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# PARLIAMENTARY BRIEFING

## Energy Bill - Second Reading Briefing

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4 May 2011

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### 1. Executive summary

- WWF welcomes the Bill as it has the potential to help facilitate the UK's transition to a low carbon economy whilst providing new jobs, improved energy security and reduced fuel poverty.
- WWF believes the legislation should go further on two key areas: the Green Deal should be strengthened by setting a minimum level of ambition and an enabling power to establish an emissions performance standard (EPS) for the power sector should be introduced.
- WWF and numerous other businesses, environmental and social organisations are calling on the Government to set a minimum level of ambition for its energy efficiency programme and the Green Deal. This is necessary to ensure the UK meets its carbon budgets and to provide businesses with certainty so they have the confidence to invest and build the necessary supply chains.
- The Bill also provides an excellent opportunity to provide investment certainty in the power sector by introducing an enabling power which allows the Secretary of State to introduce an EPS and specifies that this must happen within a certain time period. The Government has promised to introduce an EPS but another Energy Bill is not expected until 2012 and including enabling powers in this legislation would reduce the delay.

### 2. Introduction

WWF welcomes the Energy Bill as it has the potential to help put the UK on track towards becoming a low carbon economy. The legislation represents an important opportunity to put in place the necessary measures to reduce the UK's emissions whilst benefiting the economy. However, in order to ensure the Bill realises its potential WWF would urge the Government to go further.

Two key recommendations by the Committee on Climate Change (CCC) set the context in which the Bill should be viewed. Firstly, the CCC has recommended that the UK should move towards



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an ‘intended’ emissions reduction target of 42% by 2020. It has also identified the need to almost completely decarbonise the power sector by 2030<sup>1</sup>:

*“The path to meeting the UK’s 2050 target to reduce emissions by 80% requires that the power sector is largely decarbonised in the period to 2030.”* In the fourth carbon budget report published in December, the CCC recommended in particular that the average carbon intensity of the UK power sector should be reduced to around 50gCO<sub>2</sub>/Kwh by 2030<sup>2</sup>.

Reducing demand for energy through the rapid improvement of the energy efficiency of our homes and non-domestic building stock and the setting of a clear pathway to decarbonise the electricity sector are key ways in which the Bill can contribute towards these recommendations.

### 3. The Green Deal and the need for a minimum level of ambition

WWF, in association with numerous businesses, trade associations, NGOs and charities, is calling for the Government to set a minimum level of ambition for its energy efficiency programme including the Green Deal. A joint statement from the organisations involved accompanies this briefing. WWF believes a minimum ambition should be set because:

- a) The housing sector is ideally placed to help the UK achieve early reductions in its emissions. Not achieving progress in this sector undermines the UK’s ability to meet its legally binding climate targets;
- b) Business needs more clarity and certainty from Government on the scale of the energy efficiency programme so that it has the confidence to invest; and
- c) All 26 million existing homes will need to undergo energy saving improvements to make them fit for a low-carbon 2050. This requires an ambitious package of energy saving improvements delivered in a co-ordinated fashion.

#### a) Environmental arguments for a minimum ambition

Improving the energy efficiency of the UK’s housing stock has multiple positive benefits such as increased energy security, reduced fuel bills, fewer people living in fuel poverty and the creation of new jobs. It is also generally the sector in which emissions can be reduced in the cheapest and quickest way.

The Climate Change Act 2008 commits the UK to reducing its emissions by at least 80% by 2050 and the CCC has recommended that the 2020 target should ultimately be strengthened to 42%. Just as the CCC has recommended that the power sector should be largely decarbonised by 2030 (based on an analysis of available technology and the cost-effectiveness of this approach) it has also set out a clear role for the housing sector.

Domestic homes are responsible for 23% of the UK’s greenhouse gas (GHG) emissions (including their use of heat and electricity) and commercial buildings account for a further 12%<sup>3</sup>. The CCC has stated that we need to save 17 MtCO<sub>2</sub> from domestic homes and 9 MtCO<sub>2</sub> from the non-residential sector through energy efficiency measures by 2020<sup>4</sup>.

The Government has an aspiration of 14 million homes benefiting from the Green Deal by 2020<sup>5</sup>. Starting today, that represents a rate of 1.5 million homes per year, which equates to

<sup>1</sup> Letter to Rt Hon Chris Huhne, Secretary of State for Energy and Climate Change, from Lord Turner, Chair of the Committee on Climate Change. ‘CCC advice on the approach to investment in fossil fuel power generation’, 17 June 2010.

<sup>2</sup> Committee on Climate Change - The Fourth Carbon Budget, Reducing emissions through the 2020s, December 2010. [http://downloads.theccc.org.uk.s3.amazonaws.com/4th%20Budget/CCC\\_4th-Budget\\_interactive.pdf](http://downloads.theccc.org.uk.s3.amazonaws.com/4th%20Budget/CCC_4th-Budget_interactive.pdf) p13

<sup>3</sup> Ibid, p196

<sup>4</sup> [http://downloads.theccc.org.uk.s3.amazonaws.com/4th%20Budget/4th-Budget\\_Chapter5.pdf](http://downloads.theccc.org.uk.s3.amazonaws.com/4th%20Budget/4th-Budget_Chapter5.pdf) p199

<sup>5</sup> Greg Barker MP, DECC Minister of State, Hansard, 24 March 2011, Col: 1077

almost 30,000 homes per week or put another way nearly 4,274 homes every day<sup>6</sup>. As the Green Deal will not be up and running until at least mid-2012 this will require an even greater rate of delivery.

To meet the CCC's suggested figure, though, it is the depth of the retrofits and the level of carbon and energy savings that is more important than the actual number of homes taking up the Green Deal and this should be the Government's primary focus. As previously mentioned, energy efficiency is generally considered the fastest and most cost-effective way to reduce emissions and if the UK is off track in improving the housing stock then other sectors will have to work harder to ensure the UK meets its targets.

The Government should, therefore, set out a minimum level of ambition for its energy efficiency programme and the Green Deal to help achieve the UK's climate targets and so it is clear what contribution homes and non-domestic buildings should make.

### **b) Business arguments – the need for clarity and certainty**

If businesses are to participate in the Green Deal from 2012 then they need to be making decisions on investment, supply chains, delivery mechanisms, and customer propositions now. Clarity on the scale of ambition for overall energy savings, the necessary rate of uptake and key milestones (ie. aligned to the carbon budgets) are essential for business to feel confident to invest to deliver the Green Deal. Businesses, for example, will need to expand their premises, equipment and workforce and their supply chains all of which will have implications for their capital expenditure over the next two years and so will require certainty from Government on what is expected to be delivered. Business, therefore, needs assurances that the Green Deal is a programme with a defined aim, certainty and longevity, and that the Government will assist in driving demand in the early years to correct persistent market failures. Without a clear framework that leads to high levels of demand from householders the market will not respond.

For this reason many businesses and trade representatives (including B&Q, M&S, Asda, the Federation of Master Builders and the Federation of Small Businesses) are asking for further clarity on the ambition of the Green Deal and have signed up to the joint statement accompanying this briefing which calls for a minimum level of ambition to be set.

#### Creating a market for the Green Deal

A key concern is the uncertainty over the size of the market for the Green Deal as it is currently unclear how popular the Green Deal will prove to be. Indeed, the Government's design of the scheme and the incentives it provides will be crucial to its success.

On their own, potential carbon and cost savings from the Green Deal will not be enough of a motivation for householders and additional incentives to encourage them to take up the offer will be required. This mainly falls outside the legislation and thus demands an overarching strategy from Government.

With the Green Deal finance and a new energy company obligation (ECO) being the two proposed financial measures to deliver improvements it is important they are established at a sufficient scale and designed to be attractive to householders.

Research into public appetite for the Green Deal undertaken by WWF with the Great British Refurb campaign suggests that a package of incentives will be needed to make the Green Deal sufficiently attractive to the majority of households. In a survey of over 2,300 people, the level of interest rates charged for taking up the scheme was found to be a key issue. At 2% per annum 33% of homeowners said they were 'very' or 'fairly' likely to take up the Green Deal but this

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<sup>6</sup> Federation of Master Builders, press release, March 2011, <http://www.fmb.org.uk/news/press-releases/2011/march/energy-bill-needs-to-be-more-ambitious-says-fmb-and-wwf310311/>

figure fell to 7% when an annual interest rate of 6% was deemed likely<sup>7</sup>. With interest rates for the Green Deal expected to be above 6% it is evident that the Government must take steps particularly in the early years, such as the provision of cheap finance for the Green Deal from the Green Investment Bank, to drive sufficient take up<sup>8</sup>.

Another example is of fiscal incentives. A powerful driver of take-up would be the offer of council tax rebates or changes to stamp duty linked to the Green Deal. The survey found that almost half (49%) would take up the Green Deal if a one-off council tax rebate of £500 was part of the package<sup>9</sup>.

If the Government is committed to the success of the Green Deal then it must include supporting measures that fall outside of legislation, through taxation and financial incentives. This needs to be an integral part of a strategy to ensure delivery of a minimum level of energy savings and carbon reduction across the UK.

### **c) Making homes fit for 2050**

To reduce emissions by 80% by 2050 it is clear that the UK's housing stock will have to be almost completely decarbonised by this point, especially as it will need to compensate for the limited potential in sectors such as agriculture and aviation. All our homes by 2050, therefore, need to be highly energy efficient and heated and powered by sustainable energy.

The Secretary of State for Energy and Climate Change, Rt Hon Chris Huhne MP, recognised the importance of an ambitious retrofit for each home when he said the Green Deal would be a *“once-and-for-all refit that will make every home in Britain ready for a low-carbon future. No more half-measures going off at half-cock.”*<sup>10</sup>

Each home is different but most will need a wide package of measures installed. It is important, therefore, that the Green Deal offers and incentivises the full range of energy saving measures. Some measures such as windows and under floor insulation are more expensive than loft and cavity wall insulation but all are needed to ensure homes can reduce their energy demand sufficiently to meet our 2050 carbon reduction targets.

WWF believes it is important to do as much work on a home as possible at the same time to minimise disturbance and to ensure the package works as a whole. Doing only the easy and cheaper options first (such as loft and cavity walls) ultimately means that it is necessary to the return to the home later to do the additional more difficult and costly measures. It makes more long-term economic sense to do as many measures together as possible to deliver a cost-optimal whole house package.

WWF also believes that the measures offered within the framework of the Green Deal should extend beyond just insulation measures to renewable energy technologies, smart meters and water efficiency to maximise energy and carbon savings and the opportunity offered by the scheme. This would also join up delivery of different Government priorities and reduce marketing and delivery costs across the programmes. This does not necessarily mean they should be financed through the Green Deal financing mechanism in the Bill, but through additional channels of finance that can work alongside and be incentivised for delivery with the Green Deal.

<sup>7</sup> Great British Refurb, Green Deal – public appetite market research, 21 September 2010, <http://www.greatbritishrefurb.co.uk/images/pdfs/gbr-greendealmarketresearch.pdf>

<sup>8</sup> Joint representation to Chancellor of the Exchequer – The Green Deal in a Growth Budget, 15 February 2011 - [http://assets.wwf.org.uk/downloads/budget\\_green\\_deal.pdf](http://assets.wwf.org.uk/downloads/budget_green_deal.pdf)

<sup>9</sup> Great British Refurb, Green Deal – public appetite market research, 21 September 2010, <http://www.greatbritishrefurb.co.uk/images/pdfs/gbr-greendealmarketresearch.pdf>

<sup>10</sup> Speech to party conference ‘Green Deal will be a revolution’ 21 September 2010 [http://www.libdems.org.uk/latest\\_news\\_detail.aspx?title=Chris\\_Huhne:\\_Green\\_Deal\\_will\\_be\\_a\\_revolution\\_&pPK=88186f4a-e1d5-4b34-9fc9-83cff3bf195d](http://www.libdems.org.uk/latest_news_detail.aspx?title=Chris_Huhne:_Green_Deal_will_be_a_revolution_&pPK=88186f4a-e1d5-4b34-9fc9-83cff3bf195d)

The Government, for example, has introduced feed-in-tariffs to encourage the uptake of micro-renewables as well as a renewable heat incentive (RHI). It has also committed to rolling out smart meters to every home. WWF believes the Green Deal programme creates the opportunity to offer householders a coherent package of measures for their whole house all at once and which minimises disturbance, marketing and installation costs whilst maximising take-up and environmental improvements. In practice, the Green Deal could offer a householder numerous measures with some of these paid for under the Green Deal finance mechanism while others will be paid for by other sources (i.e. the energy companies pay for the smart meters and the RHI covers a solar thermal panel) but they are all installed as part of the same process.

It is, therefore, important that all the energy saving and renewable energy measures required to make the home fit for 2050 are eligible for the Green Deal and the Government's associated policy, finance and incentive framework makes them viable to be included in a retrofit. Setting a minimum level of ambition would help shape such a co-ordinated approach.

### The need for water efficiency to be included

Just as the allowed energy saving measures should be flexible and the Green Deal should not preclude options at a later date, WWF believes this principle should extend to water efficiency. WWF is encouraged that the Government is investigating how this could be integrated into the Green Deal programme.

The Green Deal offers an excellent opportunity to improve the water efficiency of our homes in addition to saving energy. There are clear carbon-saving links between the two. There is also a very real need to reduce our water usage to not only tackle problems of over-abstraction but to adapt to the expected impacts of climate change on water availability. The Government has a water consumption target of 130 litres per person per day in England (compared to average use of 148 litres today) and water efficiency retrofits have a large part to play in meeting this target.

WWF believes there is a clear case for including hot water saving devices within the approved energy saving measures. A quarter of household CO<sub>2</sub> emissions are associated with using hot water (for cooking, washing and cleaning)<sup>11</sup>; heating water is the second biggest consumer of energy in the home after heating space; and it accounts for 5% of UK greenhouse gas emissions<sup>12</sup>. Pumping and treating water also uses considerable energy – the water industry already accounts for 1% of UK greenhouse gas emissions<sup>13</sup>.

Hot water efficiency measures (showers, hot taps) save water, energy and money. Products such as shower restrictors are already CERT approved due to carbon saving (approximately 1 tonne over product lifetime). For example, converting a high flow shower with a retrofitted aerated shower device produces annual household savings of: 43m<sup>3</sup> water, 345 kg CO<sub>2</sub> and £68 on energy bills<sup>14</sup>. The capital cost of such devices is between £5-10.

Measures that save cold water (toilets, cold taps) can also help reduce water use, save customers money and save emissions. For example, retrofitting a device that converts a single flush toilet to a dual flush produces annual household savings of: 24m<sup>3</sup> water and 26 kg CO<sub>2</sub> and £58 on water bills (if metered); such a device costs £25.<sup>15</sup>

For cold water measures, WWF believes it is important that the Bill does not preclude these measures from being delivered by the Green Deal, even if they are not funded through the Green Deal pay-as-you-save mechanism. The opportunities to engage people about their homes to make improvements are very rare and the Green Deal could maximise its benefits by allowing other installations to be made, if funding for including these measures is found through other means. The Government, for example, is currently drafting a Water White Paper looking at how

<sup>11</sup> Environment Agency and Energy Savings Trust. 2009. *Quantifying carbon emissions from water use in the home*.

<sup>12</sup> Defra, 2008. *Future Water*.

<sup>13</sup> Defra, 2008. *Future Water*.

<sup>14</sup> Environment Agency and Energy Savings Trust. 2009. *Quantifying carbon emissions from water use in the home*. Assumes cost water £2.30 per cubic meter.

<sup>15</sup> Environment Agency and Energy Savings Trust. 2009. *Quantifying carbon emissions from water use in the home*.

to encourage water companies to deliver more water efficiency. This could include a mechanism that encourages and enables water companies to fund cold water efficiency measures, which would be delivered, free to customers, as part of the Green Deal package.

Therefore, hot water measures make sense to be included in the approved energy saving measures for the Green Deal finance and cold water measures should not be precluded from being delivered alongside the Green Deal.

#### 4. Emissions Performance Standard (EPS)

An issue which doesn't feature in the Bill but which WWF believes should be added is the power to introduce an Emissions Performance Standard (EPS) for the power sector. An EPS will be necessary to provide a clear timetable towards the decarbonisation of the power sector by 2030 and to introduce clear physical certainty as to where new investment needs to be directed in the power sector. By not having enabling powers in the Bill, there is a real risk that an EPS will not be introduced by the Government until 2014.

As mentioned previously, the CCC has recommended that the power sector should be nearly decarbonised by 2030 in order to ensure that the UK is on track to meet its emission reduction targets under the Climate Change Act 2008. The carbon price alone is expected to be too weak to incentivise sufficient investment in low carbon technology and its effectiveness as a driver for decarbonisation depends on unpredictable future fuel prices. The CCC has recommended additional measures to achieve the required level of decarbonisation.

In particular, the CCC stated that one important new measure would be the introduction of an EPS for new power plants on the system, which would encourage the deployment of renewable energy capacity and require fossil-fuel plants to fit carbon capture and storage (CCS) technology<sup>16</sup>:

*“Reform of the current arrangements is required to provide more confidence to investors in low-carbon technologies. New arrangements could be strengthened through the introduction of an Emissions Performance Standard (EPS) for coal fired generation as proposed by the Government and, in parallel, an EPS for new gas generation.”*

The House of Commons Energy and Climate Change committee published a report on 2 December, also supporting the introduction of an EPS. It concurred that the current measures in place would not lead to the decarbonisation of the power sector by 2030 and that an EPS could help play an important role in preventing the 'lock-in' to high carbon power plants.

The Government has promised to introduce an EPS. The Coalition Agreement commits to this and the Government has recently closed a consultation on electricity market reform (EMR) which looked into the detail of the issue.

WWF understands that enabling powers for an EPS will need to be introduced in primary legislation prior to the detail of an EPS being set out in secondary legislation. Given that a second Energy Bill is unlikely to be introduced until mid-2012, an EPS might not be in place until 2014. This will represent a significant delay in giving guidance to investors in the energy sector as to what is required by 2020 and 2030, adding to the existing uncertainty in the sector. The introduction of enabling powers for an EPS in the current Energy Bill, which would allow for the implementation of an EPS in secondary legislation shortly after the Government publishes its conclusion of the EMR consultations, is therefore very important to improve investment certainty in the power sector as soon as possible.

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<sup>16</sup> Building a low-carbon economy: the UK's innovation challenge, Committee on Climate Change, July 2010, [http://hmccc.s3.amazonaws.com/CCC\\_Low-Carbon\\_web\\_August%202010.pdf](http://hmccc.s3.amazonaws.com/CCC_Low-Carbon_web_August%202010.pdf), page 24.

WWF, therefore, is calling for an enabling amendment to be added to the Bill which would empower the Secretary of State to set an EPS and require this to happen within a certain timeframe. In practice, this would allow the Government to consider its findings from the recent EMR consultation and then be able to implement them in full (including secondary legislation) by early 2012.

## 5. Conclusion

WWF believes this Bill provides an enormous opportunity to put in place some of the urgent and necessary measures to facilitate the UK's low carbon transition. Another Energy Bill may not come until mid-2012 meaning that outcomes from that would not be fully implemented until potentially 2014. Strengthening the Green Deal and introducing powers for an EPS would greatly bolster the impact of this legislation, maximising the opportunities it presents to reduce emissions, support energy security and create jobs.

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