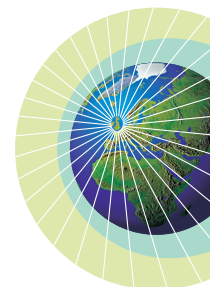


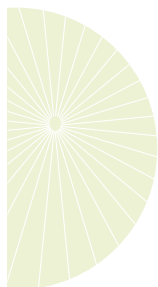
# Executive summary



This consultation on the Government's Heat and Energy Saving Strategy sets out an aim for emissions from existing buildings to be approaching zero by 2050. This means increasing the scope and ambition of our energy saving measures, as well as decarbonising the generation and supply of heat. To support this, it sets out the following key policy proposals:

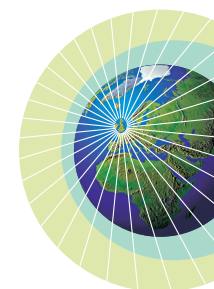
- All homes to have received by 2030 a 'whole house' package including all cost-effective energy saving measures, plus renewable heat and electricity measures as appropriate. All lofts and cavity walls will be insulated where practical by 2015.
- Comprehensive information and advice to be made available to help people make changes to save energy and save money – including widespread availability of home energy advice by accredited advisers.
- Development of new ways to provide financial support so people can make more substantial energy saving and renewable energy improvements to their homes through mechanisms that allow costs to be more than offset by energy bill savings.
- Consideration of whether a new delivery model is needed, to allow a more coordinated approach to rolling out improvements to homes and communities, house-by-house and street-by-street.
- Consideration of widening requirements under Building Regulations to carry out energy saving measures alongside certain types of building work, and consideration of a new voluntary code of practice with the building trade on energy efficiency and low carbon energy.
- A new focus on district heating in suitable communities, and removing barriers to their development.
- Encouragement of combined heat and power and better use of surplus heat through carbon pricing mechanisms.

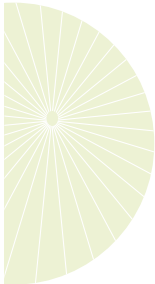
Taken together, the policies in this consultation will aim to reduce annual emissions by up to 44 million tonnes of CO<sub>2</sub> in 2020 – the equivalent of a 30% reduction in emissions from households compared to 2006 – making a significant contribution to meeting our carbon budgets.



1. The Government's strategy for saving energy and decarbonising our heating, now and into the future, has four main objectives:
  - to help more people in these difficult economic times, and over the long term, to reduce their energy bills by using less energy;
  - to reduce the UK's emissions and increase our use of renewable energy in line with the demands of our carbon budgets, our renewables target and our ultimate target to reduce greenhouse gas emissions by 80% by 2050;
  - to help us to maintain secure, diverse energy supplies; and
  - to take advantage of the economic opportunities presented by the shift to a low carbon economy in the UK and in the rest of the world, helping us during the current economic downturn and over the long term.
2. We need to achieve these objectives in a fair way. The changes we intend to make will bring opportunities to save energy and save money. We must ensure that all consumers are able to access these change so that everyone can reap the benefits of the move to a low carbon economy.
3. We have already achieved a great deal. The Government's existing programmes have, each year, saved enough gas to heat 330,000 homes and from 2016 all new homes will be zero carbon. However, we know there is still more to do. That is why, in September 2008, the Prime Minister announced a new package of proposed measures which could help families to reduce their fuel bills, by £300 per year.
4. By 2015, we aim to have insulated all the lofts and cavity walls where it is practicable to do so. However, this will not be enough to achieve the ambitions for our 2050 target of cutting emissions by 80%. The difficulty in removing carbon emissions from some sectors of the economy means that we have to plan to be even more ambitious in other sectors where decarbonisation is more feasible, such as buildings.
5. Once we have exhausted the opportunities to take the easier actions, such as insulating lofts and cavity walls, the task will become harder. We will have to make more substantial changes to homes – such as small-scale energy generation and solid wall insulation. So we need to increase our level of ambition, and we need to start building capacity to do this more challenging work now. We aim to help some seven million homes to take up these substantial changes by 2020.
6. These new ways of using energy in our homes will require a new approach to delivering our policies. The current delivery model, the Carbon Emissions Reduction Target, (CERT) has seen energy suppliers under an obligation set by the Government to achieve certain emissions reductions. Suppliers have mainly achieved this by installing the simpler energy efficiency measures into individual households. We propose that this model continues, under CERT, until 2012. However, beyond this we will need to use a more coordinated, community-based approach, working door-to-door and street-to-street to cover the needs of the whole house. The proposed new Community Energy Savings Programme (CESP), to be launched this year, will be a pilot for this more coordinated approach.

7. As a first step, we want all householders to have access to comprehensive Home Energy Advice, providing reliable information and advice about how to improve the energy performance of their homes in the most cost-effective way.
8. We will then need to ensure that our systems for delivering these measures on the ground are appropriate for the new approaches we need. Therefore we are asking for views and supporting evidence on options for a new delivery model, which include amending the current supplier-led approach and considering a single coordinating body. A new approach could allow greater coordination and targeting of packages of energy saving and renewable energy measures, to meet the needs of a whole house or community. A new model could make it easier for householders to understand and access the support available. It could stimulate greater competition by encouraging new companies to enter the market to provide energy services. It could also encourage more effective partnerships with local authorities and communities on larger projects covering whole streets and neighbourhoods.
9. The shift from installing low-cost insulation to more significant improvements to homes will also require a new approach to financing these energy saving measures. While these improvements can help people to save money on energy bills in the long term, initial costs can be high. This consultation therefore puts forward proposals for new finance models that spread the costs of the investment over time, so that savings on bills more than offset the cost of repayments. This will require new ways of allowing the finance to stay with the house that benefits from the energy efficiency improvements, even if the original owner moves. We are also considering how we could work with private landlords to help them improve properties to benefit their tenants. All of this will need to link to the new financial support we are providing for renewable heat and small-scale renewable electricity generation.
10. We believe that new approaches to delivery and finance mechanisms are essential to achieve the necessary step change in how we use energy. However, there is also a role for regulation. We already have regulatory mechanisms to set minimum standards for our buildings and the electrical products we use. The Government's priority will be to ensure these are effective and properly enforced. We will return to the question of further regulation, if necessary, at the end of the first carbon budget period in 2012.
11. The first step will always be to find ways to save energy. Even so, we will continue to need to heat our homes and businesses. So we also need to look at decarbonising the way we generate heat. This will mean new ways of providing low carbon heat to whole communities, using surplus (or waste) heat more effectively and generating heat and power together.
12. Modern district heating offers the potential to cut energy bills and reduce CO<sub>2</sub> emissions, and we want to help district heating networks to develop in those communities where it makes sense. The Government wants to ensure that local government plays a full role in the development of renewable and low carbon heat and electricity. We will be convening a Summit on Community Energy and Heating with local government leaders to facilitate the development and expansion of district heating, and convening a Heat Markets Forum to ensure an appropriate market framework is in place.

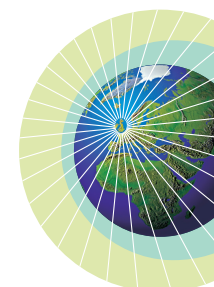


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13. Combined heat and power (CHP) generation is supported by a number of policies, such as the EU Emissions Trading Scheme (ETS), exemption from the Climate Change Levy and the Renewables Obligation. CHP will also benefit from the forthcoming financial support for renewable heat. We will look to ensure that this range of carbon pricing mechanisms provides sufficient support to CHP.
  14. Overall, our new increased ambition and the measures we propose in this strategy will put us on the path to reduce emissions from buildings by more than 80% by 2050, in a fair and affordable way.
  15. Taken together, the policies in this consultation will aim to reduce annual emissions by up to 44 million tonnes of CO<sub>2</sub> (MtCO<sub>2</sub>) per year by 2020. This is the equivalent to a 30% reduction in emissions from households compared to 2006. Together with the proposed increase to the Carbon Emissions Reduction Target and the proposed new Community Energy Saving Programme, we aim to reduce emissions by up to 50 MtCO<sub>2</sub> per year by 2020.
  16. This programme will offer major economic opportunities for British business during this difficult economic time and over the long term. If the level of ambition set out above is achieved, then there will be approximately 34,000 jobs installing and maintaining whole-house packages<sup>1</sup>. The wider low carbon environmental goods and services sector currently employs over 880,000 people in the UK. This is expected to increase to over one million by the middle of the next decade<sup>2</sup>.
  17. Proposals in this document are forecast to reduce our demand for imported fossil fuels. For example, demand for gas will fall by 12% by 2020. This will contribute to the objectives of the new Department of Energy and Climate Change (DECC) of reducing our carbon emissions and maintaining secure and sustainable energy supplies.
  18. All sections of society need to work together to achieve these aims – individual householders, communities, businesses, the public sector and industry. This consultation covers all these sectors, although much of the emphasis is on existing domestic buildings, where we need to increase our ambitions for saving energy and reducing emissions. The Government recognises that it will need to lead this process, both through its own actions and by ensuring that the social stock leads the way, as it has done through the Decent Homes Programme for energy efficiency to date, and to provide for incentives to support the change.
  19. This consultation is being jointly conducted between the Department of Energy and Climate Change and the Department for Communities and Local Government. We are also grateful to the UK Green Building Council for their work pulling together a wide range of stakeholder ideas and views in preparation for this consultation, and particularly for their report *Low carbon existing homes*.

1 These jobs are related to installation and maintenance only and do not take into account jobs in the supply chain or impacts on jobs in the wider economy .

2 **Innovas** (2009) Low Carbon and Environmental Goods and Services: an industry analysis, [www.berr.gov.uk](http://www.berr.gov.uk)

20. This is the first in a series of consultations with other departments on key issues on climate change and energy that will lead to the publication, later this year, of our overarching plan for how we meet our carbon budgets. We want to hear your views on the proposals in this document.
21. The key proposals in this consultation document are summarised below.



### Chapter 1 – Introduction

This chapter sets out in more detail the context for this strategy and the ambitions summarised above. It describes the challenges we will have to overcome to meet these ambitions, and our broad approach for doing so. We invite your views both on the level of our ambition and our broad approach for achieving it.

### Chapter 2 – Helping people to change behaviour and take action

This chapter sets out how we can ensure that people have the information, technology and motivation to change their behaviour and take action to save energy. Some support is already available, for example through the Act on CO<sub>2</sub> advice line and devolved equivalents. Energy Performance Certificates provide information on the energy efficiency of a property, its potential efficiency and what it would take to achieve that potential. Smart meters – which provide detailed, real-time information on energy use – will be rolled out to all homes, to give consumers and energy suppliers better information about energy use in individual households.

However, there is more that the Government can do. We want to move to an approach where the energy needs of a ‘whole house’ are considered systematically. We plan to expand the availability of Home Energy Advice and to train Domestic Energy Assessors to provide this advice, and we will consider developing accreditation for professionals providing advice and installation of energy efficiency measures.

### Chapter 3 – Financing energy saving and low carbon energy

As we move to more difficult energy saving and energy generation measures, with higher initial costs, we will need to supplement or combine other subsidies with other financing mechanisms. These will allow the costs of these measures to be more than offset by the energy bill savings. Finance needs to be easy to understand, comprehensive and flexible, covering insulation and renewable energy, depending on the household. It must also have proper protection and safeguards for consumers.

We are also seeking views on how the Renewable Heat Incentive could provide different levels of support for different technologies or sectors (e.g. households, communities and industry), whether the Renewable Heat Incentive should be made available as an upfront payment for small-scale renewable heat technologies, and how to maintain demand for renewable heat before the Renewable Heat Incentive comes into operation.

## Chapter 4 – Delivery

The new challenges of delivering more substantial energy efficiency measures and low carbon energy to all types of buildings mean we need to rethink how we deliver energy improvements to people on the ground. As we start to roll out more substantial and more costly measures, it becomes even more important to focus on the needs of the poorest and most vulnerable people in society, to ensure a fair outcome.

Under the current strategy for delivering energy efficiency, the Carbon Emissions Reduction Target (CERT), energy suppliers have a statutory obligation to achieve an overall carbon emissions reduction target. While suppliers have been able to meet this target, mainly by concentrating on the simpler energy efficiency measures such as loft insulation, we need to consider whether this model will be appropriate for meeting the new challenges. This consultation proposes continuing the existing supplier-led CERT model up to December 2012. However, for the longer term we will need to consider a more coordinated, community-based approach, which can cover the needs of the whole house. The proposed new Community Energy Savings Programme, to be launched this year, will be a pilot for this kind of model. Therefore we are asking for views and supporting evidence on a number of options for a new delivery model, which include amendments to the current supplier-led approach and consideration of a single coordinating body. Our aim, in examining these options, is to provide a more coordinated and systematic approach to the provision of a wide range of energy saving and low carbon energy measures to households.

## Chapter 5 – Stronger incentives to move to a low carbon future

We believe that our new proposals on finance and delivery can ensure that we achieve our ambitions. However, there may still be a case in the future for strengthening legal standards for some or all of the existing building stock, in order to promote higher standards. Firstly, we want to ensure that existing regulation is as effective as possible and achieves the desired outcomes. So the Government will examine how existing tools, such as Energy Performance Certificates and Building Regulations, can encourage the take-up of opportunities to improve the energy efficiency of buildings. This will include considering widening requirements under Building Regulations to include energy saving measures alongside certain types of building work, so long as it is cost effective to do so.

We are considering working with representatives of the building trade to design a voluntary code of practice on energy efficiency and low carbon energy. Another option would be to increase awareness of Energy Performance Certificates. In addition, the Government is considering the recommendations of the Rugg review of the private rental sector, which, if implemented, could improve energy efficiency in this sector. As part of this process, the Government will keep the need for new regulation under review, returning to the question of regulation at the end of the first carbon budget period if sufficient progress is not made using other tools.

## Chapter 6 – District heating

As well as a whole-house approach to energy efficiency, we need also to consider community and larger-scale solutions for clean and efficient generation of the heating we use. If we are to achieve the UK's goals for saving energy, reducing emissions of CO<sub>2</sub> and maintaining energy security, we need to produce and use heat more efficiently.

District heating offers the potential to cut energy bills and reduce CO<sub>2</sub> emissions. However, the networks are expensive to install and the lack of experience of district heating in the UK, coupled with lengthy payback periods, mean that district heating is not currently attractive in the present commercial and regulatory environment. We are setting out a suite of possible measures aimed at tackling key barriers to district heating. These include considering changing regulation, enhancing the role of local authorities and improving the supply chain. We will convene a Local Authority Summit on Community Energy and Heating, as an opportunity for local authorities, community energy generation experts and central government policy makers to share experience and emerging ideas on how to realise the benefits of generating and saving energy at the community level. We are also proposing to set up a Heat Markets Forum, with representatives from Government, the energy industry and consumers, to assess the various types of arrangements for heat supply and to identify areas where we may need to do more to protect consumers or to build market confidence, for example through developing industry codes. Increased supply of district heating to residential consumers is a particular area that the forum will consider.

## Chapter 7 – Combined heat and power and surplus heat

Generating heat and electricity together is more efficient than generating them separately. We also want to see surplus, or waste, heat from power generation or industry put to good use. Chapter 7 explains the Government's strategy for supporting combined heat and power and surplus heat in the future, through incentives for renewable heat and electricity generation and the EU Emissions Trading System. We wish to ensure that existing carbon pricing mechanisms provide sufficient support to combined heat and power. We are open to further proposals to improve this framework.

