the categories – these must be achieved to gain a one star sustainability rating. In addition energy efficiency and water efficiency categories have progressive minimum standards that must be achieved at each successive level of the Code, recognising their importance to the sustainability of any home. For materials, surface water run-off and waste only the minimum standard for the one star rating is compulsory.

Apart from these five minimum requirements the Code is completely flexible; developers can choose which and how to obtain points under the Code in order to achieve a higher sustainability rating. The technical guidance document<sup>4</sup>, aimed at developers and assessors, sets this out in more detail.

A Code assessment is a two-stage process. Code assessors will conduct initial design stage assessments leading to an interim Code certificate. Before a final Code certificate can be issued a post-completion check must be carried out in order to ensure that what was designed was actually built.

<sup>4</sup> [www.planningportal.gov.uk/uploads/code\\_for\\_sustainable\\_homes\\_techguide.pdf](http://www.planningportal.gov.uk/uploads/code_for_sustainable_homes_techguide.pdf)

The Code was developed with the Building Research Establishment (BRE) and is based on Ecohomes, which it has replaced for new homes in England. To support the Code we have worked with BRE to put in place an assessment and certification system. BRE have re-trained Ecohomes assessors to undertake Code assessments and are training new Code assessors to meet the anticipated increase in demand.

The Code is part of a wider package of measures which is aimed at reducing our carbon emissions from buildings and adapting to climate change. Key parts of this package of measures, including the consultation document *Building a Greener Future: Towards Zero Carbon Development*, were announced by former Communities Secretary Ruth Kelly on 13 December 2006.

The Code builds on the introduction of Energy Performance Certificates which will be introduced for new homes in January 2008 and provides an additional, more sensitive tool by which house builders can differentiate their performance in relation to energy efficiency.

## Part 2a: Introducing a mandatory rating against the Code

### What a mandatory rating against the Code would mean

In *Building a Greener Future* the proposal was made that, from April 2008, all new homes should be required to have a mandatory Code rating indicating whether they had been assessed and, if they had, the performance of the home against the Code.

We believe that this will raise awareness amongst homebuyers of environmentally friendly technologies and construction methods, and that empowering consumers to compare homes on the basis of their sustainability will encourage consumer demand and mean that more homes are built to higher environmental standards.

We did not propose a mandatory assessment against the Code because we recognise that, in some circumstances, homes will simply be built to minimum Building Regulations, and hence not achieve even a one star rating in the Code. Whilst we want to ensure that this zero star rating is made clear to the potential purchaser of the home we also do not want home builders, and hence consumers, to pay for an unnecessary assessment. For this reason we believe that a home builder shouldn't have to pay to go through an assessment that they know they are going to fail.

#### **The response to previous consultations**

In *Building a Greener Future* we asked the question 'Do you agree that all new homes should receive a rating against the standards set out in the Code for Sustainable Homes from April 2008?'

The majority of respondents (61 per cent) agreed that we should make a rating against the Code mandatory with only a small minority (8 per cent) disagreeing.

However it was clear from consultees' comments that they were unsure what exactly we were proposing and some (25 per cent) thought it meant that an *assessment* against the Code would have to be carried out.

Our proposals *do not* mean that all new homes have to be assessed against the Code. They mean that, for every new home, a home builder would either:

- employ a Code assessor to assess a home against the Code at both the design and post-construction stages; or
- download, at no cost, a zero star certificate or standard letter clearly stating that the house has not been assessed against the Code.

Further information on why we are not proposing a mandatory assessment is included in Part 2.b.

**Q1: Do you agree that a rating (not an assessment) against the Code for Sustainable Homes should be mandatory for all new marketed homes from April 2008?**

If we go ahead with this proposal, those who choose not to be assessed against the Code could potentially receive a zero star rating. This would include a statement along the lines of:

“The Code for Sustainable Homes sets out higher standards for a range of environmental sustainability categories, including for energy/carbon dioxide emissions, water and materials. This home has not been assessed against the Code and cannot therefore be considered to meet the enhanced environmental performance standards set out in that Code. New homes still have to meet minimum standards as set out in Building Regulations, but these are below the standards set out in the Code. An assessment of the home’s energy performance will be shown on this home’s Energy Performance Certificate.”

We believe that a zero star rating will be clear to consumers, ensuring they are made aware of when a home has not been designed to the higher standards in the Code. We believe this will motivate home builders to build to the Code, but where they have reasons for not wanting to build to the Code, it will not subject them to unnecessary expense.

Alternatively instead of taking the form of a zero star certificate, this statement, explaining that the home had not been assessed, could be provided in the form of a standard letter.

A zero star certificate or standard letter would be available to home builders free of charge – for example, it could be downloaded from an appropriate website. The only cost would be the time taken by the home builder to produce this certificate/statement. This is estimated at £1.3m per annum – and this is essentially the cost of making Code rating mandatory. The RIA sets out a number of scenarios where this cost is negated and the policy becomes cost effective.

Examples of the Code certificate, and a possible design for a zero star certificate and standard letter are attached at Annex D.

**Q2a: Do you agree that where homes are not assessed against the Code for Sustainable Homes, potential buyers should be given a document which clearly states that it has not been assessed?**

**Q2b: Would you prefer that this document is:**

**a) a zero star certificate; or**

**b) a standard letter?**

## **The Connection between the Code and Energy Performance Certificates**

As set out earlier in this document, the Code will complement the system of Energy Performance Certificates (EPCs) which are being rolled out from 1 August 2007 under the Energy Performance of Buildings (Certificates and Inspections) (England and Wales) Regulations 2007. These Regulations will require that all new homes from 1 January 2008 have an EPC providing key information about the energy efficiency/carbon performance of the home.

The Code builds on the Energy Performance Certificates in two important ways: firstly by providing a mechanism by which a home builder can more effectively demonstrate the efforts they have undertaken to improve the energy performance of their homes; and secondly by providing a broader measure of the overall sustainability of the home.

If we make it mandatory for all new homes to have a rating against the Code by April 2008 then after that point all new homes would have to have both an EPC and a Code rating. This makes it important that we integrate these two requirements as much as possible.

Both the Code and EPCs use the Government's Standard Assessment Procedure (SAP) calculation methodology for the energy assessment. The way they illustrate the energy performance of the building differs (the EPC representing the 'absolute' performance on a 'fridge ratings' diagram, and the Code rating illustrates performance in terms of a percentage improvement over Building Regulations). However, we have designed the two documents (the EPC and the Code certificate) such that it will be clear to consumers that the two are consistent. As shown in Annex D the Code certificate will include the 'fridge rating' to ensure that consumers can easily read across between the Code certificate and EPC.

The other issue to consider in making rating against the Code mandatory is that once an EPC and a rating against the Code are required it is important that a home builder (where they chose to have an assessment) does not have to employ two different organisations or individuals to produce the two documents. This will ensure that both the hassle and cost is minimised.

In order to achieve this we have therefore concluded that it is important that by the time rating against the Code becomes mandatory, all Code assessor organisations (including self-employed individuals) should also be able to produce an EPC and should offer both services (a Code assessment and an energy assessment) as a single package, for a single fee.

To offer this service it may mean that some Code assessors (those operating independently) will need to undertake additional training as Energy Assessors in order to be able to trade. However where a Code assessor is operating as part of an organisation that already offers both services for a single fee, it will be up to those organisations to decide how they deliver this service.

This proposal has no impact on Domestic Energy Assessors (those assessors who produce EPCs exclusively for existing homes) or on Energy Assessors who do not intend to undertake work where a Code assessment may be requested.

**Q3: Do you agree that, before we make rating against the Code mandatory, we should require that all Code assessor organisations (or self-employed individuals) are able to provide Code and EPC services as a single package?**

## How potential buyers would receive a Code certificate or zero star rating

By ensuring that new homebuyers are given information about Code ratings our aim is to encourage developers to build more sustainable homes and for homebuyers to demand more sustainable homes. The Code certificate is designed to provide homebuyers with the information they need to know about how their new home meets the nine sustainability categories in the Code.

Where a home builder chooses to seek an assessment (rather than providing a zero star certificate or standard letter), an interim certificate would be produced at the design stage and a final certificate when the home is completed. These certificates could therefore be made available by the home builder to potential buyers when marketing the home either off-plan (the interim certificate) or after the home has been built (the final certificate).

Where a home builder chooses not to have a home assessed against the Code there is a question about when a zero star certificate or standard letter should be made available.

In our view, the most appropriate time to provide this information to potential homebuyers is early in the home buying process, when they may be making choices between different properties. This would coincide with when they are entitled to receive a copy of a Home Information Pack (HIP).

An option for enabling this would be to amend the regulations made under section 163(5) of the Housing Act 2004 (currently the Home Information Pack (No.2 Regulations 2007)) so that a Code certificate *or* a statement of non-assessment (of which ever form) becomes a compulsory document in a HIP for all new marketed homes alongside the other compulsory documents (HIP index, Energy Performance Certificate, Sale Statement, Standard searches, evidence of title and, where appropriate, any additional information on leasehold sales).

The advantages of including the Code certificate in a HIP is that it ensures that the certificate is made available to potential buyers before they make a decision; that a Code rating is recognised as one of the key pieces of information that buyers should see; and that the Code certificate is included alongside the Energy Performance Certificate.

HIPs only apply to marketed sales however, so a duty in relation to the HIP will not require rating for new homes that are not offered on the open market. Furthermore, using HIPs means that in some circumstances we will have no mechanisms to require home builders to give homebuyers a final certificate. This will occur when, for example, a home is marketed off-plan and marketing stops before the point where a post-construction check takes place. In these circumstances it is possible that the completed home may not have been built to the standards intended, and reflected in the interim Certificate, and that the homebuyer does not get the standards of sustainability in their home that they thought they were purchasing. This means that the benefits expected will not be delivered by the completed home.

To address this we may in due course seek further legislative powers. If we do so, the certificate or statement of non-assessment would still be a required document in the HIP. However the new powers would provide an independent legal basis for these documents and ensure that the final stage certificate be given to any homebuyer who had received a design stage certificate.

**Q4a: Do you agree that the Home Information Pack would be an appropriate mechanism for ensuring homebuyers are provided with a rating against the Code for Sustainable Homes?**

**Q4b: Do you think it is necessary to have legislative powers to ensure that both design stage and post-construction certificates are given to homebuyers?**

## Transitional arrangements

When introducing these proposals, there will need to be arrangements in place to ensure fairness and to enable as many homes as possible to be built to the Code.

Because of the nature of the assessment process (which requires both a design stage and post-construction assessment) it will not be possible to require that all homes *completed* from April 2008 have a Code rating. It would also not be fair for homes already under construction to have to state that they hadn't been assessed against the Code when it had not been a requirement at the point at which building work began. However, any transitional arrangement will mean that it is longer until new homes have to be rated against the Code.

There are two possible ways in which the requirements set out in this document could be phased in:

- through the planning process; or
- through the Building Control process.

The first option is that the requirements described above would only apply where there is an application for planning permission after April 2008. This would ensure that the requirement for Code rating would only apply to homes early in the design process. It avoids every home that is marketed in April 2008 having to have a Code rating, given that they are unlikely to have been designed to the Code. It would not mean that a Code rating would have to be included with the application for planning permission – the rating

would still only have to ready when the home was actually marketed. This requirement would apply whether a development followed the outline or detailed planning permission routes. In general, homes would have to start construction within three years of receiving detailed planning permission (the reserved matters must be submitted within three years of receiving outline planning permission).

Linking to the planning system would ensure a gradual introduction, as homes that apply for planning permission after April 2008 would not all be constructed at exactly the same time. This would help ensure that there is a gradual increase in the demand for assessments, helping to ensure that there are enough assessors available.

The second option is that the requirements described above would only apply to homes for which Local Authority Building Control are given an Initial Notice by an Approved Inspector or for which a Building Notice or Full Plans application is submitted after April 2008. Builders have a maximum of 3 years after making their application before they have to commence construction. This proposal would not mean that a home builder had to produce a Code rating when submitting plans/notice to Building Control – this would only be required when the home was marketed. It would ensure that home builders didn't have to produce a Code rating for homes they are already part way through construction.

Both of these options allow for a reasonable transitional period without it being too long. Whilst the energy part of the Code assessment aligns most closely with the Building Regulations, there are many parts of the Code assessment that cover matters not in Building Regulations; such as site ecology. It is likely that the detail needed in order to carry out a Code assessment matches more closely with the level of information needed for detailed planning permission and the reserved matters stage of outline planning permission. The Building Regulations route would be more likely to capture homes further along in the design process, hence speeding up the transition, but this may result in homes being captured that were not initially designed to the Code.

**Q5a: Do you agree there should be a transitional period for the introduction of a mandatory rating against the Code?**

**Q5b: If there is a transitional period, should this come into effect for new homes that either:**

- **apply for planning permission after April 2008; or**
- **reach the Initial Notice, Full Plans or Building Notice stage of the building control notification process after April 2008?**

## **Part 2.b: Other issues raised in consultation**

### **Why not a mandatory assessment against the Code?**

As we have set out earlier in this document, we believe that introducing a requirement to have a rating against the Code will have significant benefits. It will help purchasers of new homes make informed decisions and encourage a greater demand for more sustainable new homes.

A number of respondents to our consultation on *Building a Greener Future* assumed that we were intending to make an assessment against the Code mandatory as opposed to a rating. This is not the case. The Code is a voluntary standard and there is a cost associated with undertaking an assessment against it. Based on our existing projections of future home building the cost of every home having an assessment would be £56m per year. This would only become cost effective if costs of building to the Code fell by 20% a year, and the market operated at 100% efficiency, both of which we consider extremely unlikely. There are some circumstances under which it may not make sense for a developer to seek to achieve a standard that is higher than current Building Regulations across the range of issues covered in the Code, or where the cost burden associated with the assessment is hard to justify (for example on a single dwelling development which is not seeking to go beyond regulations and where the cost can not be shared across a number of dwellings).

A mandatory assessment would force these developers to spend money on an assessment to be told what they already know – that they have not achieved a particular level of the Code. It could be argued that these developers should be required to go beyond regulations and achieve a particular level of the Code – but if it was our intention to require higher standards than we have now then we would have put these in Building Regulations (as we intend to do over time with the energy requirements).

Overall, the decision to go for mandatory rating as opposed to mandatory assessment reflects the status of the Code as a vehicle for encouraging improvements in performance on the part of the home building industry and providing information which empowers customers. We believe this approach does that without imposing unnecessary and unjustified costs where there are good reasons for not going further, faster.

## Availability of Code assessors

Some respondents to *Building a Greener Future*<sup>5</sup> were concerned about the numbers of Code assessors available to undertake assessments. The Building Research Establishment (BRE) has been re-training Ecohomes assessors in England to become Code assessors. Training commenced in March 2007 and by the end of June 2007 there were already approximately 432 accredited Code assessors with more training events planned. BRE's latest figures show that these assessors are appropriately spread across the country, taking account of levels of home building.

We expect that there will be enough assessors to undertake Code assessments, if we proceed with making a rating against the Code mandatory from April 2008, for the following reasons:

- Ecohomes/Code assessors currently undertake an average of four assessments a year. However actual levels of activity vary widely with some assessors undertaking less and others more. One assessor has completed 60 assessments in the past year and has registered a further 350 assessments. So there is capacity in the system at present.
- A significant proportion of new homes are built as part of housing developments rather than as single units. New homes in housing developments will, where they share a design, be assessed in common rather than home by home. Therefore, based on the current average number of types of properties in a typical development, we anticipate that approximately 1000 assessments will be needed for every 15,000

<sup>5</sup> [www.communities.gov.uk/index.asp?id=1505157](http://www.communities.gov.uk/index.asp?id=1505157)

properties. In making this calculation we have discounted single unit sites, built typically by owner occupiers, as we think that it is less likely that they will seek an assessment against the Code, partly because the cost of assessment will be higher.

- If new home building were to be around 165,000 new homes (ie at about the current level) in 2008, then, based on the number of different types of properties, the different sizes of sites, and allowing for some uptake on single sites, we estimate that approximately 22,000 actual assessments would be needed. The 432 Code assessors already trained would have to do about 51 assessments each in a year to meet this demand.
- BRE advise us however, that in addition to the 432 current assessors approximately 50 Code assessors are currently being trained and accredited each month. It is therefore anticipated that by April 2008 there will be approximately 900 assessors available. At this point, each of these assessors would need to do about 25 assessments a year if all anticipated new homes built were assessed against the Code. However, whilst there is a guaranteed minimum number of assessments as large parts of the social sector are required to assess against the Code, it is unlikely that every new home built will be assessed against the Code, at least in 2008.

**Q6: Do you agree with our analysis of the likely demand for assessments, and that there will be sufficient Code assessors available?**

## Using the Code for existing homes

The Code is only suitable for new homes. It is not designed to apply to existing homes because some elements apply to the construction process, such as the responsible sourcing of materials for key elements of the building. It is also unsuitable for existing homes because some of the standards required would be unrealistic to expect in existing homes where major renovation or re-building would be required to achieve them. For the same reasons, the Code is also unsuited to refurbishments and conversions.

## Certification bodies and the relationship with BRE

At present the only certification body is the Building Research Establishment (BRE). This is because the Code is based on the BRE's Ecohomes product. In return for granting Communities and Local Government the right to use the Ecohomes intellectual property in the Code, Communities and Local Government granted BRE the right, on a concessionary basis, to train and accredit Code assessors, and to administer and maintain the Code.

If other organisations wanted to offer a certification service then they would need to seek approval first from Communities and Local Government. Subject to that agreement, BRE may then offer a sub-licence agreement. The sub-licence would be likely to require that the organisation are already accredited to the required standard or are committed to doing so in a pre-determined time period. It is expected that the organisation would be required to name the employees who are to be employed as trainers. These trainers would be required to be trained by BRE before being granted the licence to operate. BRE would charge fees to cover the initial application fee, an initial assessment, training, certification and on-going assessment and a listing fee. The rates charged would be commercial rates commensurate with the services provided by BRE and BRE's rights in intellectual property contained in the Code.

## Part 3: The future of the Code for Sustainable Homes

### Updating the Code in the light of future changes

The Code for Sustainable Homes is designed to drive up sustainability standards in home building. When it was published in December 2006, Code Level 1 was above minimum regulatory standards and included elements of good practice in home design and construction.

It is already Government policy to strengthen the minimum requirements for energy performance in Building Regulations in 2010, 2013 and 2016 and that the Code provides the direction for these levels. For example we proposed that by 2010 new homes would emit 25% less carbon than they do now – in line with Level 3 of the Code. Defra have also recently consulted on whether Site Waste Management Plans<sup>6</sup> might be made mandatory. It is envisaged that over time other elements of the Code may also become mandatory minimum standards or requirements.

It will be necessary to keep the Code under review and up to date. It has been proposed that the Code should be revised in line with these changes to building and other regulations and that a ‘Code Version 2’ should be introduced in 2010. The Government would consult on any changes to the Code in advance in the usual way.

**Q7a: Do you agree with the principle that the Code for Sustainable Homes should be changed to reflect changes to the building and other regulations?**

**Q7b: Do you agree that the Code for Sustainable Homes should be revised in light of changing Building Regulations in 2010?**

### Lifetime Homes

Lifetime Homes standards were developed in the 1990s as a set of sixteen criteria which together make a dwelling easier to use and adapt as a family’s needs change over time.

Where they are adopted they ensure that homes are better able to adapt to the needs of their occupants at different stages of their life – as they grow and as they age. They also ensure that, when faced with a sudden crisis such as an incapacitating accident, injury or illness, the families living in these homes are able to make short-term adaptations to allow time to consider future needs, and longer-term adaptations should their wish be to remain the family home.

Currently, there is no requirement to adopt the Lifetime Homes standards (which form part of the health and well-being category) in the Code – it is entirely up to the developer to decide where to focus their effort in acquiring points. However we believe there are good reasons to change this.

We are facing a significantly ageing population. The Government projections show that over the next 30 years the population aged 65 years and over will rise from 9.7 million to 16.5 million – a 70% increase. The percentage increase is even more dramatic for older age groups, with those aged 85 years and over rising by 149%.

<sup>6</sup> [www.defra.gov.uk/corporate/consult/construction-sitewaste/consultation.pdf](http://www.defra.gov.uk/corporate/consult/construction-sitewaste/consultation.pdf)

Currently the home building market is not reacting as quickly as necessary to meet these dramatic changes. If we do not act now to make sure that the homes we are building will meet the needs of an ageing population we will face increasing difficulties in meeting our population's needs over the coming decades.

There is also some evidence that the undersupply of inclusive homes for older people is leading to people being unable to move into more suitable accommodation and that in turn is leading to under-occupation of family homes. This blocks the supply chain, reduces flexibility and movement in the market and drives prices up. Wider uptake of Lifetime Homes standards would allow older people to release large family homes into the market thus increasing the supply of family homes and affordability.

The cost of adapting homes which were not built to Lifetime Homes standards, for example for use by disabled people, is substantial. Encouraging greater uptake of the Lifetime Homes standards from design stage will reduce the cost of adaptations, as and when they are needed, and also reduce care costs.

We believe that including Lifetime Homes standards as an essential element in the Code for Sustainable Homes will achieve our aim of encouraging home builders to built to Lifetime Homes standards, and, over-time, make it the norm to do so, without resorting to additional regulatory intervention. It will contribute directly to our delivery of sustainable communities and will form an important element of our Strategy for Housing for an Ageing Population.

In order to achieve the transition to Lifetime Homes standards in a manageable way, encouraging change without imposing undue cost, we propose to make Lifetime Homes standards a mandatory element at progressively lower levels of the Code over time. This would mean that they would become a mandatory element:

- for a 6 star rating in the Code from April 2008;
- for a 4 star and above rating from April 2010; and
- for a 3 star and above rating from April 2013.

**Q8a: Do you agree that Lifetime Homes standards should be made mandatory in the Code?**

**Q8b: Do you agree that Lifetime Homes standards should be made mandatory at progressively lower levels of the Code, starting with level 6 in 2008, level 4 in 2010 and level 3 in 2013?**

## Annex A

### Consultation questions

Q1: Do you agree that a rating (*not* an assessment) against the Code for Sustainable Homes should be mandatory for all new marketed homes from April 2008?

Q2a: Do you agree that where homes are not assessed against the Code for Sustainable Homes, potential buyers should be given a document which clearly states that it has not been assessed?

Q2b: Would you prefer that this document is:

- a) a zero star certificate; or
- b) a standard letter?

Q3: Do you agree that, before we make rating against the Code mandatory, we should require that all Code assessor organisations (or self-employed individuals) are able to provide Code and EPC services as a single package?

Q4a: Do you agree that the Home Information Pack would be an appropriate mechanism for ensuring homebuyers are provided with a rating against the Code for Sustainable Homes?

Q4b: Do you think it is necessary to have legislative powers to ensure that both design stage and post-construction certificates are given to homebuyers?

Q5a: Do you agree there should be a transitional period for the introduction of a mandatory rating against the Code?

Q5b: If there is a transitional period, should this come into effect for new homes that either:

- apply for planning permission after April 2008; or
- reach the Initial Notice, Full Plans or Building Notice stage of the building control notification process after April 2008?

Q6: Do you agree with our analysis of the likely demand for assessments and that there will be sufficient Code assessors available?

Q7a: Do you agree with the principle that the Code for Sustainable Homes should be changed to reflect the changes to the building and other regulations?

Q7b: Do you agree that the Code for Sustainable Homes should be revised in light of changing Building Regulations in 2010?

Q8a: Do you agree that Lifetime Homes standards should be mandatory in the Code?

Q8b: Do you agree that Lifetime Homes standards should be mandatory at progressively lower levels of the Code starting with level 6 in 2008, level 4 in 2010 and level 3 in 2013?

## Annex B: The consultation criteria

The Government has adopted a code of practice on consultations. The criteria below apply to all UK national public consultations on the basis of a document in electronic or printed form. They will often be relevant to other sorts of consultation.

Though they have no legal force, and cannot prevail over statutory or other mandatory external requirements (eg under European Community Law), they should otherwise generally be regarded as binding on UK departments and their agencies, unless Ministers conclude that exceptional circumstances require a departure.

- 1. Consult widely throughout the process, allowing a minimum of 12 weeks for written consultation at least once during the development of the policy.**
- 2. Be clear about what your proposals are, who may be affected, what questions are being asked and the timescale for responses.**
- 3. Ensure that your consultation is clear, concise and widely accessible.**
- 4. Give feedback regarding the responses received and how the consultation process influenced the policy.**
- 5. Monitor your department's effectiveness at consultation, including through the use of a designated consultation co-ordinator.**
- 6. Ensure your consultation follows better regulation best practice, including carrying out a Regulatory Impact Assessment if appropriate.**

The full consultation code may be viewed at  
[www.cabinetoffice.gov.uk/regulation/consultation/code/index.asp](http://www.cabinetoffice.gov.uk/regulation/consultation/code/index.asp)

Are you satisfied that this consultation has followed these criteria? If not, or you have any other observations about ways of improving the consultation process please contact:

Albert Joyce  
Communities and Local Government Consultation Co-ordinator,  
Zone 6/H10  
Eland House,  
Bressenden Place  
London,  
SW1E 5DU  
or by e-mail to: [albert.joyce@communities.gsi.gov.uk](mailto:albert.joyce@communities.gsi.gov.uk)

Please note that **responses to the consultation itself** should be sent to Jeannette Henderson; contact details shown within the main body of the consultation.

## **Annex C: Partial Regulatory Impact Assessments (PRIAs)**

### ***Mandatory rating against the Code***

#### **Summary: Intervention and Options**

**What is the problem under consideration?  
Why is government intervention necessary?**

New homes make a significant contribution to carbon dioxide emissions and climate change. They also have a wide range of other environmental impacts, for example through the materials used to construct them and the water used by the occupants. There are potential market failures because the externalities of a home's environmental impact are not taken into account by home builders, and because there is often a lack of information available – buyers are often unable to judge the sustainability of a new home. Intervention is necessary to tackle this.

**What are the policy objectives and the intended effects?**

The Code builds on the introduction of Energy Performance Certificates by providing a national framework within which house builders can improve the overall sustainability of new build homes. It provides an effective mechanism by which builders can be recognised for going beyond current Building Regulations on energy and provides information on other aspects of sustainability which are critical to limiting environmental impact. Making it mandatory to have a rating against the Code will ensure that information is available on all new homes and which will allow purchasers to make more informed choices which in turn should encourage home builders to take account of environmental externalities in the design and construction of new homes.

**What policy options have been considered? Please justify any preferred option.**

Two options have been identified: do nothing (retain the Code as a voluntary standard); and introduce a mandatory rating against the Code. The do-nothing option is not expected to have as substantial impact on the information market failure as introducing mandatory rating. The scenarios under which mandatory rating is cost effective are considered realistic. An alternative option of mandatory assessment was considered, but given the current costs of meeting the Code's standards, this would force those developers who choose not to meet those standards (which are additional to Building Regulations standards) to spend money on an assessment to be told what they already know.

**When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?**

Uptake of the Code will be monitored on an ongoing basis (quarterly). In 2010, when Building Regulations standards for energy efficiency will rise, we will also undertake a review of the administrative cost of obtaining a zero star certificate or statement of non-assessment.

## Summary: Analysis & Evidence

COSTS	ANNUAL COSTS		Description and scale of <b>key monetised costs</b> by 'main affected groups'
	<b>One-off</b> (Transition)	<b>Yrs</b>	
	£		
	<b>Average Annual Cost</b> (excluding one-off)		
£ 5.2m		<b>Total Cost (PV)</b>	<b>£ 77.7m</b>
Other <b>key non-monetised costs</b> by 'main affected groups'			

BENEFITS	ANNUAL BENEFITS		Description and scale of <b>key monetised benefits</b> by 'main affected groups'
	<b>One-off</b>	<b>Yrs</b>	
	£		
	Average Annual Benefit (excluding one-off)		
£ 4.3m		<b>Total Benefit (PV)</b>	<b>£ 64.7m</b>
Other <b>key non-monetised benefits</b> by 'main affected groups'			
Wider sustainability benefits e.g. reduced impact from flooding, recycling, waste management, reduced water consumption/better management etc.			

**Key Assumptions/Sensitivities/Risks** Key risk = no additional take-up, but fixed admin cost of £1.3m. Results are sensitive to (a) speed of cost reduction over time, (b) level of admin cost, (c) lifetime in which benefits accrue, (d) market efficiency improvement achieved (i.e. % developers choosing to build to higher standards because of better information)

Price Base Year 2008	Time Period Years 15	<b>Net Benefit Range (NPV)</b> <b>£ -1.3m to +£129m</b>	<b>NET BENEFIT (NPV Best estimate)</b> <b>£ -0.9</b>
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What is the geographic coverage of the policy/option?		England		
On what date will the policy be implemented?		April 2008		
Which organisation(s) will enforce the policy?		BRE/TSOs		
What is the total annual cost of enforcement for these organisations?		£ 0		
Does enforcement comply with Hampton principles?		Yes		
Will implementation go beyond minimum EU requirements?		No		
What is the value of the proposed offsetting measure per year?		£		
What is the value of changes in greenhouse gas emissions?		£ 1.4m (0.09m/yr)		
Will the proposal have a significant impact on competition?		No		
Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large
Are any of these organisations exempt?	No	No	N/A	N/A

<b>Impact on Admin Burdens Baseline</b> (2005 Prices)				(Increase – Decrease)
Increase of	£ 1.3m	Decrease of	£ 0	<b>Net Impact</b>
				<b>£ 1.3m</b>

## **Title of Proposal**

1. Assessing the costs and benefits of making a rating against the Code for Sustainable Homes mandatory from April 2008 for all new homes built in England.

## **Purpose and Intended Effect of Measure**

### **Objective**

2. This proposal builds on the mandatory provision of Energy Performance Certificates by providing a national framework within which home builders can work to improve the overall sustainability and impact on the environment of new build homes.
3. It goes further than EPCs in the area of energy efficiency by providing an effective mechanism by which home builders can be recognised for making improvements which go beyond current building regulations.
4. It also provides information on a new home which covers a wide range of other aspects of sustainability which are not mandatory in the Building Regulations but are critical to limiting the environmental impact of housing.
5. The Code was introduced in April 2007 as a voluntary national standard. The proposal explored in this paper is to make it mandatory for all new homes to have a rating against the Code from April 2008.
6. This will ensure that all prospective purchasers of new build homes are given independent information, which they can trust, about how the home they are considering buying performs against the Code. It will also allow home builders to differentiate the standards of their homes from the standards of others.
7. It is therefore anticipated that this proposal ensuring new homes have such a rating will increase consumer demand for more sustainable homes and encourage industry to build more sustainable homes, because consumers will place a value on greater sustainability.
8. The Code is currently only applicable in England and a mandatory rating against the Code will likewise only apply in England.

### **Background**

9. From January 2008, Energy Performance Certificates for new homes will ensure that every purchaser has information about the energy efficiency of their home and practical suggestions for making it even more efficient. The Code builds on this by providing a framework for home builders to gain recognition for going beyond current Building Regulations on energy efficiency, and sets standards for key aspects of sustainability other than energy.
10. Because all new homes already reach a high level of performance on the EPC scale, even big improvements on top of current Building Regulations don't register significantly. The energy element of the Code is based on percentage improvements over Building Regulations so big improvements will be clearly visible to consumers.

11. The Code also provides a means of assessing the wider sustainability of a home. In addition to carbon emissions, the housing sector also creates a range of other environmental impacts, for example through inefficient use of water (which also has an indirect impact on carbon emissions used to supply, heat and treat it), generation of waste, and use of polluting materials.
12. Although great progress has been made in improving the sustainability of buildings and their contents through a range of initiatives in recent years, there is increasing recognition of the urgent need to take more radical action.
13. The Building Regulations set mandatory minimum standards for design and construction of buildings, which include aspects of health, safety and environment, and are updated regularly (approximately every five years, although energy efficiency/carbon dioxide emissions has been more frequent) to reflect changes in required standards and developments in technology. On their own, however, they do not cover all aspects of sustainability. They also offer no incentive for exceeding the minimum standards, no information on when minimum standards have been exceeded, offer no stimulus to innovation, and offer no mechanism through which we can increase consumer awareness and demand for more sustainable housing.
14. Homes built to the minimum standards in the Code, will have and/or will provide the facilities to encourage:
  - improved energy efficiency (and therefore lower carbon emissions)
  - reduced consumption of potable water
  - reduced surface water runoff
  - reduced environmental impact of materials
  - improved site waste management and adequate space for accessible waste storage.
15. They will also have, and/or provide the facilities to encourage:
  - improved waste recycling provision
  - improved consideration of flood risk during citing and design
  - more responsibly sourced materials
  - reduced pollution impact
  - design features which support the health and well-being of occupants
  - design features which assist in more sustainable management of the home, including amenities for disabled people
  - more positive impacts on the ecological value of the site
  - reduced waste from the construction process
  - consideration of the surrounding community during construction
  - reduced environmental impacts during construction.

16. Homes built to higher levels of the Code, represented by star ratings, will have to do progressively more in these areas, with fixed levels of attainment for energy and water.
17. The introduction of the Code has given the building industry more certainty over the likely direction of travel for integrating sustainability of new homes into regulation over time. As a result home builders will also be better able to factor sustainability measures into land purchase prices and will therefore be inclined to integrate such measures into new homes.
18. The development of the Code – which is based on Ecohomes – was overseen by a Senior Stakeholder Group which included representatives of the construction industry and environment groups. The initial proposal to make a rating against the Code mandatory was consulted on by Government as part of the *Building a Greener Future: Towards Zero Carbon Development* consultation in December 2006. The majority of respondents (61 per cent) were in favour of introducing a mandatory rating, whilst only 8 per cent disagreed.

## Rationale for government intervention

19. The recent Stern review tells us that global warming could shrink the global economy by 20 per cent. It states, however, that if we take action now, it could cost just 1 per cent of global gross domestic product. Due to the significant contribution that construction and use of our homes makes to the level of carbon dioxide emissions (27 per cent in 2004), failure to act now in the new homes sector will contribute to greater costs of damage from climate change in the longer term. Whilst new build homes are a relatively small proportion of the total housing stock, if we build the homes we need, then by 2050, as much as one-third of the total housing stock will have been built between now and then.
20. However, it is also vital that we take action on sustainability issues other than just the carbon emissions associated with living in a home. For example, the responsible sourcing of materials protects endangered forests; building homes that make it easier to recycle waste will reduce the amount we send to landfill; and protecting and enhancing the ecological value of sites, or building on sites of low ecological value ensures we protect our wildlife and areas of natural beauty. The Code takes issues such as these into account.
21. Within the market for new housing there are a number of market failures relevant to the environment and sustainability. There are two that are of particular importance.
22. Firstly, the wider social costs ('externalities') of a home's environmental impact are generally not taken into account within private decisions by developers or buyers. For example, home owners are not required to pay the full costs they impose on society (including future generations) and so have little incentive to minimise their emissions or live sustainably, though as awareness of sustainability rises this may change over time. Similarly, home builders do not face the full environment costs to society of the houses they build and will therefore build to lower environmental standards than is best for society as a whole. This externality applies to all of the sustainability areas covered by the Code, however, it is hard to put an accurate financial value on the benefits other than for energy and water. This is partly because of an inherent difficulty in valuing these benefits, and partly because developers have some flexibility

in which elements of the Code they choose to incorporate.

23. Secondly, buyers are often unable to judge the quality or sustainability of homes – there is imperfect information in the market. Even if buyers were prepared to pay more for a sustainable home then they have a lack of information and signals to decide when a home is truly sustainable. Providing such transparency will help consumers develop the market for more sustainable homes, and enable developers to distinguish their product in sustainability terms and enable consumers to understand better the sustainability performance of new homes.
24. The Code for Sustainable Homes does not enforce a single standard of sustainability. However, by setting a common framework and comparable standards, raising awareness and improving the amount of information available, it would help to address the lack of information. The more widespread the awareness and use of the Code then the stronger this effect will be. A mandatory rating against the Code will extend the coverage of information about sustainability of new homes, and the risks and justification for the use of particular technologies.
25. This information can also help overcome cultural barriers in public acceptability, which has been an issue for some renewable technologies, such as wind<sup>7</sup>. With more information about the wider implications of their actions it will further encourage people to make responsible choices, which may begin to address the externality market failure as well.

## Consultation

### Within government

26. When developing the Code for Sustainable Homes consultation within government on the proposed Code was undertaken by the former ODPM and continued under Communities and Local Government. Other Government Departments (and Agencies), including the Department for Environment, Food and Rural Affairs, Department for Trade and Industry, the Office of Government Commerce and the Environment Agency were also represented on the Code's Senior Steering Group (SSG).
27. During the development of the Code it was agreed that a rating against the Code should be made mandatory from April 2008, depending on the outcome of consultation as part of *Building a Greener Future*, and a further more detailed consultation (of which this RIA forms a part).
28. When developing this consultation paper and RIA other Government Departments and the SSG were invited to input and all Government departments have been consulted on the proposals.

<sup>7</sup> The Stern Review highlights the role of information policies in improving public acceptability, with examples in wind, nuclear and hydrogen vehicles.

## Public consultation

29. Likewise, when developing the Code for Sustainable Homes, public consultation was undertaken, including with the Senior Steering Group.
30. In *Building a Greener Future: Towards Zero Carbon Development* we asked whether all new homes should be required to have a mandatory Code rating, indicating whether they have been assessed and the performance of the home against the Code.
31. The majority of respondents (61 per cent) agreed that a rating against the Code should be made mandatory with only 8 per cent disagreeing.

## Options

32. Two options have been identified:
  - A) Do nothing (retain Code as a purely voluntary standard)
  - B) Introduce a mandatory rating against the Code for Sustainable Homes
33. It is difficult to demonstrate the true potential impact of a mandatory Code rating in the RIA due to the difficulties in predicting what future uptake of the Code will be, either if the Code remains voluntary or if rating is made mandatory. Furthermore, there is little evidence to indicate how buyers value sustainability and thus how developers will gauge the impact on their profits of improving the sustainability of the homes they build. The modelling on which the RIA is based therefore examines different scenarios based only on whether the market operates more efficiently with a mandatory rating due to increased information and awareness of sustainability. In particular, it illustrates how developers might respond to the way that costs of building to higher Code levels might fall over time. It then compares these costs to the benefits from building more sustainable homes.
35. Apart from energy and water, many of the wider benefits of sustainability cannot be financially assessed and are not included in the modelling – for example the benefit of preserving local ecology. This means that the benefits are mainly quantified in terms of lower energy and water bills, and from an estimate of the value of the carbon savings, though it excludes the benefits attributed to raised Building Regulations standards for energy efficiency, which are captured in the final RIA for *Building a Greener Future*. The modelling assumes that a proportion of homebuilders will, when the marginal benefits (essentially energy and water bill savings) exceed the marginal costs of construction (per unit) at any level, choose to build to that Code level. It assumes that the proportion that choose to do this when rating is mandatory will be higher than when it is voluntary, as more information about the impact of sustainability improves market efficiency.
36. The key difference between a voluntary and a mandatory rating is that when rating is mandatory there is an administration cost associated with producing a certificate, even when no action is taken to build more sustainably. The model explores what scenarios would lead to this administrative cost being reduced or even exceeded by the overall benefit from building more sustainable homes. In doing so it identifies the risks associated with making Code ratings mandatory. It does not attempt to predict what uptake of the Code will be, and whether the proportions of homes built to different levels of the Code will change.

37. We are aware that this proposal will create some additional burdens for home builders, and will look to identify compensatory simplifications prior to implementation. If you have any proposals for simplification please notify them through the Better Regulation Executive's simplification portal at <http://www.betterregulation.gov.uk>.

### ***Option A – Do nothing***

38. The 'do nothing' option is the baseline against which Option B is measured. It effectively represents 'business as usual'. This means that if you choose to have a Code assessment then you have to pay for this assessment, but that if you don't choose to have an assessment no costs are incurred.
39. Take-up of the Code standard is based on the current annual number of assessments under the Code (assumed to be equivalent to previous Ecohomes uptake), and the current proportion of homes achieving different levels of sustainability performance. As we have no certainty over future uptake a number of scenarios are modelled, to enable comparison with Option B on a 'like-for-like' basis.
40. The overall impact assumes that the costs of building to the Code fall over time, with sensitivity testing around the speed of cost reduction, as well as assumptions about what proportion of home builders choose to build more sustainable homes (assuming some will do so where the increased cost of building equals the marginal benefit gained from building more sustainably). When the Code is voluntary this proportion is assumed to be relatively low, as it has less impact in addressing the informational market failures.

### ***Option B – Mandatory Rating against the Code***

41. Option B involves the introduction of a mandatory rating against the Code. This does not mean that a home builder has to pay for an assessment on every new home built, but that where they choose not to have an assessment they will still have to make a rating available to a potential buyer, in the form of a zero star certificate or statement of non-assessment. This involves an administrative cost, for example for the time taken to produce this certificate or statement. This is estimated at £1.3m per annum – and is essentially the additional cost to society of making Code rating mandatory.
42. For the purposes of this RIA, as in the 'do nothing' option, the same sensitivities on cost reductions have been applied and the same principle that some proportion of builders will adopt higher standards where there is a net benefit per dwelling to building to that standard (in terms of additional construction cost against ongoing benefits from lower utility bills). The key difference is that the proportion following this behaviour is assumed to increase over and above the 'do nothing' case, as awareness of the Code will have higher market penetration and is more likely to improve market efficiency as buyers are able to make more informed, responsible choices and developers are better able to respond.
43. The analysis therefore does not represent what we hope or expect uptake of the Code to be when rating is mandatory, but looks instead at what scenarios are needed to justify the administration cost, and what the risks are.

## Alternative options considered

44. An alternative option would be to make assessment against the Code mandatory. This would mean that every new home would have to pay for an assessment to be carried out against the Code, no matter whether they simply intend to build to minimum Building Regulations standards. Effectively this would mean that instead of downloading a zero star certificate for free, home builders would have to pay for an assessment before receiving a zero star certificate. This would include homes on single and smaller sites (where the assessment costs per house are likely to be higher) as well as larger sites. Based on our projections of future house building the cost of assessment would be £56 million per year, or £836 million over the whole period in present value.
45. This may lead to greater market efficiency, and hence higher uptake of the Code. However, it would only become cost effective to make assessment mandatory when costs of building to the Code fell by about 20 per cent per year, and the market operated at 100 per cent efficiency ie all builders will adopt higher standards where there is a net benefit per dwelling to building to that standard (in terms of additional construction cost against ongoing benefits from lower utility bills). As both assumptions are considered unlikely, this alternative option has been rejected as being too burdensome.

## Costs and Benefits

### Sectors and groups affected

46. Many sectors of the construction industry will be affected by the introduction of a mandatory rating against the Code. In particular, it will affect large and small home builders, manufacturers of sustainable technologies and homebuyers. To a lesser extent it will affect estate agents.

### Home builders

47. At present, under a voluntary Code, home builders can choose whether to assess their developments against the Code, and therefore whether they are prepared to incur the associated administrative costs.
48. Home builders are able to choose which Code level they aim for, and are in control of both the 'admin costs' (costs associated with assessment) and the 'policy costs' (costs associated with building more sustainably) they incur. Over the longer term, those intending to implement the Code may seek to offset these costs through making lower bids for land purchase, although under a voluntary Code, strong competition for land may make it difficult for individual developers to pass on these costs.
49. Our proposals to make a rating against the Code mandatory will still mean that having an assessment against the Code is voluntary; home builders do not need to pay to have an assessment of their new homes. However, if home builders decide not to have an assessment they will have to produce a clear statement (either a zero star certificate or a statement of non-assessment) which they provide to the homebuyer at an appropriate point in the home buying process. This aims to drive up demand for Code rated homes amongst homebuyers.

50. The policy costs of this would still be controlled by the home builder. They decide whether to build to the Code standards. However there would be a minimal administration cost associated with producing the proposed zero-star certificate or statement of non-assessment. This standard document would be able to download from an appropriate website and the home builder would need to download and print a copy for each home they sell. It is envisaged that some developers of smaller sites would take this option rather than building to the higher sustainability standards of the Code and paying for an assessment.
51. In a world where consumers are becoming increasingly environmentally conscious, and demanding higher sustainability performance in their goods and services, home builders should be able to benefit in terms of competitive differentiation by marketing their performance against the Code. Recent research by the Sponge Sustainability Network suggested that there is a correlation between beliefs about the efficacy of sustainable homes in combating climate change and beliefs about the financial pay-off of sustainable features.<sup>8</sup> However, the evidence here is not robust enough to have made assumptions about the financial premium for sustainable homes.

### **Race equality assessment**

52. A mandatory rating against the Code for Sustainable Homes should not have any impact on race equality.

### **Health impact assessment**

53. Building homes to Code standards should, over the long term, have some positive effects on residents' health but these are not likely to be large or quantifiable.

### **Rural considerations**

54. There should not be any specific rural considerations associated with this policy.

### **Breakdown of costs and benefits**

### **Assumptions and Uncertainties**

55. The rate of construction of new build homes has been assumed in line with our previous home building aspirations, increasing to 200,000 net additions by 2016.
56. 15 years of additional home building has been assumed in calculating the total net present costs and benefits. This 15-year period was chosen to provide a long enough horizon to reflect potential changes in the market whilst reducing the uncertainties of forecasting too far into the future.
57. A period of 20 years has been used as the basis for the lifetime of benefits for each home built to Code standards. This figure was chosen to reflect the average lifetime of the technologies needed to meet the Code levels before they need to be replaced.

<sup>8</sup> [www.spongenet.org/lifestyle/index.php?page=news&news\\_id=101](http://www.spongenet.org/lifestyle/index.php?page=news&news_id=101)

58. The baseline rate of assessments has been assumed to follow current assessment rates under Ecohomes:
- Public sector – 24,000/yr; and
  - Private sector – 3,000/yr (equivalent to 2 per cent of private new build).
59. The model is sensitive to the level of administrative costs of assessment and rating against the Code. An average assessment fee of £218 is assumed, based on an average cost excluding single sites, for example built by self-builders, from whom we do not expect uptake of the Code to be high, partly due to the higher cost of assessment.
60. Two man days (at a value of £280) has been assumed for gathering information by developers to feed into an assessment. Information gathering is required for each different home design specification within a development. We have assumed a mix of up to three types per development, generating an average cost per dwelling of £19.
61. Where a zero star certificate/statement of non-assessment is obtained it is assumed to be free to obtain and only have a cost in terms of the time taken to obtain the certificate/statement and make it available to a potential buyer. The conservative assumption has been made that this takes half an hour for each dwelling at a cost of £20 per hour.
62. There are considerable uncertainties over the levels of sustainability performance that home builders will aim to achieve in the private sector. This analysis, in which uptake of private sector Code assessments is linked to ongoing costs and benefits of homes, is consistent under a voluntary Code rating with the proportions achieved under Ecohomes. These are as follows:
- Level 1 – 83 per cent
  - Level 2 – 15 per cent
  - Level 3 – 2 per cent
  - Level 4/6 – 0 per cent (not applicable under Ecohomes)
63. The Ecohomes experience is equivalent, in our modelling, to 5 per cent of the market working efficiently, where developers build to Code levels where there is a positive net benefit. The market working efficiently, in this context, means when home builders will choose to build to the Code when the marginal benefits (essentially energy and water bill savings) exceed the marginal costs of construction and assessment (per unit) at any level. The assumption is valid if, for example, homebuyers are prepared to pay extra up-front for a home that will save them money in the longer term, or pay extra because they place a value on sustainability. It is not assumed that home builders have to factor in the social benefit (for example from reduced carbon emissions) to this benefit analysis, as it is uncertain that they will be compensated for this. This proportion has been adopted in the modelling to represent the 'do nothing' base case, with the proportion under a mandatory rating increasing to 20 per cent, with sensitivities tested at other rates.

64. Whilst these future estimates are somewhat unrealistic (or at least unknown) and likely to be conservative, we do not have robust data to model expected future uptake, and therefore the model does not aim to predict what uptake will be.
65. The assumption of 5 per cent ‘market efficiency’ is low to reflect experience to date, but also our understanding that the benefits from lower utility bills do not necessarily flow to the home builder through prices, as prices are determined mostly by the second-hand market and are only likely to be influenced by developers if buyers are willing to pay a premium for more sustainable homes. We do not yet know how effective the Code will be as a signal in the market, or indeed what value consumers will put on it, and how strong an incentive effect it will have on developers – for this reason conservative assumptions have been made. If homebuyers were prepared to pay more for more sustainable homes then this figure would be likely to rise.
66. In monetising the carbon savings we have assumed the social cost of carbon to be £70 per tonne in 2000 prices<sup>9</sup>.
67. We have used a standard flat rate for energy prices over time.
68. The policy costs (costs of achieving different Code levels) are based on the *‘Refined and Updated Cost analysis of The Code for Sustainable Homes’* undertaken by Cyril Sweet in June 2007 for Communities and Local Government and a Communities and Local Government commissioned study of potential energy costs and benefits of meeting higher energy standards.<sup>10</sup> These two studies build on the work undertaken by Cyril Sweet for English Partnerships and the Housing Corporation in 2006 *‘Cost Review of the Draft Code for Sustainable Homes’* and was updated to take into account the finalised Technical Guidance which underpins the Code.
69. The implications of meeting each Code level are presented in comparison to the costs of a baseline home (eg a Building Regulations compliant home). Costs are presented on a per dwelling basis.
70. The analysis represents an estimate of the total costs to a contractor, including materials, plant and labour, preliminaries, overheads, contingencies, profit, and design fees. The models relate to the construction of the dwellings only. Detailed exclusions can be found within the Cyril Sweett report.
71. The costings are based on a home builder with a trading turnover of 5,000 to 10,000 dwellings per annum. It should be noted that the policy costs will vary according to the size of the home builder (which will affect purchasing power), and the size of developments undertaken (larger developments will bring economies of scale).
72. A key assumption impacting on the overall costs of the policy are the specific costs associated with meeting the standards of the Code. Achieving these standards, particularly higher levels of the Code, requires the adoption of emerging sustainable technologies. As demand for these technologies increases and their markets mature, it is likely that increased competition and opportunity to take advantage of economies of scale, will cause the costs of these technologies to drop. Innovation may also cause policy costs to decrease in the future, as highlighted by international experience.

<sup>9</sup> HM Treasury and Defra, Estimating the Social Cost of Carbon Emissions, 2002.

<sup>10</sup> To be published – *The costs and benefits of the Government’s proposals to reduce the carbon footprint of new housing development*, Cyril Sweett, Faber Maunsell & Europe Economics, July 2007

73. This RIA therefore includes analysis of the potential costs using a number of different scenarios for reduction in the cost of technology. As a base case it assumes no fall in costs of meeting the Code over time. However, this scenario is considered to be highly unrealistic given our understanding of technology markets as outlined above. Other scenarios tested assume cost reductions of 2 per cent, 5 per cent, and 10 per cent a year.
74. The benefits are in terms of utility bill and carbon savings for energy and water. Benefits from other categories in the Code have not been valued in this model as there is no robust basis for doing so. If such benefits could be financially modelled then the benefits would increase. Carbon savings are largely due to reduced need for energy, with some saving from reduced demand for water eg though avoiding emissions associated with pumping water.
75. On the basis that all new Government funded homes and homes built on land owned by English Partnerships were, prior to April 2007, required to achieve Ecohomes 'Very Good' standard and Code level 3 from April 2007, and the Housing Corporation will be building to Code level 3 from the 2008-10 bid round, the associated impacts have been included in the base case, but are not quantified. The costs and benefits presented relate only to private new build, as the only part of the new build market to experience potential additional impacts as a result of the mandatory rating.
76. Similarly, the costs and benefits associated with improvements in energy efficiency when Part L of Building Regulations are revised in 2010, 2013 and 2016 have been attributed to that RIA and are in principle, therefore, included in this 'do nothing' base case, but the quantified costs and benefits are not included, for simplicity. In addition any costs and benefits associated with HM Treasury's policy of allowing stamp duty and land tax exemption for zero carbon homes has not been included here.

## Option A – Do nothing

### Summary

77. A number of scenarios are analysed, based on how costs of building to the Code fall over time. The model simulates the effect of developers taking into account some additional value to their business in building to the Code. In this case their decisions are based on the ongoing costs and benefits from the property as well as the up-front costs of construction ie where the unit net present value (benefits minus costs over time) is positive then a proportion of home builders react to this and build homes to that level of the Code. Under a voluntary rating system this proportion is assumed to be 5 per cent, which is consistent with the level and standard of take-up seen under Ecohomes.
78. As more homes are built to the Code then this means that both the costs and benefits increase, and the net overall benefit will increase, as developers are only building where there is a net benefit to society. The overall net benefit to society is therefore a product of how many homes are built to different Code levels and the relative net unit costs and benefits of building to the Code. The table below summarises this:

**Table 1: Summary costs and benefits of Option A over period 2008-2022: assuming 5 per cent ‘market efficiency’**

Cost reduction scenario	Increased number of assessments Overall and (per annum) £m	Present Value Admin Costs (£m)	Present Value policy Costs (£m)	Present Value Economic Benefits (£m)	Present Value Environmental Benefits (£m)	Net Present Value (Benefits – Costs) Overall and (per annum) (£m)
<b>Flat costs over time</b>	53,200 (3,500 p.a.)	9.2	2.5	12.1	0.1	<b>0.4</b> <b>(0.03 p.a.)</b>
<b>2% reduction a year</b>	56,200 (3,700 p.a.)	9.7	4.1	14.6	0.2	<b>1.0</b> <b>(0.1 p.a.)</b>
<b>5% reduction a year</b>	104,200 (6,900 p.a.)	17.1	24.1	46.2	0.4	<b>5.4</b> <b>(0.4 p.a.)</b>
<b>10% reduction a year</b>	288,600 (19,200 p.a.)	46.8	107.1	185.6	1.2	<b>33.0</b> <b>(2.2 p.a.)</b>

79. The level of take up under a voluntary system, as illustrated above (at 3,500 each year on average), is consistent with Ecohomes uptake, representing about 2 per cent of private new homes built each year. The net impact is a positive benefit to the economy of around £400,000 over the period to 2022. This net benefit increases if different assumptions are made about how quickly costs fall over time.

## Administrative Costs

80. The key administrative costs are as follows:

- Costs to developers of obtaining an assessment (which will include the assessors fee plus time taken in preparing and providing input information to the assessment); or
- Costs to scheme operators in running the scheme. The assessment fee borne by developers incorporates (and enables the scheme operators to recoup) all of their costs by eg development and delivery of training to assessors, preparation of internal assessment/QA systems, resource used to undertake the assessment itself, lodgement of Code certificates.

81. The partial RIA published in December made the assumption that the number of assessments under a voluntary Code would be the same as expected under Ecohomes, which was assessed on a site-wide basis. However, the Code concentrates more on the individual building and as a result there are more assessments needed to be made in a development than there had been previously. Additionally, a post construction check is also required before a final certificate is issued. The administration costs of assessing against the Code are therefore higher and depend on the number of types of home in a development, the size of the development and the number of assessments undertaken at any one time.

82. Assessment costs are therefore incurred by each type of house in a development, with a cost ranging from £160 for each home (in a development of 100 homes with 10 home types) to £1680 for an assessment of a single home on a site. It is not anticipated that at developers of single homes sites (often self-build) will bear the costs of assessment. We have therefore excluded them from the calculation and taken an average of £218 per home. In addition to this cost, as explained in the previous section, we have added an assumed £19 per dwelling to account for time taken by developers to prepare information for the assessment. Over a 15 year period, under the voluntary scenario modelled in table 1 with 2 per cent of the private market building to the Code levels, these costs total around £9.2 million (an average annual cost of £0.6m).

83. These costs are small in the context of the overall construction industry, which accounts for approximately 5.4 per cent of GDP<sup>11</sup> with an output of £67.5 billion in 2005<sup>12</sup>.

## Policy Costs and Benefits

84. A number of different scenarios for policy costs are shown in Table 1, depending on how costs of building to the Code reduce over time. As costs fall then the net position (costs minus benefits) improves. We have assumed a 2 per cent per annum cost reduction scenario for the remainder of this partial RIA which is in line with our commissioned research for technologies associated with renewal energy production and with water efficiency.

<sup>11</sup> Source: [www.statistics.gov.uk/about/methodology\\_by\\_theme/constructionstats/downloads/constructiondti.pdf](http://www.statistics.gov.uk/about/methodology_by_theme/constructionstats/downloads/constructiondti.pdf)

<sup>12</sup> Source: [www.statistics.gov.uk/downloads/theme\\_economy/ukea2006q2.pdf](http://www.statistics.gov.uk/downloads/theme_economy/ukea2006q2.pdf)

## Economic

85. The key economic costs are additional capital costs of construction to different levels of the Code, depending on which levels developers choose to build. The costs of energy, water and other elements of the Code (both mandatory and flexible) are presented below in Table 1(a). These are average costs and will vary around these estimates depending on the dwelling type and development scenario. The total policy costs for the 2 per cent cost scenario in Table 1 are around £4.1 million.

**Table 1(a): Average additional construction costs per dwelling of Code levels 1-6 (2008 costs)**

Code Level	Energy	Water	Other (mandatory plus flexible credits)*	Total
1	£337	£0	£378	£715
2	£1,890	£0	£708	£2,598
3	£4,626	£125	£1,236	£5,987
4	£7,077	£125	£3,173	£10,375
5	£11,478	£2,018	£3,006	£16,503
6	£29,322	£2,018	£4,046	£35,386

\*these are indicative for flexible elements

86. The main quantifiable economic benefits of option A are the financial savings for households of reduced energy bills as a result of the improvements in (a) energy efficiency of the new buildings (b) potentially lower cost of fuel from renewable sources, and water bill savings from water efficiency improvements. The total value of these benefits increase in line with the increased uptake of the Code. If costs fall by 2 per cent a year then the uptake of the Code will increase (it is assumed 5 per cent of builders will respond) and the total present value of the economic benefits (bill savings) are £14.6m (an average benefit of nearly £1m per annum). As more homes are built to the Code standards these benefits will increase, as shown in table 1.
87. Typical household savings from energy improvements vary between an average of £20 per year at Level 1 and £290 at Level 6. Some households may get higher savings (up to about £360) depending on the house type and development scenario. Households may not accrue all the benefits where managing agents or energy service companies are responsible for the energy supply, as they may capture some of the benefit as part of their business model in order to operate a viable service. Water bill savings vary between £30 (level 1-2) and £120 (level 5-6) per year on average per household, at current prices.

## Environmental

88. The Stern report highlights the economic case for taking action to reduce the threat from climate change, through reducing our greenhouse gas emissions to the environment. The Code for Sustainable Homes generates carbon savings from energy efficiency, renewable energy and from the associated reduction in energy used in water processing as a result of reduced water consumption. Annual carbon savings from energy improvements range between 0.3 tonnes of CO<sub>2</sub> at Level 3 and 2.7 tonnes

at Level 6. Further savings from water range between about 12 and 74 kg CO<sub>2</sub> per year. In the 2 per cent cost reduction scenario in Table 1, this equates to a total saving of around 20,000 tonnes of CO<sub>2</sub> in the period to 2022.

89. In addition, building to higher sustainability standards should mean there are other environmental benefits ranging from reduced waste going into landfill (through improved recycling facilities and the reduction of construction waste by introduction of site waste management plans) to more sustainable materials being used in construction (for instance sustainably sourced wood). Taking account of the ecological value of the site (for instance biodiversity) is also a key non-quantifiable benefit.

## Social

90. Social benefits will arise where developers implement the 'health and well-being' categories of the Code. These include provision of private external space, and specific standards of daylighting. Benefits will be realised through improved physical and mental health to occupants. There will also be benefit through raised awareness of sustainability and climate change amongst society. These benefits cannot be quantified.

## Option B – Introducing a mandatory rating against the Code

### Summary

91. The crucial difference between a voluntary Code and mandatory ratings is that:
- A) Uptake is likely to be higher as the Code will act as a stronger signal in the market, encouraging consumers to demand more sustainable homes, and developers will be more likely to build to higher standards particularly where there is a value to them in doing so, such as if the ongoing net benefits are more obvious to buyers. We have illustrated this with an increase in the proportion of developers that take into account the ongoing costs and benefits when building, from 5 per cent in Option A to 25 per cent in Option B (a 20 per cent improvement in 'market efficiency').
  - B) Where home builders choose not to be assessed against the Code they will incur an estimated admin cost of £10 per home due to the time taken to make a zero star certificate/statement of non-assessment available to a potential buyer.
92. The table below summarises the net present value illustrated under different cost reduction scenarios:

**Table 2: Summary costs and benefits of Option B over period 2008-2022 (net of option A): assuming 20 per cent improvement in 'market efficiency'**

<b>Cost reduction scenario</b>	<b>Increased number of assessments</b> Overall and (per annum) (£m)	<b>Present Value Admin Costs (£m)</b>	<b>Present Value policy Costs (£m)</b>	<b>Present Value Economic Benefits (£m)</b>	<b>Present Value Environmental Benefits (£m)</b>	<b>Net Present Value (Benefits – Costs) Overall and (per annum) (£m)</b>
<b>Flat costs over time</b>	212,700 (14,100 p.a.)	54.5	10.1	48.3	0.8	<b>-15.5</b> <b>(-1 p.a.)</b>
<b>2% reduction a year</b>	231,000 (15,400 p.a.)	57.4	20.3	63.3	1.4	<b>-13.0</b> <b>(-0.9 p.a.)</b>
<b>5% reduction a year</b>	456,300 (30,400 p.a.)	91.9	114.7	209.5	4.1	<b>7.9</b> <b>(0.5 p.a.)</b>
<b>10% reduction a year</b>	1,171,200 (78,000 p.a.)	200.7	429.1	745.4	12.9	<b>128.6</b> <b>(8.6 p.a.)</b>

93. The analysis shows that if we assume costs fall by 2% a year than the total costs of the policy are £77.7m in terms of present value (an average annual cost of £5.2m), and the benefits are £64.7m (an average annual benefit of £4.3m). Using this assumption of how quickly build costs fall this means that the policy has a net cost of £0.9m per annum. A number of different scenarios have been analysed, and are discussed below. These lead to a net benefit range of -£1.3m (a cost) to £129m (a benefit).
94. This shows that when the market operates efficiently 20 per cent of the time (homes are built to Code standards when there is a net benefit in doing so) there is an overall benefit to making Code rating mandatory when costs of building to the Code fall by 5 per cent a year. When the cost reduction is at the more likely figure of 2 per cent there is a net annual cost of £1m.
95. The admin cost estimate per dwelling for homes that are zero-rated/unassessed has not been tested in practice. It is possible that developers could find efficiencies with this process, particularly for larger developments. If the administration costs are assumed to be £5 (eg a quarter of an hour of someone's time at £20 per hour) per dwelling then under the scenario presented in Table 2, the policy of making Code rating mandatory costs £0.3million per year when costs fall by only 2 per cent a year. If the cost was £20 per unit, the cost would increase to £2m per year.
96. If the market efficiency rises substantially, by 50 per cent, then the policy is cost effective with a 2 per cent annual cost reduction when the admin cost is £5, and when the annual cost reduction is 4 per cent and the admin cost is £20.
97. Assuming a 2 per cent annual cost reduction, and a £10 admin fee then take-up (of Levels 1-3, but mostly at Level 1) would need to be around 50,000 for the policy to generate a net benefit to the economy. This is substantially higher than current levels of take up. However, this analysis only includes the benefits from energy and water bills and carbon savings.

98. The worse case scenario is that there are no additional homes built to Code standards. If this was the case the costs of producing a zero-star certificate/statement of non-assessment would be the only additional cost associated with this policy. Based on the current number of assessments carried out this would mean a cost of £1.3m a year or £19m in total over a 15 year period.
99. Overall, a net benefit can be achieved if (a) the market works more efficiently than we have assumed, (b) costs fall faster than we expect over time, or (c) the Code is successful as a strong signal to buyers to value sustainability and is reflected in prices. The sensitivity analysis we have performed demonstrates the effect of (a) and (b), but the effect of (c) is not currently quantifiable and as such may be underestimated in the modelling.

## **Administrative costs**

100. Administrative costs for each assessment are identical to option A but under option B uptake is higher, so the total administration cost of assessment increases. The only new cost is the zero-star certificate/statement of non-assessment. This would be downloadable from an appropriate website. We have assumed that this would take on average about half an hour of someone's time per home, costing £10, and tested what happens when this cost falls to £5 or rises to £20. If under option B there is no additional take-up of the Code over option A (the worst case scenario) then this would mean that the administrative cost would be £0.65m or £2.6m a year respectively.

## **Policy Costs and Benefits**

### ***Economic***

101. The economic costs, as in Option A, relate to the additional capital construction costs. These have been modelled on the same per unit basis as Option A. The total costs under the 2 per cent cost reduction scenario are estimated at around £25m over the 15 year period.
102. As with option A the main quantifiable economic benefit is the financial savings for households of reduced energy bills as a result of the improvements in (a) energy efficiency of the new buildings (b) potentially lower cost of fuel from renewable sources. The economic benefits accruing over the 15 year period (including a 20-year lifetime of ongoing benefits for each home built in that period) are around £63m (an average annual benefit of £4.2m). Over a 30 year period the benefits accruing are £213m (an average benefit of £14m).

### ***Environmental and Social***

103. As with option A, increased take-up against the Code would produce non-quantifiable environmental and social benefits. Ensuring more transparency in the homebuying market should enable more homebuyers to make informed choices about the sustainability of any new home they buy.

## Small Firms' Impact Test (SFIT)

104. A survey of small businesses was undertaken by the trade association *House Builders Association* on behalf of Communities and Local Government in early 2007 to assess the impact of making a rating against the Code for Sustainable Homes mandatory.
105. The *House Builders Association* identified a number of small firms to take part in the survey. The small firms confirmed that the proposal to make a rating against the Code mandatory will cause no additional burden to business processes and that the costs are negligible.

## Competition Assessment

106. The main market affected by the introduction of a mandatory rating against the Code for Sustainable Homes will be the home building and home buying markets.
107. Increasing information in the market to raise awareness of sustainability and to compare standards across new buildings should help stimulate a more competitive market. In combination with Energy Performance Certificates it should improve transparency and awareness of wider sustainability issues and energy and water costs in buying decisions. The more that on-going costs and benefits to households can be built into buying decisions, and therefore house prices, the more developers will be incentivised to respond by building to higher efficiency and sustainability standards. Developers will build more sustainably to the point where they believe they will get an additional private return from it ie where there is a demand, or if there is a risk of losing value if do not meet minimum standard demanded by consumers.
108. At present the only certification body is the Building Research Establishment (BRE). This is because the Code is based on the BRE's Ecohomes product. In return for granting the Department the right to use the Ecohomes Intellectual Property in the Code, Communities and Local Government granted BRE the right, on a concessionary basis, to train and accredit Code assessors, and to administer and maintain the Code.
109. It is envisaged that if the market for Code assessments grows then other organisations would seek to become licensed to accredit Code assessors. If other organisations wanted to offer a certification service then they would need to seek approval first from the Department for Communities and Local Government. Subject to that agreement, BRE may then offer a sub-licence agreement at commercial rates.

## Enforcement, Sanctions and Monitoring

110. At present there is no requirement to have an enforcement mechanism or sanctions in place as adoption of the Code is voluntary. Code assessments are carried out by independent assessors who may be drawn from any relevant profession, so long as they are appropriately qualified and trained. Assessors will need to be registered with a body licensed to accredit Code assessors. Accrediting bodies will quality check assessments and enforce against their members, ultimately through the sanction of cancelling their membership.

111. However if a mandatory rating is implemented then an enforcement and sanctions regime will need to be introduced. This would be subject to legislation. Our current proposals are to include the Code certificate or zero star certificate/statement of non-assessment in the Home Information Pack (HIP). It would be preferable if any enforcement and sanctions regime could align with that for the HIP. The HIP is currently enforced by Trading Standards Officers based in local authorities.
112. We will be monitoring uptake against the Code as part of data collected by the Building Research Establishment during the assessment process. We will review the policy in light of data on uptake of the Code and in light of changes to Building Regulations.

## **Declaration and Publication**

*I have read the regulatory impact assessment and I am satisfied that the benefits justify the costs*



**Yvette Cooper MP, Housing Minister**

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## Partial Regulatory Impact Assessment (PRIA) – Lifetime Homes

### Summary: Intervention and Options

**What is the problem under consideration?  
Why is government intervention necessary?**

We face a significantly ageing population. Projections show that over the next 30 years the population aged 65 years and over will rise by 70 per cent and those aged 85 or over will increase by 149 per cent. The way we build homes does not take this into account, meaning that they are insufficiently and inconsistently adaptable to changing household circumstances, often leaving occupants with unacceptable or unaffordable alternatives such as moving home or making major alterations. Lifetime Homes standards also benefit others sectors of society including people with disabilities and families.

**What are the policy objectives and the intended effects?**

This proposal aims to ensure that the housing stock become progressively more capable of responding to the needs of households by encouraging home builders to adopt Lifetime Homes standards faster than they would otherwise.

It will ensure that households, when faced with a sudden crisis such as incapacitating accident, injury or illness besetting a member, are able to make short-term adaptations to allow time to consider future needs, and longer-term adaptations should their wish be to remain in the family home.

**What policy options have been considered?  
Please justify any preferred option.**

Two options have been identified:

- a. do nothing (leave the Lifetime Homes standards as an optional element within the Code); and
- b. introduce Lifetime Homes standards as essential elements progressively to coincide with other pre-announced changes to Code requirements – the proposed introduction of mandatory ratings in 2008, and changes to energy targets in 2010 and 2013. The proposed option will permit the public sector to adapt to these changes without disturbance to planned investment programme and encourage the private sector to adopt them in line with new energy targets.

**When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?**

2010

## Summary: Analysis & Evidence

<b>COSTS</b>	<b>ANNUAL COSTS</b>		Description and scale of <b>key monetised costs</b> by 'main affected groups'  These costs relate to the private-sector for the period 2008-2010 where the assumption is that take-up of Code Level 6 will be negligible	
	<b>One-off</b> (Transition)	<b>Yrs</b>		
	£			
	<b>Average Annual Cost</b> (excluding one-off)			
	£ 0		<b>Total Cost (PV)</b>	<b>£ 0</b>
Other <b>key non-monetised costs</b> by 'main affected groups'				

<b>BENEFITS</b>	<b>ANNUAL BENEFITS</b>		Description and scale of <b>key monetised benefits</b> by 'main affected groups'  As above, the benefits are related to the private-sector take up of the Code in 2008-2010 which we assume will be minimal.	
	<b>One-off</b>	<b>Yrs</b>		
	£			
	Average Annual Benefit (excluding one-off)			
	£ 0		<b>Total Benefit (PV)</b>	<b>£0</b>
Other <b>key non-monetised benefits</b> by 'main affected groups'				

### Key Assumptions/Sensitivities/Risks

Price Base Year 2006	Time Period Years 2	<b>Net Benefit Range (NPV)</b> <b>£ 0</b>	<b>NET BENEFIT (NPV Best estimate)</b> <b>£ 0</b>
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What is the geographic coverage of the policy/option?	England			
On what date will the policy be implemented?	April 2008			
Which organisation(s) will enforce the policy?	BRE/TSOs			
What is the total annual cost of enforcement for these organisations?	£ 0			
Does enforcement comply with Hampton principles?	Yes			
Will implementation go beyond minimum EU requirements?	No			
What is the value of the proposed offsetting measure per year?	£ 0			
What is the value of changes in greenhouse gas emissions?	£ 0			
Will the proposal have a significant impact on competition?	No			
Annual cost (£-£) per organisation (excluding one-off)	Micro 0	Small 0	Medium 0	Large 0
Are any of these organisations exempt?	No	No	N/A	N/A

<b>Impact on Administration Burdens Baseline</b> (2005 Prices)			(Increase – Decrease)		
Increase of	£ 0m	Decrease of	£ 0	<b>Net Impact</b>	<b>£ 0m</b>

## Title of Proposal

1. Assessing the costs and benefits of making the Lifetime Homes standards an essential element of the Code for Sustainable Homes; at Level 6 from April 2008, at Level 4 and above from April 2010 and at Level 3 and above from April 2013. This accompanies the Partial Regulatory Impact Assessment on making rating against the Code mandatory from April 2008.

## Purpose and intended effect of measure

### Objective

2. This proposal aims to ensure that in future more new homes are built in such a way that they are better able to respond to the lifelong needs of the households that live in them.
3. It will mean that houses become better able to adapt to the needs of their occupants at different stages of their life – as they grow and as they age.
4. It will also mean that, when faced with a sudden crisis such as an incapacitating accident, injury or illness, the families living in these homes will be able to make short-term adaptations to allow time to consider future needs, and longer-term adaptations should their wish be to remain in the family home.
5. Including Lifetime Homes standards as an essential element in the Code for Sustainable Homes will achieve our aim of encouraging home builders to build to Lifetime Homes standards, and, over-time, make it the norm to do so, without resorting to additional regulatory intervention. It will contribute directly to our delivery of sustainable communities and will form an important element of our Strategy for Housing for an Ageing Society.

## Background

6. Lifetime Homes standards were developed in the 1990s as a set of sixteen criteria which together make a dwelling easier to use and adapt as a family's needs change over time. Some, such as a requirement for a level threshold and provision of a downstairs WC have already been incorporated into the Building Regulations.
7. The Lifetime Homes Standards have already been widely adopted in the public sector and many publicly funded housing developments now include them as standard. They are widely regarded as providing for a reasonable and cost effective approach to meeting the needs of all the people that may live in a house over the course of its lifetime.
8. Over recent months we have been developing a Strategy for Housing for an Ageing Society which we expect to publish in the autumn. This takes as its starting point not only a vision for inclusive communities and neighbourhoods, but also a more hopeful and realistic vision of ageing itself. As part of that we have been considering how we can further encourage the uptake of Lifetime Homes standards in the private as well as public sector.

9. We have announced in the Department's Disability Equality Scheme that we will work with the Housing Corporation – and its successor body - to ensure that most government funded new build housing schemes adopt the Lifetime Homes standards from 2010.
10. Ministers have also said in the Government response to Kate Barker's report on Housing Supply that they consider Lifetime Homes standards important, will monitor take-up, and have not ruled out regulation if it proves necessary.
11. This RIA addresses the non-regulatory option of encouraging take-up of Lifetime Homes standards through making them a required element in the Code for Sustainable Homes. It is based on the established costs of meeting the current Lifetime Homes standards. A committee of the British Standards Institution is considering changes to the standards and intends to issue a Draft for Development (DD – as a precedent to a full British Standard) later this year. The possible costs of these changes can only be assessed once they have been reviewed and published as a British Standard, probably in 2009.

## Rationale for Government Intervention

12. We are facing a significantly ageing population. The Government Actuary's projections show that over the next 30 years the population aged 65 years and over will rise from 9.7 million to 16.5 million – a 70 per cent increase. The percentage increase is even more dramatic for older age groups, with those aged 85 years and over rising by 149 per cent.
13. Currently the home building market is not reacting as quickly as necessary to meet these dramatic changes. If we do not act now to make sure that the homes we are building will meet the needs of an ageing population we will face increasing difficulties in meeting our population's needs over the coming decades.
14. There is also evidence from industry that the undersupply of inclusive homes for older people is leading to people being unable to move into more suitable accommodation and that, in turn, leading to under-occupation of family homes. This blocks the supply chain, reduces flexibility and movement in the market and drives prices up. Wider uptake of Lifetime Homes standards would allow older people to release large family homes into the market thus increasing the supply of family homes and affordability.
15. The cost of adapting houses which were not built to Lifetime Homes standards, for example for use by people with disabilities, is substantial. Encouraging greater uptake of the Lifetime Homes standards from design stage will reduce the cost of adaptations, as and when they are needed, and also reduce care costs.
16. By using inclusion within the Code as a means of demonstrating to the home building industry the preferred direction of travel, it is expected that the costs of building to Lifetime Homes standards will reduce over time and that uptake will increase – reducing the likelihood that we will need to introduce specific regulation.

## Consultation

### Within government

17. This proposal forms part of our wider strategy for improving housing for an ageing population. It has been developed in close consultation with Department of Health, Department of Work and Pensions, Department for Environment, Food and Rural Affairs and the Department for Transport.

### Public Consultation

18. This PRIA supports the Consultation Document which seeks views on these proposals.

## Options

19. Two options have been identified:
- a. do nothing (leave the Lifetime Homes standards as an optional element within the Code); and
  - b. introduce Lifetime Homes standards as an essential element at progressively lower levels of the Code.

### *Option A – Do nothing*

20. This represents the current situation and is different for the public and private sectors.
- i) Public Sector: English Partnerships and the Housing Corporation are currently both committed to building new homes to Code level 3 (which does not currently include Lifetime Homes standards as a requirement). However most schemes sponsored by English Partnerships already comply with the Lifetime Homes standards, as do approximately a quarter of all Housing Corporation funded new homes. In addition both English Partnerships and the Housing Corporation are committed to ensuring that all housing funded by them is compliant with Lifetime Homes standards from 2011 onwards.
  - ii) Private Sector: At present the vast majority of private sector home builders are not building to Lifetime Homes standards. If a home builder chooses to build to the Code they need to achieve minimum standards for energy and water and other entry level standards in the Code, but for the flexible elements (including Lifetime Homes standards) they can decide what to adopt and how to gain the points they need. It is only at the highest levels of the Code where it becomes difficult to achieve the required number of points without adopting Lifetime Homes standards. Given that very few people are currently building to levels 5 and 6 of the Code this is not currently acting as a driver of change and we could not expect to see it begin to impact on the numbers of homes being built to Lifetime Homes standards until close to 2016. In the main, private sector developers currently only build to the Lifetime Homes standards in very specific circumstances where there is a clear and immediate market advantage.

***Option B – progressive introduction of Lifetime Homes standards as an essential element of the Code at lower levels over time.***

21. The impact of this policy will be different for the public and private sectors, as follows:

- i) Public sector: as mentioned above the public sector has already agreed to adopt Lifetime Homes standards. In practice this will mean that the proportion of public sector housing incorporating Lifetime Homes standards will increase towards the end of the new (2008-2011) National Affordable Housing Programme (NAHP) and that all public-sector funded housing will be built to the standards from the 2011 NAHP (subject to a cost-benefit analysis of the revised standards when they are available). This situation will not differ with option A or B.
- ii) Private sector: In the private sector the introduction of Lifetime Homes standards as a requirement at progressively lower levels of the Code will make it harder, over time, not to adopt the standards.
  - Making the standards a requirement at Code level 6 in April 2008 will impact on only a very small number of homes. As mentioned above, it is unlikely that many people will be building to this level by this date, and those that are, are likely to be incorporating Lifetime Homes standards in any case. However, it sends a clear signal about the direction of travel and allows others in the industry time to prepare for future changes.
  - Making it a requirement at Code level 4 in April 2010 will impact on a larger number of home builders. At this point, the energy standards at Code level 3 will become mandatory for new homes through Building Regulations. As a result it is anticipated that at this time, many house builders will start to build to Code level 3 more generally and a significant number will start trying to build to the next level – Code level 4. Introducing Lifetime Homes standards at Code level 4 at this point, won't therefore impact on those that are just 'keeping up' but will impact on those that are aiming to be exemplary.
  - Finally, introducing Lifetime Homes as a requirement at level 3 of the Code in 2013 will make it clear that by this time we expect the house building industry to have made the standards as a core part of their standard build practices. By this time we expect that many people will be building to Code level 4 (again as a result of the energy performance standards at Code level 4 having been adopted into building regulations). Including Lifetime Homes as a requirement at Code level 3 and above will at this point impact on the majority of people choosing to build to the Code (very few of whom would at this point be choosing to build at levels below level 3).

22. Assuming that our proposal to introduce mandatory rating against the Code encourages take-up of the Code amongst home builders, option B would, as described above, result in Lifetime Homes standards being adopted into private house building practice quicker than would otherwise be the case.

21. It is important to remember however that take-up of the Code is only encouraged by making it mandatory for all new homes to have a rating. It is not required to reach any specific level. As we have explained in the accompanying partial RIA on making rating against the Code mandatory, there is currently no reliable data available for robustly predicting what future uptake of the Code will be, either if the Code remains voluntary or if rating is made mandatory.

22. In the absence of this information, the cost/benefit analysis presented below has been prepared on the assumption that all new homes are built to Lifetime Homes standards. Overall it indicates that if this were to be the case, the costs of building to these standards and the overall benefits to the economy of doing so would be broadly in balance.
23. In practice, however, it is expected that home builders in the private sector will only build to Code standards if there is no net cost to doing so. Therefore if there is no take up of the Code (because there is no net benefit for house builders) there will be no net costs. If house builders do take up the Code it will be because they think there is a net benefit to do so.
24. Taking account of these factors, it is difficult to demonstrate at this point the true potential impact of these proposals. The introduction of the Lifetime Homes standard as a required element at Code level 6 in April 2008 will have negligible costs associated with it (due to the very small numbers of houses that will be built to this standard between 2008-10) However, the lack of robust data in predicting future uptake of the Code in the private sector means that it is not possible to do an accurate cost and benefit analysis for 2010 and 2013 at this stage.
25. This analysis therefore considers the costs and benefits of building to the Lifetime Homes standards in different house-types and in different scenarios. It does not attempt to aggregate these costs and benefits and consider the impact on uptake of the Code, due to the inherent uncertainty in this.

## Alternative options considered

24. Variations on the dates and Code Levels at which the Lifetime Homes standards might be introduced as essential elements of the Code have been considered and rejected, either as inequitable to one or other of the private or public sector, or as departing from the widely understood timetable of changes to Building Regulations which will reflect the energy elements of the Code in 2010, 2013 and 2016.

## Costs and Benefits

### Sectors and Groups affected

25. Public sector home building is, as indicated above, already committed to building to the Lifetime Homes standards.
26. Private sector home builders will still have the choice of building to the Code, or to minimum Building Regulations standards.

### *Race equality assessment*

27. Making Lifetime Homes standards an essential element of the Code should not have any impact on race equality.

### ***Gender equality assessment***

28. Making it easier to continue independent life in the family home in old age may benefit women more than men to the extent that their life expectancy is greater and on average the period of time spent with some mobility impairment may be greater.

### ***Health impact assessment***

29. Making Lifetime Homes standards an essential element of the Code is expected to have the following impacts on health and costs attributed to health:

- building to Lifetime Homes standards could reduce, or delay, the need for people to move into residential care, the cost of which is substantially higher than home-based care;
- building to Lifetime Homes standards could reduce the demand for temporary residential care when people are discharged from hospital or for other reasons;
- considerable cost savings could be secured if greater provision of Lifetime Homes contributed to freeing up acute beds in hospitals currently occupied by people that the hospital wants to discharge, but cannot because of shortages in suitable accommodations and care arrangements;
- providing adaptations for disabled people is a lengthy process which can take over a year. In addition to the social cost of such delays there is a real economic cost in that many disabled people have to have extra care provided until the home is adapted. Adoption of Lifetime Homes standards would reduce the need for home care.

### ***Rural considerations***

30. There are not expected to be any specific rural considerations associated with this policy.

### **Small firms impact assessment**

31. A survey of small businesses undertaken by the trade association House Builders Association examined the impact on small business of the proposal to make Code ratings mandatory. It found that this will cause no additional burden to business processes and that the costs are negligible. As uptake of any particular Code level is voluntary it is expected that the impact on small firms of making the Lifetime Homes standard an essential element of the Code is also negligible.

### ***Competition assessment***

32. Competition is expected to bring down the costs of compliance for those home builders who choose to take the Code route.

## Breakdown of costs and benefits

### Economic cost

33. There have been a number of studies into the costs and benefits of building to the Lifetime Homes standards. These have concluded that the costs range from £545 to £1615 per dwelling, depending on:
- the experience of the home designer and builder;
  - the size of the dwelling (it is easier to design larger dwellings that incorporate Lifetime Homes standards cost effectively than smaller ones);
  - whether Lifetime Homes standards were designed into developments from the outset or whether a standard house type is modified (it is more cost effective to incorporate the standards at the design stage rather than modify standard designs); and
  - any analysis of costs is a 'snapshot' in time. The net cost of implementing Lifetime Homes will diminish as the concept is more widely adopted and as design standards, and market expectations, rise.
34. The most significant factor when considering costs was whether the home had been designed to incorporate Lifetime Homes standards from the outset or whether a standard design had been modified.
35. In 1997 Sangster<sup>13</sup> looked at costs when incorporating Lifetime homes standards from design stage and found that extra costs could be as low as £90 for a three-bedroom, five-person social rented house, and £100 for the same size house in the private sector. The study found that most of the Lifetime Homes standards cost nothing when designed in at the beginning. The inclusion of a downstairs toilet, with the possibility to incorporate a shower later, incurred the highest cost. With the exception of the two-bedroom, four-person house, the extra cost associated with the toilet was £69.
36. Taking the same approach as the Sangster study, Martin<sup>14</sup> in 2006 updated the costs and estimated additional costs to be:

Standard	Costs per dwelling (£)
Communal stairs and lifts	Negligible
Doorways and hallways	Negligible
Entrance level WC and shower drainage	120
Bathroom and WC walls	50
Entrance level bedspace	100
Stair lift/through floor lift	60
Tracking hoist route	25
Increasing floor area of 2 bed houses to 70m <sup>2</sup>	192
<b>Total</b>	<b>547</b>

<sup>13</sup> Sangster K. (Walker Richardson QS) *Costing Lifetime Homes*. York: Joseph Rowntree Foundation 1997

<sup>14</sup> Martin J, Martin A *The Cost of the Lifetime Homes Initiative* RICS Building Cost Information Service 2006 (unpublished study for ODPM)

37. Cyril Sweett<sup>15</sup> when considering the implications of moving from EcoHomes Very Good to the draft Code for Sustainable Homes (CSH) concluded that Lifetime Homes did not have a significant impact on overall project costs because the requirements of the revised Part M of Building Regulations now require many of the same considerations to be addressed as a matter of course. It is estimated that compliance with the Lifetime Homes standard could result in additional costs of around £550 per home.
38. A study commissioned in Northern Ireland<sup>16</sup> estimated the additional costs of building to the Lifetime Homes standards to be between £165 and a maximum of £545. The study noted that because Parker Morris floor space standards had been retained for social housing in Northern Ireland, in most instances it would be possible to incorporate the Lifetime Home standards without adding to the overall areas.
39. However Ainsley Gommon<sup>17</sup> found that when standard house designs are modified it could cost in the region of £1,500 extra per family dwelling and that the ‘extra-over’ area required to accommodate the standards for each of three ‘pattern-book’ house types. The study found the extra space required for and cost of providing the standards was respectively:

House type	4 person 2 bed	4 person 3 bed	5 person 3 bed
Base build area	72.5m <sup>2</sup>	78.9m <sup>2</sup>	85.00m <sup>2</sup>
Extra-over area	4.47m <sup>2</sup>	3.78m <sup>2</sup>	3.00m <sup>2</sup>
Extra cost	£1615	£1570	£1435

40. English Partnerships commissioned a *Lessons Learnt* study<sup>18</sup> on its policy guidance document *Quality and Price Standards – for use in development competitions and site disposal tendering* which has been tested on several English Partnerships sites that incorporated mandatory Lifetime Homes standards for development of its sites and for its funding of projects. The *Lessons Learnt* study sets out lessons learned from the Design for Manufacture competition (the ‘£60k house’) which has resulted in application of the Quality and Price Standards over a development season, with approximately 1000 houses in the pipeline. The objective of the competition was to challenge the home building industry to re-think its design and construction processes to demonstrate that new sustainable homes can be achieved at affordable costs without sacrificing quality or space standards.
41. The lessons learnt show that:
- developers will be achieving densities of over 60 homes per hectare in suburban locations, mainly with houses;
  - the imaginative response by bidders to Lifetime Homes principles has also shown that additional costs can be avoided if they are designed-out early enough. So every home can be a truly inclusive home for people with disabilities or for the elderly or for families with young children;

<sup>15</sup> Cyril Sweett *A cost review of the draft code for sustainable homes: Report for English Partnerships and the Housing Corporation*, October 2006

<sup>16</sup> Blythe A, O’Brien P, McDaid S *Lifetime homes in Northern Ireland: evolution or revolution*. Belfast: Joseph Rowntree Foundation, Chartered Institute of Housing (NI) 2002

<sup>17</sup> Ainsley Gommon Architects & Tweed QS *Lifetime Homes Desktop Study*. Cardiff: National Assembly for Wales 1999.

<sup>18</sup> *Design for Manufacture – Lessons Learnt* CLG & English Partnerships 2006

- quality and cost are compatible. Homes in the competition are at least 76.5 sq m gross internal floor area so cost savings are not being achieved by making homes smaller. No development subsidy has been given by the public sector to these sites, demonstrating that such achievements can be repeated on private land in future.

## The Benefits of Lifetime Homes

42. Cobbold<sup>19</sup> looked into the benefits of Lifetime homes and concluded that:

- In 1994, over £350M was spent on providing adaptations for disabled people;
- 60% of all adaptation costs were met from public funds;
- the need for adaptations will increase as the population ages;
- much of the future expenditure is unavoidable since it will entail adaptations to existing housing;
- however, the future growth in expenditure on adaptations could be curbed if all new dwellings were built to Lifetime Homes standards;
- building to Lifetime Homes standards could reduce, or delay, the need for people to move into residential care, the cost of which is substantially higher than home-based care;
- building to Lifetime Homes standards could reduce the demand for temporary residential care when people are discharged from hospital or for other reasons;
- considerable cost savings could be secured if greater provision of Lifetime Homes contributed to freeing up acute beds in hospitals currently occupied by people that the hospital wants to discharge, but cannot because of shortages in suitable accommodations and care arrangements;
- providing adaptations for disabled people is a lengthy process which can take over a year. In addition to the social cost of such delays there is a real economic cost in that many disabled people have to have extra care provided until the home is adapted. Adoption of Lifetime Homes standards would reduce the need for home care;
- building to Lifetime Homes standards could also secure significant savings in expenditure on minor adaptations;
- both householders and social housing providers incur significant costs when occupiers have to move home, because their home simply cannot be adapted to meet their requirements or because adaptation would be too expensive. If houses were designed to Lifetime Homes standards many fewer people would have to move home;
- building to Lifetime Homes standards would reduce costs associated with removing adaptations such as access ramps when the occupant for whom the adaptations were provided moves or dies;
- the widespread adoption of Lifetime Homes standards would have real quality of life benefits for disabled people and carers;

<sup>19</sup> Cobbold C, *A cost benefit analysis of Lifetime Homes*, Pleda plc, 1997

43. Sangster also identified savings associated with reductions in the number and severity of accidents in the home.

## Non-economic benefits

### Sustainability

44. Future proofing new build housing fits well with the sustainability agenda. Communities and Local Government will publish a Strategy for Housing for an Ageing Society later in the year and consultation has put Lifetime Homes standards consistently as a top issue. We will see a large increase in the numbers of older and disabled people within as little as 10 years and a dramatically increasing demand for inclusive housing.

### Functionality, promoting independent living and housing quality

45. The design of Lifetime Homes standards is well tested to make homes more functional, flexible and adaptable for the majority of the population. Millions of disabled and older people and families with young children have to manage around the poor design of homes. Unnecessary steps or flights of stairs into houses and flats are equally problematic for a parent with two children and shopping in a buggy as for a frail older person. Unfortunately, many older and disabled people are unable to use much of their home or their use is significantly constrained (e.g. they can no longer use upstairs), or they end up moving out of their home because their health deteriorates and the home is poorly designed or too inflexible to adapt. Lifetime Homes address these design flaws promoting better functionality for all and independent living.

### Increasing the supply of family homes and improving affordability

46. There is evidence from industry that the undersupply of inclusive homes for older people is leading to under-occupation of family homes by older people. In 2003, 3.2 million private sector households, where the oldest person is 60 or more, were under-occupying their homes (2 or more spare bedrooms). For the social sector this figure was 300,000.<sup>20</sup> A proportion of these homes are unsuitable for older people but they are unable to move as there are no smaller inclusive homes available to buy. This blocks the supply chain, reduces flexibility and movement in the market and drives prices up. Lifetime Homes standards would allow older people to release large family homes into the market thus increasing the supply of family homes and affordability.

### Cost/Benefit Analysis

47. The cost of adapting houses for use by disabled people can be costly (**in excess of £430m per year<sup>1</sup>**). These costs can be reduced by ensuring that new houses are built to Lifetime Homes standards.

<sup>20</sup> English House Condition Survey 2003

48. According to the 1996 Piedad study<sup>21</sup> the cost of adapting a Lifetime Home for use by a disabled person is **£1420 less** (at 2006 prices) than adapting homes built to existing standards. On the assumption that around 34,000 homes need to be adapted each year this is an **annual cost saving of £50m**.
49. However the 2006 BCIS report<sup>22</sup> shows that building houses to Lifetime Homes Standards incurs an **additional cost of around £547 per dwelling**. This is an **annual cost of around £93m**.
50. Due to the nature of the home building market it is unlikely that these additional costs will be passed on in the form of higher house prices. Instead the landowner will bear the burden of the increased costs in the form of a lower price for the land.
51. But there are additional benefits to Lifetime Homes:
- **Reduced need to move into residential care:** The adoption of Lifetime Homes standards would make it consistently easier for disabled people to remain living in their home.
  - **Savings in home care costs:** Over half a million households in England received home help in 1994. Lifetime Homes may reduce the need for some of this home care.
  - **Savings in health care costs:** Where people cannot be discharged because of difficulty of securing places in residential or nursing homes, or they cannot return home the health service bears additional costs.
  - **Reduced cost of rehousing disabled people:** There are both administrative (maintaining lists of suitable properties and those needing to move) and financial costs associated with moving (stamp duty fees, solicitor's fees). A reduced need to move would help reduce these costs.
  - **Savings in the costs of minor adaptations:** Minor adaptations are those costing less than £500.
  - **Savings in administrative costs:** Public funding of adaptations incurs substantial administrative costs.
  - **Reduced costs of removing adaptations:** When a home switches from use by a disabled person to an able bodied person adaptations may have to be removed. This may be cheaper with Lifetime Homes.
52. The 1996 Piedad study values these additional benefits at around £43m per year.
53. Therefore the total quantified benefits are £92.5m per year while the costs are £92.9m per year meaning costs are roughly equal to benefits.

<sup>21</sup> A cost benefit analysis of Lifetime Homes, 1996, Piedad Plc

<sup>22</sup> The Cost of Lifetime Homes, July 2006, BCIS

**Table 1: Summary of costs and benefits**

<b>Benefits</b>	<b>Costs</b>
Reduced cost of adaptations to dwellings for disabled people (£49.6m per year)	Increased costs of building all homes to Lifetime Homes Standards (£92.9m per year)
Reduced need to move into residential care (£5.6m per year)	Effect on value of properties
Savings in home care costs (£21.5m per year)	
Savings in health care costs	
Reduced costs of rehousing disabled people (£2.5m per year)	
Savings in the costs of minor adaptations <sup>24</sup> (£10.6m per year)	
Savings in administrative costs (£2.7m per year)	
Reduced costs of removing adaptations	
<b>TOTAL: £92.5m</b>	<b>TOTAL: £92.9m</b>

<sup>23</sup> Minor adaptation is defined as one costing less than £500.

## Appendix A: Benefit Assumptions

1. The benefits are based on the 1996 Piedad study: *'A cost benefit analysis of Lifetime Homes'*.
2. 170,000 houses are built each year.
3. 20% of houses built each year (34,000) are adapted for disabled use.
4. A house built to current norms costs, on average, £2,132 to adapt whilst a Lifetime Home costs only £987 to adapt representing a saving of £1145 (at 1996 prices).
5. A cost saving of £1145 for each of the 34,000 houses produces an annual saving of £38.9m.
6. These benefits are based on 1996 prices. Once they are adjusted for inflation using the HMT deflator series the saving per dwelling is **£1420** and the annual saving is **£49.6m**.

## Appendix B: Cost Assumptions

1. The costs are based on the 2006 BCIS report: *The Cost of Lifetime Homes*. A breakdown of the costs are provided in the table below:

Standard	Costs per dwelling (£)
Communal stairs and lifts	Negligible
Doorways and hallways	Negligible
Entrance level WC and shower drainage	120
Bathroom and WC walls	50
Entrance level bedspace	100
Stair lift/through floor lift	60
Tracking hoist route	25
Increasing floor area of 2 bed houses to 70m <sup>2</sup>	192
Lifts in low-rise flats	1190
<b>Total</b>	<b>1737</b>

2. To be consistent with the Piedad study we assume that 170,000 houses are built each year leading to an annual cost of £295.3m.
3. **NB:** the BCIS report included the cost of lifts in apartment blocks as this information was requested to inform policy development. For the purposes of this assessment, however, the cost of lifts can be discounted from the cost/benefit analysis. Should a decision be taken to include Lifetime Homes standards in Building Regulations in the future, based on new British Standards guidance which will include lifts in apartment buildings, further cost analysis will be necessary.

## Declaration and Publication

*I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs*



**Yvette Cooper MP, Housing Minister**

### **Contact point for enquiries and comments:**

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# Annex D

## Examples of a zero star certificate, statement of non-assessment and Code certificate

### 1) Zero star certificate



This home  
**ADDRESS**  
**ADDRESS**

The Code for Sustainable Homes sets out higher standards for a range of environmental sustainability categories, including for energy/carbon dioxide emissions, water and materials.

This home has not been assessed against the Code and cannot therefore be considered to meet the enhanced environmental performance standards set out in that Code. New homes still have to meet minimum standards as set out in Building Regulations, but these are below the standards set out in the Code.

An assessment of the home's energy performance will be shown on this home's Energy Performance Certificate.

**ZERO★RATED**

\_\_\_\_\_  
Developer

\_\_\_\_\_  
Date

## 2) Statement of non-assessment

Company Logo

Company Name

Company Address

### The Code for Sustainable Homes

The Code for Sustainable Homes sets out higher standards for a range of environmental sustainability categories, including for energy/carbon dioxide emissions, water and materials. This home [insert address] has not been assessed against the Code and cannot therefore be considered to meet the enhanced environmental performance standards set out in that Code. New homes still have to meet minimum standards as set out in Building Regulations, but these are below the standards set out in the Code.

An assessment of the home's energy performance will be shown on this home's Energy Performance Certificate.

More information on the Code for Sustainable Homes can be found at [www.communities.gov.uk/thecode](http://www.communities.gov.uk/thecode)

Signed \_\_\_\_\_

Date \_\_\_\_\_

### 3) Code certificate front

**THE CODE FOR SUSTAINABLE HOMES**

**FINAL CERTIFICATE**  
(issued at the post construction stage)



#### ISSUED TO:

**10 Acacia Avenue, Greensville**  
**Big Hampshire, MK62 4PQ**

The sustainability of this home has been independently assessed at the post construction stage and has achieved a Code rating of 5 out of 6 stars



The next page sets out how this home achieved its rating in the nine categories

_____ Licensed Assessor	_____ Assessment Organisation
_____ Date	_____ Signed on behalf of BREC Ltd
_____ Architect	_____ Client
_____ Developer	_____ Certificate number
_____	_____

Note: This Certificate has been issued at Post Construction Stage.



This certificate remains the property of BRE Certification Ltd and is issued subject to terms and conditions. It is maintained and held in force through annual review and verification. To check the authenticity of this certificate please contact BRE Certification Ltd



## 4) Code certificate – back

# THE CODE FOR SUSTAINABLE HOMES

## FINAL CERTIFICATE

(issued at the post construction stage)

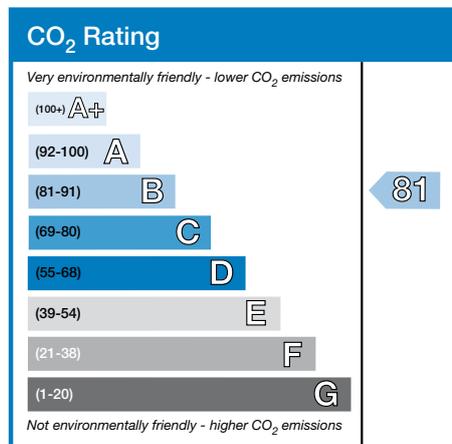


### What Your Code Star Rating Means

The Code considers the effects on the environment caused by the development and occupation of a home. To achieve a star rating a home must perform better than a new home built to minimum legal standards, and much better than an average existing home.

How this home scored											
Category	Percentage % of score attained										What is covered in the category
	10	20	30	40	50	60	70	80	90	100	
<b>Energy</b>	█	█	█	█	█	█	█	█	█	█	Energy efficiency and CO <sub>2</sub> saving measures
<b>Water</b>	█	█	█	█	█	█	█	█	█	█	Internal and external water saving measures
<b>Materials</b>	█	█	█	█	█	█	█	█	█	█	The sourcing and environmental impact of materials used to build the home
<b>Surface water run off</b>	█	█	█	█	█	█	█	█	█	█	Measures to reduce the risk of flooding and surface water run-off; which can pollute rivers
<b>Waste</b>	█	█	█	█	█	█	█	█	█	█	Storage for recyclable waste and compost, and care taken to reduce, reuse and recycle construction materials
<b>Pollution</b>	█	█	█	█	█	█	█	█	█	█	The use of insulation materials and heating systems that do not add to global warming
<b>Health and Well being</b>	█	█	█	█	█	█	█	█	█	█	Provision of good daylight quality, sound insulation, private space, accessibility and adaptability
<b>Management</b>	█	█	█	█	█	█	█	█	█	█	A Home User Guide, designing in security, and reducing the impact of construction
<b>Ecology</b>	█	█	█	█	█	█	█	█	█	█	Protection and enhancement of the ecology of the area and efficient use of building land

Further detailed information regarding the Code for Sustainable homes can be found at [www.communities.gov.uk/thecode](http://www.communities.gov.uk/thecode)



The CO<sub>2</sub> rating is a measure of a home's Carbon Dioxide (CO<sub>2</sub>) emissions. This rating is shown on your Energy Performance Certificate as the Environmental Impact Rating. This Certificate is available from the seller, and also includes information on how you can improve the home's performance.

The Code measures the sustainability of a home as a complete package, and takes into account other aspects of energy use as well as wider sustainability issues, such as water and waste.

The CO<sub>2</sub>/Environmental Impact Rating is shown here for information only and does not form part of the Code for Sustainable Homes. Neither BRE nor the assessment organisation is responsible for the accuracy of this number.



Acacia Road - ECO-XXX-001

