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the budget

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in the spotlight

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news bites

### \*\*\* THIS JUST IN \*\*\*

Announced today: a landmark agreement between the government and energy suppliers to help consumers get the best deal on their bills plus at least £540m of the £1.3bn per year ECO home energy efficiency programme will be targeted at helping the poorest.

[Read the full details, including the Deputy PM's speech here.](#)

## Welcome

Welcome to the fourth edition of the DECC Review.

This issue covers the launch of the new National Heat Map and accompanying Heat Strategy. We also take a look at how the Budget, announced last month, supports the work of DECC.

Our Director of Strategy, Ravi Gurumurthy, explores the cost of renewable energy and decarbonisation in his recent blog.

The Hadley Centre Climate Programme is 'in the spotlight' this month and you'll also find our usual roundup of ministerial visits and media news bites.

As always we welcome your comments and suggestions so please [contact us](#).

## Putting Low Carbon Heating on the Map

*DECC launches a new National Heat Map and a strategic framework for low carbon heating*

DECC is celebrating the launch of a new, state of the art **National Heat Map** and **Heat Strategy**.

The strategy sets out how we supply and use heat today and describes how the heat system will need to evolve over time, identifying the substantial changes required across our economy and the role of government.

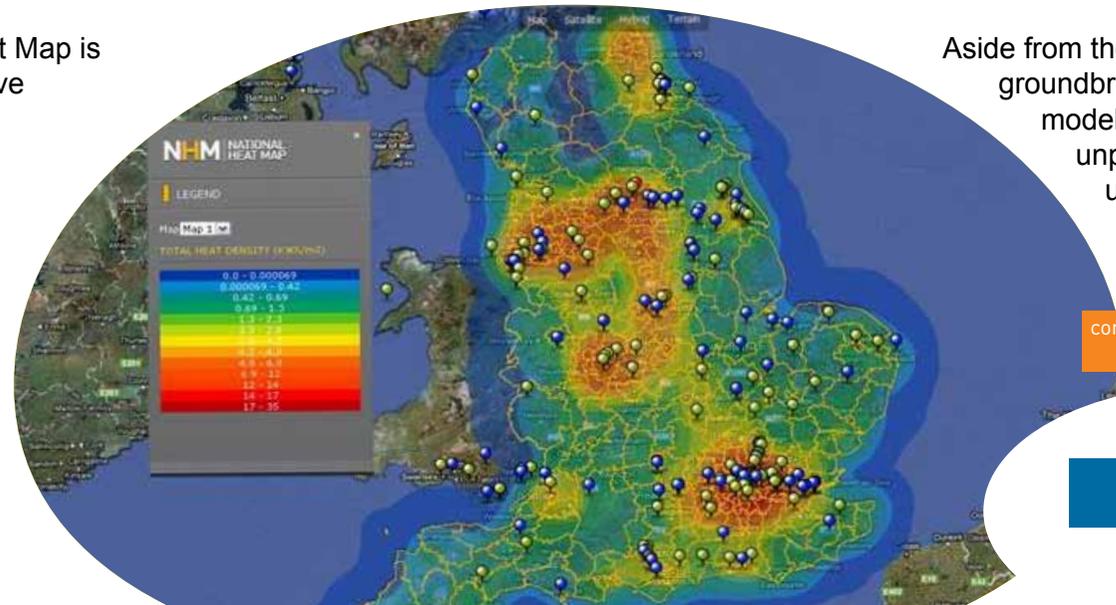
The National Heat Map is a unique interactive tool that provides local authorities, communities, private sector developers and heat suppliers with a reliable source of information.

The map is equipped with

a range of tools to help developers and planners identify priority areas for low carbon heat projects. Local authorities will be able to use the map as the starting point to develop detailed Energy Master Plans, to inform distributed energy policies in their Local Development Frameworks (LDFs) and climate change strategies. Developers can use the map

to help them meet local distributed energy needs. It is the only map covering the whole of England that allows planners to zoom down to the level of individual buildings and view their heat demand, and shows the demand of wider areas with the same accuracy. This will underpin feasibility studies by enhancing precision whilst reducing costs.

Aside from the groundbreaking model and unparalleled data underpinning the map, there are a



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forward

# The Budget 2012

*Good news for energy and climate change*



Read the full details of the Budget 2012  
Report [here](#).

Last month the Chancellor made his Budget Statement 2012. It set out the Government's plans for the economy in the year ahead and demonstrated the Coalition's ongoing commitment to encouraging development of the UK's energy infrastructure.

The Chancellor was clear in his statement that renewable energy would play a crucial part in Britain's energy mix, while acknowledging the costs that household and business consumers were being asked to bear.

He confirmed the Government's intention to seek major savings in the administrative cost of the Carbon Reduction Commitment. In the event that these savings are not found, the government will bring forward proposals in the autumn to replace the revenues with an alternative environmental tax.

Seeking to encourage investment in the UK's energy sector, including renewables, the Chancellor confirmed that the Green Investment

Bank would be 'open for business' in April. He also announced the level of a Carbon Price Floor into the tax system and exemptions for Combined Heat and Power plants from carbon price support rates on fuels used for heat.

Recognising that gas-fired electricity generation will continue to play a major role in UK energy supplies for the next decade and beyond, the Chancellor also announced that the Secretary of State, Edward Davey, would set out a new gas generation strategy in the Autumn to secure investment.

A major package of tax changes will also be introduced to ensure extraction of the greatest possible amount of oil and gas from our reserves in the North Sea. These will include new allowances for large and deep field developments and a new contractual approach that would end uncertainty over decommissioning tax relief which has hung over industry.

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number of benefits that come with heat mapping at a national level such as:

- Common standards: individual local maps are developed by different people in different ways, using different data sources and methodologies. The National Heat Map is drawn up to common standards and open to everyone to help identify the best opportunities for low-carbon heat across the country.
- Cross-boundary development: local heat maps stop at the boundaries of the authority that commissioned it. Having a common map helps join everything together across boundaries, so a large heat demand in one borough could be linked easily to an abundant supply of heat in a neighbouring area, for example.
- Economies of scale: The National Heat Map covers the whole of England at a substantially reduced cost.

To find out more email the team at [national.heat.map@decc.gsi.gov.uk](mailto:national.heat.map@decc.gsi.gov.uk)





## Future consumers would not thank us for looking for an energy policy in the bargain basement *By DECC's Director of Strategy, Ravi Gurumurthy*

Nothing generates column inches these days like discussion about the costs of our future energy mix. And rightly so. Our ageing fleet of power stations, our increasing reliance on imported fossil fuels and the need for us to reduce carbon emissions all add up to one thing: we need investment.

Here at DECC we've developed an open-source, peer-reviewed online tool, [the 2050 Calculator](#), to help us understand the uncertainties, to expose the trade offs and to make sure our policies today are not regretted decades hence [The Calculator now includes costs](#) and takes a whole-economy approach to assessing the varying plausible scenarios for keeping the lights on and meeting our statutory target of cutting emissions by 80% by 2050.

No one scenario is assured but, by way of illustration, our most cost-effective scenario (the so-called Markal pathway) foresees a future that is marginally cheaper than doing nothing. Crucially, Markal would result in a balanced electricity generation mix in 2050 with 33GW of nuclear, 45GW of renewables and 29GW of fossil fuels with CCS. Contrast this to AF Consult's new report 'Powerful targets: Exploring the relative cost of meeting decarbonisation and renewables targets in the British power sector', which claims renewables are a costly addition to our future energy mix. But the report's conclusions are undermined by its assumptions, which skirt over four crucially important factors.

First, electricity demand is set to increase. All of our main scenarios for 2050 tell us that we need to plan to meet an increase in demand of between a third and two thirds, as transport and heating shift onto the electricity grid. AF Consult

massively underestimates this and as a consequence risk us not having enough electricity to power the country and failing to meet our carbon targets.

Second, diversity of energy technology is crucial. As no one can yet say for sure what the relative costs will be decades hence, the Government's approach is not to be captured by any technology lobby. Each has its place in a technology race between renewables, nuclear, and clean fossil fuels in which the lowest cost technology wins the largest market share and keeps bills down for consumers. AF Consult appear to be trying to second-guess the unknowable, and as a result put all of our eggs into just two energy technologies. The build rate using just CCS and nuclear would be unrealistic, risky and costly.

Third, the costs of renewables are already being driven down. Our renewables target is an industrial policy aimed at accelerating

reductions in the costs of renewable generation. Onshore wind has already come down in price, hence why we have proposed to cut the subsidy it gets by 10%, and the offshore wind industry is working towards reducing costs to £100/MWh by 2020. Add to that the wider economic benefits of investment and jobs in advanced green industries that will have a global market.

Lastly, and perhaps most importantly, gas prices are uncertain and volatile. In contrast to renewables, the signs are that gas prices will be higher in future. Even with shale gas there is no certainty that supplies or prices would filter through to the UK. The IEA for instance foresees gas prices rising to 2030 as demand pressures outweigh supply boosts. Today's consumers are already bearing the brunt of gas price volatility. The Arab Spring and Fukushima last year contributed to driving up gas prices which pushed up the average dual fuel bill by £175,

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eclipsing the £20 a year current cost of subsidising renewables. While gas will still play a role in the future, home grown renewables will help insulate our economy and consumers from depending excessively on gas imports and the volatility that accompanies that.

Consumers would not be well served by an energy strategy based on short-sighted analysis that pins all its hopes on just two energy technologies and then crosses its fingers that gas prices come good. If it were, we'd not keep the lights on and meet our carbon targets, and the consumer would certainly be worse off. All credible analysis agrees that renewable energy has a central role to play in the low carbon technology race under way.

The consumer is at the heart of the decisions we're making today to design tomorrow's energy system, but the bargain basement is not the place to look for a responsible long term energy strategy.

You can read other [DECC blogs](#) on our website.

# Hills Fuel Poverty Review

## *Changing the way we tackle fuel poverty*

On 15 March, Professor John Hills' independent report was published advising the government how it could best tackle the problem of fuel poverty.

Professor Hills of the London School of Economics focused his research on the definition of fuel poverty, targets, and the effectiveness of different policy interventions.

The latest official fuel poverty figures show 4 million households in England in fuel poverty, compared to 1.2 million in 2004.

Conclusions of the report included:

- That fuel poverty is currently measured in a way that is both flawed and unhelpful.
- A proposal for a new way to define fuel poverty, separating the extent of the issue (the number of people affected) from its depth (how badly people are affected).
- How the impact of government policies can be assessed against a new proposed definition,

showing the positive impact current policies are having on tackling fuel poverty.

Secretary of State for Energy and Climate Change, Edward Davey, said: "Fuel poverty is a serious national problem and this government remains committed to doing all it can to tackle it and make sure that the help available reaches those who need it most.

"We were right to commission this independent review because we want to make our policies as effective as possible, and improving fuel poverty measurement is a key part of this. I am grateful to Professor Hills and his team for the quality of their work, we will now study the report in detail ahead of consulting on an alternative definition for fuel poverty in the summer."

Government is already tackling fuel poverty through a range of different schemes. Assistance with heating and insulation measures is currently



provided through policies like Warm Front and the Carbon Emissions Reduction Target helping keep homes warmer and cosier throughout the year. There is also direct support with energy bills for low income and vulnerable households through the Warm Home Discount Scheme.

In the future the Green Deal Energy Company Obligation will be one of the key policies in this area.

[Read the full report here.](#)



# Hadley Centre

*How the Met Office translates climate science into policy advice*

The Hadley Centre was set up to support scientific research into climate change. Building on over 30 years previous climatological research. It has established itself as a world leading centre for climate research and modelling. Here's just a taste of their work.

**The Hadley Centre Climate Programme (HCCP)**, which comprises a large part of the work undertaken at the Hadley Centre provides up-to-date, robust and traceable scientific advice to government on climate variability and climate change. It is funded by DECC and the Department for Environment, Food and Rural Affairs (Defra).

The science will help to inform key policy areas with a focus on climate monitoring and attribution, dangerous climate change (its potential impacts, vulnerabilities and risks), and evidence to inform UK and international policy for renewable energy, mitigation and adaptation. To this end, the scientific research is organised around a set of scientific themes, covering climate observations, understanding climate processes and extremes,

climate model development and evaluation, and climate prediction.

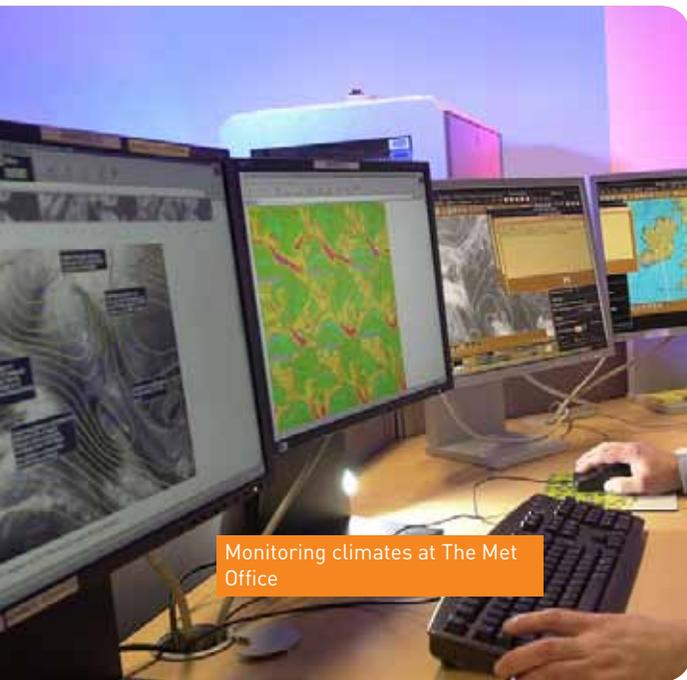
Recently, the Hadley Centre was commissioned by DECC to compile a series of reports designed to provide scientifically robust and impartial information on the physical impacts of climate change for more than 20 countries. These were presented as supporting material at the UK government's international negotiations at the United Nations Framework Convention on Climate Change COP17 meeting in Durban, in December 2011. The reports drew heavily on the modelling results and analyses from the 'Avoiding Dangerous Climate Change Programme', a research consortium funded by DECC and Defra, which was led by the Hadley Centre.

The Hadley Centre has also worked with DECC to understand their requirements for UK and European wind speed information in the context of defining UK energy policy. This work, conducted through a series of

Find out more about the Hadley Centre - a world leading centre for climate research and modelling on [the Met Office website](#).

interviews, has highlighted the need for further research on understanding natural wind speed variability and its relationship with energy demand. Research is currently focussing on understanding the frequency of low wind periods in the historical UK record. Extended low wind periods during winter can produce high energy demand and low energy production potential. Through this work, the Hadley Centre aims to help DECC establish how this problematic weather pattern can be managed through energy policy and planning.

Collaboration and partnerships with other research institutions, nationally and internationally, are seen as key to the success of the Hadley Centre Climate Programme. On the international stage, it continues to play a key role in the Intergovernmental Panel for Climate Change (IPCC) through its climate model predictions and provision of lead authors for the preparation of the Fifth Assessment Report, due for publication in 2013/2014.



Monitoring climates at The Met Office



## Climate kids grill Cabinet Ministers



As part of Climate Week (12-18 March 2012), Energy and Climate Change Secretary, Edward Davey, and Environment Secretary, Caroline Spelman, met five winners aged between 8 and 12 of the National Geographic Kids magazine climate change competition, and listened to what they had to say about climate change and what they want the world to look like in 2050.

The National Geographic Kids magazine competition challenged readers to submit their ideas and designs to help tackle climate change. Solar panels on the roof of Parliament, bicycle-powered television sets, and streetlamps with mini-wind turbines were just three of the ideas put to ministers by the young winners.

## Greg Barker's South Wales Green Deal

Greg Barker was in South Wales on Wednesday 28 March to see great examples of energy efficiency. He began his visit at Rockwool, the world's largest producer of stone wool insulation and the second largest insulation producer globally. Rockwool has been working with DECC for over a year, having led a project team of volunteers who provided expert input into Green Deal policy development, on behalf of the Construction Products



## Charles Hendry on North England clean energy visit

Last month, Charles Hendry visited Nottingham University's Carbon Capture and Storage (CCS) research unit, the site of the future Blackburn Meadows biomass plant and the new life-expired wood energy plant in Chilton, County Durham.

The Nottingham Centre for Carbon Capture and Storage (NCCCS) is a joint venture between the British Geological Survey's CO<sub>2</sub> storage centre of excellence and the University of Nottingham's CCS group. The Minister was given a tour of the labs and met researchers and PHD students working on CCS. He stressed that the Government is fully committed to CCS and that that £1bn in funding remains available for this new process. He also said he was keen to forge even stronger links between the academic communities and industry on CCS to enable cost-competitive deployment of CCS in the 2020s.



Association. The Minister was given a tour of the factory, allowing him to see how insulating materials are being developed and manufactured. The tour was also an opportunity to discuss with the team how they handle the complexities of listed buildings, their work with English Heritage, but also how they interact with NGOs, especially BTCV on training schemes.

The Minister next took part in a CBI roundtable discussion hosted by British Gas. Mr Barker stressed that SMEs will play a key role in delivering the Green Deal. There are a number of potential business models for SMEs in the Green Deal, either as advisors or as providers.

[Find out more on the our website.](#)





### Energy Stats

New data for the fourth quarter of 2011 (and thus provisional annual data for 2011) was published by DECC in Energy Trends and Quarterly Energy Prices on 29 March.



### World-leading energy firm announces investment in new turbine manufacturing facility

Wind turbine manufacturer Gamesa has signed a Memorandum of Understanding with Forth Ports, Leith, Scotland to build a major manufacturing facility which could be worth up to €150 million of investment (around £125 million) and is expected to support over 800 direct jobs.



### Carbon Capture and Storage (CCS) competition launched as government sets out long term plans

The Government has published its first UK CCS Roadmap setting out the steps that it is taking to develop a new world-leading CCS industry in the 2020s, including launch of a new 'CCS Commercialisation Programme'.



### £10 million of new money to help Renewable Heat Premium Payment (RHPP) go further

A second phase of the Renewable Heat Premium Payment (RHPP) scheme will provide new money including an £8 million competition for grants that will encourage community groups to install renewable heating.

Read more news stories on the [DECC Website](#)



# DECC REVIEW

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## Consultations

The Renewable Heat Incentive: consultation on interim cost control  
Close Date: 23-04-2012

Consultation on Comprehensive Review Phase 2B: Tariffs for non-PV technologies and scheme administration issues  
Close Date: 26-04-2012

Smart Meters Implementation Programme consultations  
Close Date: 01-06-2012

See our other consultations on the [DECC Website](#).

Let us know your feedback , views  
and opinions

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