



Energy Bill

Bill 7 of 2009-10

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The *Energy Bill* is a Government Bill. It would introduce: a carbon capture and storage incentive to support the construction of up to four UK demonstration projects, to be chosen in a competition; mandatory social price support to lower energy bills (social tariffs) for the most vulnerable, which would replace the current voluntary agreement which expires in 2011. It would also add ensuring security of supply and protecting consumers to the objectives of the regulator, Ofgem; increase the regulator's powers to deal with exploitation of electricity distribution constraints by generators; and increase Ofgem's power to fine companies. It would give the Secretary of State the power to ban cross-subsidy between gas and electricity accounts.

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Summary

The *Energy Bill 2009-10* is a Government Bill sponsored by the Department of Energy and Climate Change (DECC). It follows on from the UK low carbon transition plan,¹ which aims to deliver emissions cuts of 34% from 1990 levels by 2020 and by 80% by 2050, while maintaining security of supply, maximising economic opportunities and protecting vulnerable consumers. The Bill would deliver some of the primary legislation required by the plan.

The Bill aims to move forward the Government's policy on carbon capture and storage (CCS). This is the technique for sequestering carbon dioxide from the emissions of fossil fuel power stations (or other emitters of carbon dioxide such as industrial processes) and storing it, so that it does not enter the atmosphere.

The £9.5 billion levy on suppliers will provide funds to support the construction of up to four commercial-scale demonstration plants on existing or new coal-fired power stations. The demonstration plant will capture the emissions of 300 to 400MW of electricity output, about a third of the output of an average power station. Following representations from energy generators, the Bill makes it clear that funds from the levy will also be available to retro-fit CCS to power stations, if and when the technology has been declared technically and commercially viable. The Government's plans are at risk of being compromised by the fact that only two generating companies, ScottishPower and E.ON, are known to remain in the competition for funds.

The Bill also contains a measure to deal with fuel poverty, powers to enact the commitment to put 'social tariffs' for low-income consumers on a statutory basis. At present social tariffs operate under a voluntary agreement between the suppliers and the Government, overseen by Ofgem.

After considerable controversy, in 2009 Ofgem imposed tougher criteria on what the energy suppliers could call a social tariff and what could therefore count towards their 'social spend': social spend is the money dedicated to helping vulnerable consumers and reducing CO₂ emissions that had been agreed with the Government and is recorded by Ofgem.

The Bill would ensure that the total sum spent on social tariffs will be greater than under the voluntary agreement, which is due to come to an end in 2011.

The Bill aims to change Ofgem's objectives to include "proactively" protecting consumers' interests and ensuring security of energy supply. It would increase the regulator's powers to fine supply companies that breach licence conditions by extending from 12 months to 5 years the time limit within which Ofgem can impose financial penalties. Ofgem would be given powers to tackle market exploitation where companies take advantage of constraints in the electricity transmission grid to charge higher prices. The Bill would also give the Secretary of State powers to prevent cross-subsidy of gas supply from electricity supply.

The basis for UK energy policy for some time has been that competition is the best way to ensure low prices and security of supply. Taken together, the provisions in the Bill would constitute a significant step away from the free market in energy.

The Bill covers the whole of England, Wales and Scotland. In Wales no elements of the Bill are devolved. In Scotland the only element of the Bill which is devolved is the disbursement of the funds for the CCS competition projects.

The Bill will have its Second Reading in the Commons on 7 December 2009.

¹ [UK Low Carbon Transition Plan: National Strategy for Climate and Energy](#), DECC, July 2009

1 Carbon capture and storage (Part 1)

The Bill would introduce a levy on energy suppliers to pay for up to four carbon capture and storage demonstration plants, to be chosen by competition.

1.1 The technology

The technology to reduce the emission of CO₂ from the burning of carbon-based fuels exists. Carbon capture and storage (CCS) involves a 3-step process: capturing the CO₂ from power plants and other industrial sources; transporting the CO₂ (usually via pipelines) to storage points; and storing the CO₂ in geological sites such as depleted oil and gas fields. However, the technologies have not been demonstrated together at a large scale.

There are three different types of carbon dioxide capture systems:

- Post-combustion - CO₂ is separated from flue gas. The most common method is to scrub the flue gas with chemical solvents, which is an established industrial process.
- Pre-combustion - (for use in Integrated Gasification Combined Cycle power stations). This involves reacting fuel with oxygen or air, to produce a gas consisting mainly of carbon monoxide and hydrogen. The carbon monoxide is reacted with steam to produce hydrogen and CO₂, which is separated. The hydrogen is then burnt as the fuel.
- Oxyfuel - Uses high purity oxygen in combustion resulting in high carbon dioxide concentrations in the gas stream and therefore its easier separation.²

The technology can be used on any combustion plant: gas power stations and other industrial plant that emit CO₂ could be fitted with CCS. It is even possible to use the technology simply to remove CO₂ from the air, although this would be one of the more expensive ways to reduce CO₂ levels. More detail on the different types of power station and the CCS technology options is available in a note from the Parliamentary Office of Science and Technology.³

CO₂ emissions from the UK are significant (the UK is ranked 8th in terms of CO₂, with some 2% of world emissions)⁴ but one of the strongest arguments for pushing forward the development of CCS in developed countries is that developing countries such as China and India have large reserves of coal. Observers predict that they are likely to generate electricity using that coal for the foreseeable future. The suggestion is that if CCS can be developed in advanced countries, or in cooperation with them, and then fitted to coal-fired power stations in countries like China and India, world CO₂ emissions have a chance of stabilising. According to supporters, fitting CCS to coal and gas power stations worldwide could cut emissions by 28-50% by 2050.⁵

The science may be relatively straightforward, but not all scientists are convinced that it is feasible. The investment in infrastructure will be huge and the timescale long. Vaclav Smil, a Professor at Manitoba University, has calculated that if 10% of global carbon dioxide

² For further explanation of the chemical processes involved, go to the [Carbon Dioxide Capture](#) web page of the Scottish Centre for Carbon Storage

³ [Clean Coal](#), POST Note 253, December 2005

⁴ [Total Carbon Dioxide Emissions from the Consumption of Energy \(Million Metric Tons\) 2007](#), US Energy Information Administration

⁵ Stuart Hazeldine and Gil Yaron, [Six Thousand Feet Under: Burying the Carbon Problem](#), Policy Exchange, 2008

emissions are to be stored underground it will have to be pumped faster than all the crude oil that is currently pumped out of the ground.⁶

Dr James Hansen, a climate scientist, has said that coal needs to be left in the ground if we are to avoid the worse effects of climate change. There are concerns that CCS and other clean coal technologies are being used as a 'fig-leaf' to enable the construction of coal-fired power plants. Some argue that there are no guarantees that CCS can be made effective in the medium term or that it will be possible to retrofit the technology to power plants.⁷ The Government has responded to these concerns by creating safeguards which it says will ensure CCS is retrofitted in the future.

Although the Committee on Climate Change concluded that CCS was 'almost certain' to play an important role, it:

...cannot be a sufficient solution in itself. It has not yet been demonstrated on large production scale and cost estimates are therefore uncertain. If it requires the construction of pipelines, it may be subject to local opposition and planning delays similar to those that hold up nuclear and wind deployment. And if many countries simultaneously attempted to deploy CCS on a large scale, it would be highly likely to be subject to the similar supply bottlenecks and cost increases to those that have recently been observed in nuclear, wind and solar PV.⁸

1.2 Storage

In June 2009, the European Commission adopted a Directive on the geological storage of carbon dioxide.⁹ The Directive enables CCS by providing a framework to manage environmental risks and remove barriers in existing legislation. It defines the type of site at which storage is allowed, provides a framework for issuing exploration and storage permits, sets certain obligations for the operation, closures and post-closure of storage sites and specifies that third parties must be given access to transport and storage sites.

The United Kingdom has promising sites for the storage of CO₂ underground. The depleted oil and gas fields in the UK continental shelf could, according to one 1996 study, store the whole UK CO₂ output for 40 years.¹⁰ The regulatory framework to enable private sector investment in CCS was set out in the *Energy Act 2008*.

Until recently, the funding debate has focussed largely on power stations and how to get demonstration plants built. This, however, is only part of the problem. The infrastructure necessary for transporting the CO₂ and injecting it under ground is expensive; CCS proposals put forward by the Secretary of State for Energy and Climate Change in April 2009 are for groups of power stations to share transport and storage infrastructure.¹¹ The proposed 'clusters' are mainly on the eastern side of Great Britain, where generation infrastructure is in any case concentrated to take advantage of the prevailing winds. These areas are close to proposed storage sites in the North Sea, although there are further possible storage sites in the Irish Sea.

⁶ 'A 'Bold' Step to Capture an Elusive Gas Falters', *New York Times*, 3 February 2008

⁷ 'Coal fired power stations are death factories. Close them', *Guardian*, 15 February 2009; 'Greenwash: dirty claims on clean coal', *Guardian*, 5 February 2009

⁸ The Committee on Climate Change, *Building a low-carbon economy – the UK's contribution to tackling climate change*, December 2008

⁹ [Directive 2009/31/EC of the European Parliament and of the Council on the geological storage of carbon dioxide](#), OJL 140/114, 5 June 2009

¹⁰ UK Energy Research Centre, [Carbon Capture and Storage](#) webpage [on 3 December 2009]

¹¹ [Towards Carbon Capture and Storage: Government Response to Consultation](#), DECC, April 2009

1.3 The cost of capture

The extra cost of building a power station with CCS is large but estimates as to how large vary. In a report for the Policy Exchange, a think tank, it is estimated that the cost of building a 400MW CCS facility (excluding the generation part of the power station) together with transport and storage facilities would be close to £850 million.¹² Add to that the expense of running the CCS plant and transporting and storing the CO₂, and it is clear that electricity produced in this way will be more expensive.

The Policy Exchange paper provides the following guide to the cost of constructing and using a CCS facility for 10 years:

Estimated costs of one 400MW coal CCS capture

- Capture equipment at the power plant £600 million;
- New build pipeline £200 million;
- New subsea injection facility offshore £50 million
(Or offshore platform modification £100 million);
- Offshore Operation and Monitoring costs £10million/yr for 10 yr = £100 million;
- Operation of capture at power plant £40/ton x 2.0Mton CO₂ x10 yr,
Less EU-ETS price @ £20/ton = £400 million.

2014-2024 TOTAL: £1,450 million¹³

The Policy Exchange report estimates that if all large gas and coal-fired power stations in the UK were fitted with CCS, it would add about £60 to electricity bills per household per year, making CCS-abated electricity about the same price as onshore wind-generated electricity, at present the cheapest renewable source of power. Overall, CCS is expected to add about 25% to the wholesale cost of electricity.¹⁴ The report also estimates that full-scale CCS plant could deliver CO₂ abatement for £30 per tonne. The UK Energy Centre gives an estimate of £20 per tonne.¹⁵

A report for the Global CCS Institute in Australia gave very different estimates for the different technologies. Estimated increased energy production costs (in the USA) were as follows:

- integrated gasification combined cycle, IGCC (39 percent);
- natural gas combined cycle, NGCC, (43 percent);
- oxy-combustion (55 to 64 percent); and

¹² Stuart Hazseldine and Gil Yaron, *Six Thousand Feet Under: Burying the Carbon Problem*, Policy Exchange, 2008

¹³ Stuart Hazseldine and Gil Yaron, *Six Thousand Feet Under: Burying the Carbon Problem*, Policy Exchange, 2008, p23

¹⁴ UK Government estimate, quoted in *Six Thousand Feet Under: Burying the Carbon Problem*, *ibid*, p17

¹⁵ UK Energy Research Centre, *Carbon Capture and Storage* webpage [on 3 December 2009]

- supercritical pulverised coal (PC) technologies (75 to 78 percent).¹⁶

It is interesting to note the difference in cost between different types of technology, with IGCC (pre-combustion) being far cheaper than pulverised coal (post combustion).

The Committee on Climate Change found in its report that the increase in costs from using CCS might be 'modest':

[R]easonable estimates suggest a modest cost penalty. The IEA presents estimates that CCS could add 2-4¢/kWh to new gas and coal-fired generation costs. Estimates for the UK suggest costs of around 2-3p/kWh [The average wholesale electricity price in the year to October 2008 was around 6-7p/kWh, but it is likely to have declined since then, with a falling gas price].¹⁷

When a full-scale demonstration project has been run for some time the cost will become clearer, but the policy depends to a considerable extent on the expectation that costs of running the technology will decline over the early decades of full commercial use, and on the impact of the carbon price under the EU Emissions Trading Scheme.

Estimates of how long it will take to move to full CCS also vary widely, and this will be crucial. ScottishPower has said that full scale CCS at Longannet could be operational by 2014.¹⁸ Other estimates are much less optimistic, with the mid-20s or even 2030 being suggested.

1.4 Existing policy in the UK

A competition was launched in 2007 for government funding for one post-combustion CCS demonstration plant, due to be operational around 2014. It had also been announced that no planning permission would be granted for a new coal power station that was not 'CCS-ready'. A consultation document was issued in 2008,¹⁹ aiming to determine how the UK would comply with the EU Directive on carbon dioxide storage,²⁰ and to clarify the conditions for CCS readiness. In April 2009, the Government's response to the consultation was published, along with draft guidelines for applications for planning permission for new coal fired plant.²¹ The draft guidelines set out conditions for

- Space at the plant
- Technological feasibility of retrofitting
- A suitable storage facility
- Feasible transport to the storage facility
- The ability to obtain hazardous substance consent, if necessary

¹⁶ *Strategic Analysis of the Global Status of Carbon Capture and Storage*, Synthesis report, Global CCS Institute, 29 October 2009, p26. The figures quoted above are for electricity production and do not take into account the extra costs of transport and storage. These, however, are thought to be small in comparison with the cost of capture.

¹⁷ The Committee on Climate Change, *Building a low-carbon economy – the UK's contribution to tackling climate change*, December 2008

¹⁸ 'Carbon capture technology tested', *BBC News online*, 29 May 2009

¹⁹ *Towards Carbon Capture and Storage*, BERR, 30 June 2008

²⁰ *Directive 2009/31/EC of the European Parliament and of the Council on the geological storage of carbon dioxide*, OJL 140/114, 5 June 2009

²¹ *Towards Carbon Capture and Storage: Government Response to Consultation*, DECC, April 2009; *Guidance on Carbon Capture Readiness and Applications under Section 36 of the Electricity Act 1989: A Consultation*, DECC April 2009

It was announced in the 2009 Budget that a funding mechanism would be provided for ‘up to four’ demonstration projects (including the original competition for one plant), using both pre- and post-combustion technology. The funding mechanism could include a financial incentive funded by the electricity suppliers, EU funding and public expenditure. Any funding from electricity suppliers would be estimated to raise electricity bills by some 2% by 2020.²² It was made clear that ‘up to four’ meant from two to four, guaranteeing that at least one more demonstration plant will be built on top of the previous competition for one plant. The Budget also announced £90 million of extra research funding for the companies in the existing competition.²³ Tenders for the extra £90 million were to be issued ‘shortly’. An important element of the new policy is that the development of both pre- and post-combustion technologies will be supported.

A reliable stream of funding for carbon capture and storage was also proposed. A feed-in tariff or a guaranteed price for carbon abated could be applied to CCS, to be dealt with in a consultation document.²⁴

On 23 April 2009, Ed Miliband, the Secretary of State for Energy and Climate Change, announced a new policy for carbon capture and storage on all new coal-fired power stations:

We will propose for consultation a requirement to demonstrate at least 300 MW of net capacity or around 400 MW of gross output as a condition of any consent.

...With the demonstrations in the UK and abroad, we will plan on the basis that CCS will be technically and economically proven by 2020. There will be an independent judge of when the technology is proven and I envisage the Environment Agency playing that role. Every coal-fired power station built from now would have to commit to retrofitting CCS on the whole plant—100 per cent.—within five years of 2020, subject to the technology being ready. Once the technology had been judged as proven, every new coal-fired power station would have to commit to CCS, not just on a portion, but on the whole plant.²⁵

The Secretary of State said that the proposals:

...set us on a decisive low-carbon path, with the UK doing more than any other country to demonstrate and deploy CCS, and they are the most environmentally ambitious coal conditions of any country in the world. They protect security of supply by making possible the only sustainable long-term diversity there is—low-carbon diversity.²⁶

He also mentioned the possibility of a ‘safety net’ in the event that the development of CCS does not proceed as quickly as expected. The danger is that in this situation, majority-unabated coal-generated electricity could continue to be produced after 2025. The emissions from coal power stations with the proposed minimum output subject to CCS could be 50% higher than emissions from unabated gas power stations.

Measures to deal with this situation would also be put out to consultation, with a document due to be released for consultation in summer 2009 to consider at what level any emissions

²² *ENDS Report*, April 2009

²³ *Budget Report 2009*, 22 April 2009, HC 407 2008-09, sections 7.31 to 7.35

²⁴ *Building a low carbon economy: a framework for the development of clean coal*, Policy statement, DECC, April 2009

²⁵ HC Deb 23 April 2009 c382

²⁶ HC Deb 23 April 2009 c384

standard for power stations should be set.²⁷ The document would also deal with the funding stream for CCS coal - the feed-in tariff or the fixed price for carbon abated.²⁸

The *Low Carbon Transition Plan* would set targets for generation from nuclear, gas, CCS coal and renewables for the first time since the 1980s. This targeting strategy could clearly be a significant factor in encouraging power companies to choose to invest in CCS coal.²⁹

The June 2009 consultation and response

On 17 June the consultation paper *A framework for the development of clean coal* was published.³⁰ Some press commentary focussed on the possibility of applying the requirement to fit CCS to existing power stations at some stage,³¹ saying that it would lead to the closure of most of the existing plants. The consultation paper points out that most of the existing coal-fired capacity will close by 2025 in any case.

In November 2009, the response to the consultation was published.³² The document confirmed the outline of the new policy as set out in the consultation paper. However, a number of concerns were raised by respondents. Perhaps the most important of these was the fear that the requirement to retrofit CCS to the full capacity of a power station after the determination of its technical and economic viability presented a significant risk to investors. Some respondents thought the policy should apply to gas as well as coal.

On the question of what would happen if CCS is not deemed feasible, the Government proposes to conduct a rolling review, with contributions from the Environment Agency, of progress with the technology:

The review will consider what additional measures, consistent with and complementary to the EU ETS [Emissions Trading Scheme] and any other market interventions that are in place, are necessary – such as an emissions performance standard by way of a plant level cap.³³

1.5 Entrants to the competition for funding

Official information on the proposals being considered in the competition for Government funding for 'up to' four demonstration plants is not available, for fear of compromising the fairness of the competition. The information that is available has been released by the companies themselves and there may be other proposals that companies involved have not wanted to disclose.

The original competition for one demonstration plant had four bidders: BP Alternative Energy International, E.ON UK, Peel Power and ScottishPower. In November 2008 BP announced that it was withdrawing from the competition, and in December 2008 RWE bought a controlling stake in Peel Power's CCS subsidiary, effectively buying its way into the competition after failing to be chosen with its original bid.

²⁷ CCS equipment big enough to capture a minimum of 300MW abated output is likely to be installed in post-combustion demonstration plant. The Government does, however, expect some of the demonstration plant to use pre-combustion technology. Pre-combustion technology is likely to be installed on a higher proportion of a plant's output, and possibly 100% from the outset

²⁸ DECC web page, [Carbon Capture & Storage \(CCS\)](#)

²⁹ *UK Low Carbon Transition Plan: National Strategy for Climate and Energy*, DECC, July 2009

³⁰ *A framework for the development of clean coal: consultation document*, DECC, June 2009

³¹ See for example the article 'Carbon plan could shut UK's coal-fired stations', *Guardian*, 18 June 2009

³² *A framework for the development of clean coal: Consultation response*, DECC, November 2009

³³ *A framework for the development of clean coal: Consultation response*, p13

E.ON aims to fit a pre-combustion demonstration plant to its proposed new station at Kingsnorth. ScottishPower proposes retro-fitting a post-combustion plant to its existing Longannet station. The RWE consortium plans to build a new power station with CCS demonstration at Tilbury were withdrawn from the competition in November 2009, citing difficulties with the timetable. This left two projects in the competition.

ScottishPower claims that to retrofit a demonstration plant to its existing power station will abate emissions from the start, while building new coal-fired power stations and abating only a proportion of their emissions will lead to an increase in emissions. It also points out that retrofit technology can be applied to some 50,000 existing fossil fuel plants around the world.³⁴ E.ON argues that its proposed new power station at Kingsnorth will be 20% more efficient than existing coal-fired plants.³⁵ It is accepted by the Government that pre-combustion technology should also be developed, since it may turn out to be more efficient, and that this is not possible with a retrofit to an existing power station.

In the separate competition for the €180m allocated to British CCS projects from the European Economic Recovery Plan, the winner was Powerfuel's project at its Hatfield Colliery in Yorkshire.³⁶ The project needs further investment and technological work, but the Powerfuel project has a good chance of being the first demonstration plant to be completed in the United Kingdom.

1.6 Comment on CCS policy

The Environmental Audit Committee (EAC) reported in 2008 that CCS has the potential to contribute significantly to emissions reductions, and could play a decisive role in reducing emissions both domestically and internationally, but that progress on CCS had been disappointingly slow and that the Government's signals to industry needed to be clearer.³⁷

The Government responded to the EAC report in August 2009.³⁸ In the response, attention was drawn to policy developments since the publication of the EAC's report.

Responding in Parliament to the April 2009 announcement, Greg Clark, Conservative energy spokesman, criticised the Government for being too slow in announcing more decisive support for CCS, saying that 'leadership has now passed to China, Germany and the USA'. He also asked:

Will he confirm that the new coal-fired power stations to be developed with CCS technology will be required to achieve an overall emissions performance standard of no more than 500 kg of carbon dioxide per MWh from the outset?³⁹

Mr Clark also expressed concern about the amount of unabated coal-fired generation that would be allowed under the proposed system. The 300MW of net capacity mentioned in the announcement means that about 20 to 25% of the output of an average plant would be subject to CCS. Mr Miliband replied that the 300MW figure was subject to consultation, and that it was considered to be about right given the stage of development that had been reached with the technology. He also implied that an emissions performance standard was desirable, and said that the level at which it might be set would be put out to consultation.

³⁴ ScottishPower press release, [Coal And Climate Change - How Do We Square The Circle?](#), 17 June 2009

³⁵ [Kingsnorth cleaner coal plant](#), E.ON web page [on 3 December 2009]

³⁶ Clean Power Projects website, [Hatfield IGCC](#)

³⁷ Environmental Audit Committee, [Carbon Capture and Storage](#), HC 654 2007-08

³⁸ [Government Response to the House of Commons Environmental Audit Committee Report: Carbon Capture and Storage \(CCS\)](#), Cm7605, August 2009

³⁹ HC Deb 23 Apr 2009 c384

Liberal Democrat spokesman Martin Horwood worried about the possible increase in fuel bills and the effect of that on fuel poverty levels. He went on:

[...] who bears the risk of [CCS] not being ready, the energy companies or the planet?
If CCS is not ready, would a Labour Government close Kingsnorth?⁴⁰

The Green Party opposed the moves, saying that the Government should concentrate effort and funds on renewable energy and conservation measures, claiming that these will deliver savings of enough power to meet demand and far more jobs, more quickly.⁴¹

WWF commented:

- Renewables and energy efficiency should be the focus of policy
- An emissions standard should be applied to all new power stations
- 'CCS readiness' should include all the conditions set out by the Scottish Centre for Carbon Storage⁴²
- Power stations should be forced to close if they do not fit full CCS by 2020⁴³

The Stop Climate Chaos Coalition welcomed the new policy, but warned that unabated coal power stations must be forced to close if CCS cannot be made economic.⁴⁴ It also called for a massive effort to maximise energy efficiency and renewable power. Friends of the Earth made similar points, and called for an emissions standard for power stations that would be gradually tightened.⁴⁵

Greenpeace takes a slightly more critical line than other groups, while broadly welcoming the 'leadership' shown by Ed Miliband. The organisation posed the following questions about the policy:

- Will new coal plants be permitted to operate for a decade while still pumping three-quarters of their emissions into the atmosphere?
- How will the Government ensure that, if CCS technology doesn't work, the UK won't be left with a legacy of new coal plants emitting huge amounts of CO₂ at a time when we must be slashing emissions?
- Will existing coal plants like Drax, which are slated to continue operation into the 2020s, be allowed to continue operating unabated despite their massive emissions?⁴⁶

The policy changes announced on 23 April 2009 focussed on new coal-fired capacity. ScottishPower has called for Government support for the retro-fitting of CCS to the company's Longannet power station on the Firth of Forth, which remains in the competition for a demonstration plant. Retro-fitting would necessarily use post-combustion technology,

⁴⁰ HC Deb 23 April 2009, c388

⁴¹ [No public funding for carbon capture, says Green Party](#), Green Party press notice

⁴² Nils Markusson and Stuart Haszeldine, [How ready is 'capture ready'? - Preparing the UK power sector for carbon capture and storage](#), Scottish Centre for Carbon Storage, May 2008. A broader set of carbon capture readiness conditions was drawn up by the Scottish Centre for Carbon Storage, commissioned by WWF UK, which included conditions for the institutional readiness of an organisation: the expertise to run CCS.

⁴³ WWF press notice, [Evading Capture - is the UK ready for carbon capture and storage?](#), 22 May 2008

⁴⁴ [Reaction to DECC coal announcement](#), Stop Climate Chaos Coalition

⁴⁵ Friends of the Earth press release, [Miliband signals end of unabated coal](#), 23 April 2009

⁴⁶ Greenpeace press release, [Greenpeace hails 'signs of climate leadership' at last](#), 23 April 2009

which may not turn out to be the most efficient, but many existing coal powered stations are scheduled to continue generating for decades and what happens to them is important. On 29 May 2009, it was announced that a 1MW test unit had been installed and was working at Longannet at a cost of £1 million - a first for a working coal power station in the UK.⁴⁷

It has been reported that representatives of industry are nervous about the proposed system in the event that CCS does not prove feasible, with the possible imposition of an emissions performance standard making companies reluctant to invest. The role of the Environment Agency as arbiter was also questioned, with Ofgem suggested as a more suitable alternative.⁴⁸

John Busby, an independent energy analyst, was reported to be critical of the pro-CCS policy. He said that:

CCS will need 50% more coal for the same generation [...] As we import 75% of our coal, the CCS stations would radically decrease our energy security and worsen the balance of payments.⁴⁹

More coal is needed because the capture process consumes a lot of energy. While some other estimates put the loss of efficiency lower than Mr Busby does, it is worth noting the point that most coal used in the UK is imported, so CCS will not necessarily deliver energy security and self-sufficiency.

1.7 Energy Bill 2009-10

As promised in June 2009, the *Energy Bill* would create the framework for a financial mechanism to support CCS demonstration projects.

Provisions in the Bill

Clause 1 would give the Secretary of State the power to provide financial assistance for CCS demonstration projects and for the installation of additional CCS capacity at a later date ('retrofit'). Only those power stations with scheme-supported demonstration plant should receive support for retrofit. Subsections (3) and (4) of the clause would also provide for the disbursement of the financial assistance, either by the Secretary of State or under alternative 'assistance schemes' whereby other bodies may be nominated as administrators or monitors.

Clause 2 would enable an assistance scheme to impose obligations both on the recipient of the financial assistance and on the administrator, and goes on to provide a non-exhaustive list of matters which could be covered by an assistance scheme. These include defining what can be done as part of a CCS project, the level of assistance that can be provided and administrative arrangements of a scheme. The clause would also give the Secretary of State the power to change or revoke a scheme after consultation, and oblige the Secretary of State to lay before Parliament schemes, changes to them and revocations.

Clause 3 would enable the Secretary of State to make, after consultation, regulations about assistance schemes, to cover anything mentioned in **Clause 2** including civil penalties for non-compliance with the conditions of a scheme.

⁴⁷ ScottishPower press release, [UK First At Longannet As ScottishPower Brings Clean Coal Technology One Step Closer To Reality](#), 29 May 2009

⁴⁸ 'CCS: Energy firms seek opt-outs over 2025 carbon capture deadline', *Guardian*, 11 May 2009

⁴⁹ 'Miliband announces new era of clean coal, but who will pay?', *Guardian*, 24 April 2009

Clause 4 would enable regulations to be made, after consultation, for a levy to be raised on electricity supply, allowing different rates to be applied or some types of supplies to be exempt. The clause provides a non-exhaustive list of matters which may be covered by the regulations.

Clause 5 would provide for Ofgem to administer the levy and to administer the assistance schemes, and also for the Secretary of State to make regulations for transferring the function of administrator to another public body, including to himself.

Clauses 6 and 7 set out definitions of terms used in the part of the Bill on CCS.

2 Fuel poverty (social tariffs) (Part 2)

2.1 Background

The voluntary agreement

Since before the inception of the Fuel Poverty Strategy in 2001,⁵⁰ the Government has been encouraging the supply industry to offer lower prices to those on low incomes.⁵¹ As well as agreeing to make energy efficiency grants under the Carbon Emissions Reduction Target (CERT, previously called Energy Efficiency Commitment, or EEC 3), energy supply companies have agreed with the Government to offer 'social tariffs', that is, extra low tariffs for consumers who are vulnerable to fuel poverty. Other social programmes offered by energy suppliers include rebates; benefit entitlement checks to ensure the customer is receiving all Government benefits to which they are entitled; and trust funds which offer grants to customers for example to write off debts or purchase new appliances.

At the time of the agreements, Government policy was that it was best to allow the companies themselves to decide what form these social tariffs and other social programmes should take and exactly whom they should be offered to, as long as the companies spent an agreed total amount on them. Ofgem agreed with this position:

As previous work by Ofgem has highlighted, if a customer is in a position to switch suppliers and to switch payment methods then there are very significant savings to be made, and in some cases these can be greater than the savings to be achieved by taking up a social tariff. Ofgem remains of the view that competition is the most effective way to ensure customers are protected from high prices.⁵²

Ofgem had suggested, for example, that it was better to allow companies to offer shallower discounts to more customers, if they saw fit.

After the 2008 Budget, supply companies agreed to increase their collective expenditure on social programmes by £225 million between 2008 and 2011.

As energy bills increased, or failed to fall, social tariffs became increasingly controversial. There were wide differences between the offerings of different suppliers, complaints of insufficient information about the tariffs and evidence that energy suppliers had been offering 'social' tariffs that were in fact not as cheap as other tariffs, like 'dual fuel' deals, from the same company. Energy suppliers were also criticised for failing to publicise and explain the lower tariffs, to ensure their take-up.

With the growing controversy over social tariffs, Ofgem changed its position and introduced the condition that social tariffs must be as cheap as the supplier's cheapest tariff, in order to

⁵⁰ Set up by the [Warm Homes and Energy Conservation Act 2000](#)

⁵¹ See [The UK Fuel Poverty Strategy](#), November 2001

⁵² [Ofgem's Review of Suppliers' Voluntary Initiatives to Help Vulnerable Customers](#), Ofgem, 6 August 2007

be allowed to count towards their corporate social responsibility spending (this expenditure must be reported to Ofgem). The new guidelines were announced in July 2008.⁵³

Ofgem also started a drive, in conjunction with Citizens' Advice Bureaux, to publicise social tariffs and try to ensure that vulnerable customers are on the best deals available. Ofgem reports that the uptake of social or discounted tariffs doubled to 800,000 consumers in 2007/08 and that those customers have saved a total of £33.87 million, an increase of 36 per cent on the previous year.

In August 2009, Ofgem reported that the number of accounts on social tariffs had increased to one million at the end of March 2009, and that £130 million of corporate social responsibility spending was on social tariffs.⁵⁴ This amounted to an increase of 285% over the amount spent on social tariffs in 2007/08.

Consumer Focus, the consumer champion organisation for energy, responded unenthusiastically to the 2009 report. The organisation pointed out that half of all fuel poor consumers are under 60 yet some social tariffs are still only available to pensioners. They also pointed out that the figure of one million accounts on social tariffs is misleading, since many households would be on social tariffs for both gas and electricity and would therefore be counted twice. The organisation called for legislation on the type and availability of social tariffs, saying:

Social tariffs remain pitifully inadequate to tackle fuel poverty, with energy firms spending just half a percent of their turnover on them. Only a minority of the over five million fuel poor households in the UK receive help through these discounted rates.⁵⁵

See **Appendix 1** for a table of social tariffs by supplier, including the number of accounts on the social tariffs and average savings.

The commitment to legislate

In July 2009, Energy Secretary Ed Miliband announced that, when the current voluntary agreement comes to an end in 2011, social tariffs would be put on a statutory basis, with compulsory contributions from the energy companies. Legislation would specify that more must be spent and that it must be more targeted at older and poorer pensioners. Mr Miliband said:

Given the costs of transition [to low carbon power] and the priority of tackling fuel poverty, we need to do more to protect the most vulnerable consumers, so I propose to reform the system of social tariffs, as has long been urged. More than 800,000 households now receive discounts and other help with their energy bills. That is part of a voluntary agreement with the energy companies. I propose that when the voluntary agreement ends in 2011, discounts for the most vulnerable will continue not through a voluntary arrangement but through legislation for compulsory support from the energy companies. We will legislate to increase the amount spent, and we intend to target new resources at the most vulnerable consumers, particularly older, poorer pensioners. We must make the transition to low carbon on the basis of energy security and fairness, and we must also seize the industrial opportunities, using the money that the Chancellor allocated in the Budget.⁵⁶

⁵³ Ofgem press notice, [Social tariffs must equal suppliers' cheapest deals](#), 25 July 2008

⁵⁴ Ofgem, [Monitoring suppliers' social programmes 2008-09](#), Report, 18 August 2009

⁵⁵ [Consumer Focus' response to Ofgem's social tariffs report](#), Consumer Focus press notice, 18 August 2009

⁵⁶ HC Deb 15 July 2009 c295

2.2 The provisions in the Bill on fuel poverty

Part 2 of the Bill contains the provision for tackling fuel poverty: the replacement of the present voluntary agreement on social tariffs with a statutory basis.

Clause 8 of the Bill would give the Secretary of State the power to create schemes by Statutory Instrument whereby licensed energy suppliers must provide benefits to those at risk of fuel poverty. The customers affected by a scheme can be defined by membership of a given group defined to be at risk of fuel poverty by the Secretary of State, by the suppliers themselves or by the Secretary of State directly determining an individual's eligibility, for example by giving them a voucher. The clause would also empower the Secretary of State to specify in a scheme how the benefits should be delivered, for example by rebate, how much they should be and how much in total should be made available by a supplier or all suppliers. Subsection (c) would allow a scheme to make a number of technical provisions about how amounts are to be determined.

Clause 9 would make supplementary provisions about how the schemes work, for example providing for arrangements to enable suppliers to identify eligible customers and providing for the prohibition of discrimination against customers who would be eligible for the scheme.

Some suppliers may have more eligible customers among their customers than others. **Clause 10** would provide for the redistribution of costs between suppliers if this is the case. The clause would allow the Secretary of State to create a redistribution mechanism, provide for the possibility of Ofgem operating the mechanism, and allow the operator of the mechanism to determine the payments to it as required. If Ofgem is not the operator, the clause would provide for appeals against the decision of the operator; if Ofgem is the operator, judicial review is available for challenges to decisions. **Clause 11** would provide for the modification of suppliers' licence conditions in relation to any redistribution mechanism.

Clause 12 would ensure that actions carried out under the Bill would be consistent with the *Gas Act 1986* and the *Electricity Act 1989*, and **Clause 13** would require consultation with Ofgem and the suppliers, as well as Treasury approval, before any scheme is created.

Clause 14 provides definitions of terms used in the Bill: what it means to be a person living in fuel poverty and what a reduction in their fuel poverty is. It would provide for the Secretary of State to amend the definition of a reduction in fuel poverty.

Clause 15 lists the amendments to be made to the *Gas Act 1986*, the *Electricity Act 1989* and the *Utilities Act 2000* as a result of the provisions in the Bill. Among other things, these amendments would ensure that Ofgem has the power to enforce regulations made under Part 2 of the Bill; provide that Ofgem's enforcement powers do not preclude individual legal action by an eligible customer against a supplier; and govern the treatment of the information on individuals necessary to make these schemes work.

3 Regulation of the gas and electricity markets (Part 3)

3.1 Background

The majority of the regulation of gas and electricity markets in Great Britain is carried out by the regulator, the Office of Gas and Electricity Market, Ofgem, under the *Utilities Act 2000*. The Secretary of State also has some limited functions.

Part 3 of the Bill contains several provisions to ensure that the regulatory framework promotes secure, low carbon energy supplies while protecting the consumer.

3.2 General duties of Ofgem and the Secretary of State

Ofgem must carry out its duties in accordance with its objectives as set out in statute. A principal objective is to protect the interests of consumers, and where appropriate it must fulfil that by promoting competition.

The Government believes that reducing greenhouse gas emissions and delivering secure energy supplies is in the best interests of consumers and has clarified, through provisions in the Bill, that Ofgem must give due weight to these considerations under its principal objective. The Government recognises that competition may not protect consumers' interests and has included provisions to ensure that Ofgem considers alternative or additional solutions alongside competition if necessary. These could include strengthening licence conditions and enforcement action.

Clause 16 would amend section 4AA of the *Gas Act 1986* to this effect and makes it clear that the interests of consumers include a reduction in emissions caused by shipping, transportation or supply of gas, and a secure supply of gas. **Clause 17** would make a similar amendment to section 3A of the *Electricity Act 1989*. In this clause the interests of consumers include a reduction in emissions caused by the transmission, distribution, generation or supply of electricity and a secure supply of electricity. Both clauses contain provisions to ensure that alternative solutions alongside competition are considered.

3.3 Exploitation of electricity trading and transmission arrangements

In Great Britain, the cables in the electricity transmission network do not always have capacity to send the required electricity to and from all parts the country. This is called a transmission-related "constraint". Electricity generating companies are entitled to operate power stations without taking transmission-related constraints into account.

A constraint therefore requires action to be taken by National Grid plc, in its role as Great Britain System Operator (GBSO), to ensure that supply and demand for electricity is balanced on both sides of this constraint. As part of the balancing mechanism, National Grid can accept, either "offers" to increase electricity generation, or "bids" to reduce it at certain plants.⁵⁷

In the long term, the problem caused by constraints is likely to be solved by improved transmission capacity. The Government expects sufficient transmission capacity to be available by 2015 and additional capacity to be delivered by 2018.⁵⁸ The Government is concerned however, that until capacity is improved, electricity generating companies could unduly exploit the problem with constraint in two main ways:

- Manipulation of where electricity is generated in order to achieve excess profit from either 'offers' to generate electricity or 'bids' to reduce electricity. This hinges on whether, because of the limited number of generation plants in particular locations, the company can predict when National Grid would have no choice but to accept an offer or bid in order to be able to balance electricity demand and supply.
- Making exploitative bids to take advantage of being behind a constraint and being the only company with which National Grid can arrange balancing actions with. For example they may be the only generator available to reduce output in a particular location and so can name their 'bid' price and/or they might use such a locational

⁵⁷ Department of Energy and Climate Change, *Energy Bill Factsheets: Market Power Licence Condition*, November 2009

⁵⁸ Electricity Networks Strategy Group, *Our Electricity Transmission Network: A Vision for 2020, Full Report*, July 2009

advantage to extract unduly high 'arming fees' for inter-trip^[59] contracts with National Grid.⁶⁰

Exploitation and manipulation of the constraint balancing system ultimately makes electricity more expensive for consumers. A February 2009 letter from National Grid to Ofgem explains the increasing financial implications of the problem:

National Grid Electricity Transmission (NGET) is forecasting a significant increase in the cost of constraints for the year commencing 1 April 2009. NGET has indicated that you expect constraint costs of £262 million for 2009/10. At this level, constraints costs will be 10% higher than the current forecast for 2008/9 and almost four times higher than in 2007/8. Under the current charging arrangements, this rapid increase in constraint costs will largely be borne by suppliers and will, over time, be passed through to customers (at a rate which will depend, for example, on the extent to which customers are on fixed price contracts).⁶¹

Ofgem is concerned that Great Britain's wholesale electricity market is increasingly vulnerable to such exploitation of market power. The reasons for this are:

- the current shortage of transmission capacity relative to the transmission entry rights sold to generators;
- the reduced availability of transmission capacity as a result of outages related to the investment programme to upgrade capacity;
- a significant increase in new renewable generation connecting to the system; and
- environmental legislation limiting the use of certain types of generation capacity.⁶²

Ofgem is further concerned that its existing competition law powers are unlikely to be effective in addressing the problem.⁶³ Although section 18(1) of the *Competition Act 1998* prohibits conduct by companies which amounts to an abuse of a dominant position, it is difficult to apply it to electricity generating companies exploiting this particular situation. This is because market power is often intermittent in nature and may be held by more than one generator at key times. It renders the task of establishing dominance problematic.⁶⁴

Indeed, in 2007 Ofgem held a *Competition Act 1998* investigation into the behaviour of ScottishPower and Scottish and Southern Energy. It was alleged that these companies withheld electricity generation from the wholesale market, while using the same plant to supply electricity at excessive prices to National Grid to keep the balance. Ofgem ultimately decided however, that continuing the investigation would be an "inefficient use of resources" due to the "low" likelihood of being able to make an infringement decision under the Act.⁶⁵

⁵⁹ An inter-trip arrangement is where an electricity generating company is paid a fee by National Grid, to allow National Grid to take a particular plant off of the system via an automatic trip-switch should the network become overloaded.

⁶⁰ Department of Energy and Climate Change, *Energy Bill Factsheets: Market Power Licence Condition*, November 2009

⁶¹ Letter from National Grid to Ofgem, *Managing Constraints on the GB Transmission System*, 17 February 2009

⁶² Ofgem, *Addressing Market Power Concerns in the Electricity Wholesale Sector – Initial Policy Proposals*, 30 March 2009, para 1.9

⁶³ Ibid

⁶⁴ Ibid, p19

⁶⁵ Ofgem information note, *Ofgem closes Competition Act 1998 case against ScottishPower and Scottish and Southern Energy*, 19 January 2009

Instead of continuing with the investigation, in March 2009 Ofgem launched a consultation on *Addressing Market Power Concerns in the Electricity Wholesale Sector – Initial Policy Proposals*.⁶⁶ The consultation considered three different approaches as to the best way to tackle the issue of undue exploitation of market power in the wholesale electricity sector:

- price capping;
- referring the market to the Competition Commission for a market investigation reference, so that some generators could be required to divest some of their market power; and
- introducing a Market Power Licence Condition (MPLC) in order to strengthen Ofgem's powers to carry out ex-post investigations of generator behaviour and to impose fines or other sanctions if participants were found to be exploiting unduly a position of market power.⁶⁷

Ofgem concluded that modifying electricity generation licences to include an MPLC was the only option fully able to address market power concerns.⁶⁸ In response to Ofgem's consultation, however, some energy companies have said that they do not think that an MPLC would be the best way to proceed. For example, this response by ScottishPower expresses concern that an MPLC may deter investment in electricity generation:

We also believe that the specific proposal of a MPLC applied to generators would be contrary to customers' interests, because it would put a significant question mark on investment. A commodity-only market will tend to trade close to short run marginal cost in periods of adequate or over-supply, with significant spreads opening out only in periods of tightness. The area under these spikes must be perceived by investors as sufficient to remunerate the capital, if new plants are to proceed.

The proposed condition would (if it is to have any effect at all) restrict behaviours that were otherwise permissible under competition law. This would be perceived by investors as restricting the ability of plant to earn in the spikes and therefore a disincentive to investment in a situation where spreads are already below entry cost and investment is dependent on a perception that they would grow. We do not think investors will understand how Ofgem would be able to differentiate between a "good spike" and a "bad spike" and consider that they are more likely simply to send their capital elsewhere. This would not be an outcome that is in consumers' interests.⁶⁹

Clauses 18 – 25 of the Bill would allow for an MPLC to be introduced. The clauses would also provide for a specific appeal process whereby generating companies would have the right to appeal directly to the Competition Appeal Tribunal (CAT) against any enforcement orders or penalties imposed by Ofgem.

Clause 18 would give the Secretary of State the power to modify the electricity generation licences so that they could incorporate an MPLC. **Clause 18(2)** would limit this power so that a modification could only be made if it related to "limiting or eliminating the circumstances in which a generation licence holder may obtain excessive benefits from electricity generation in a particular period."

⁶⁶ Ofgem, *Addressing Market Power Concerns in the Electricity Wholesale Sector – Initial Policy Proposals*, 30 March 2009

⁶⁷ Ofgem, *Addressing Market Power Concerns in the Electricity Wholesale Sector – Initial Policy Proposals*, 30 March 2009, p4-5

⁶⁸ Ibid, p36

⁶⁹ ScottishPower, *Response to Addressing Market Power Concerns in the Electricity Wholesale Sector – Initial Policy Proposals*, 8 May 2009

Clause 18(3)-(7) would define further what obtaining “excessive benefits” would mean in practice for the electricity generating company. It would mean that the company (the licence holder) had entered into an agreement with the GBSO (National Grid plc) and that one, or more, of the following conditions are met:

- the licence holder does not notify [to the GBSO] electricity generation that would have been economic to carry out and may receive excessive payments in connection with an increase in electricity generation in the relevant period;
- the licence holder may pay an excessively low amount, or may receive an excessively high amount, in connection with a reduction in electricity generation in the relevant period;
- the licence holder is paid an excessively high amount for an inter-trip arrangement;
- or there is an increase or reduction in the licence holder’s electricity generation in a specific period, compared to their notified generation, as a result of which the licence holder may obtain an excessive benefit.⁷⁰

Clause 19 would set out the procedure that the Secretary of State must comply with to make a licence modification. It includes a duty to consult the licence holders and Ofgem on the detail of the MPLC. **Clause 19(4)** would also provide that the MPLC must be laid in draft before Parliament for 40 days, with Parliament having the power to reject the draft. If it is rejected it would mean that the Secretary of State could not then proceed with it further, although it would not prevent a new draft from being laid subsequently.

Under section 25 of the *Electricity Act 1989*, Ofgem would be able to make an “order” to secure compliance with an MPLC. **Clause 22** would allow any electricity generating company that had been subject to an order, to be able to appeal directly to, and only to, the Competition Appeal Tribunal (CAT). Under **Clause 22(3)**, the CAT could either determine the appeal itself, or remit the matter back to Ofgem. If the CAT takes on the appeal, **Clause 22(4)** would give it the option to do one of three things: uphold the order; set aside the order either in whole or in part; or substitute for the order one of its own.

Under section 27A of the *Electricity Act 1989*, Ofgem would be able to impose a financial penalty on an electricity generating company in respect of an MPLC. The current penalty is “of such amount as is reasonable in all the circumstances of the case”.⁷¹ **Clause 23** would provide that any company subject to a penalty could appeal directly to, and only to, the CAT. Again, the three options open to the CAT would be: to uphold the penalty; to set it aside; or to substitute for the penalty one of its own.

Clause 24 sets out the circumstances in which a further appeal arising from points of law and decisions made by the CAT would be possible. Under this clause an appeal could be made to the Court of Appeal or, in Scotland, to the Court of Session, provided that the CAT or the appropriate court has given permission.

Clause 25 would provide for a limited period during which an MPLC can be made under **Clause 18**. The Government wants to give some certainty to investors that the profitability of electricity supply business will not be compromised indefinitely by an MPLC (see the comments above from ScottishPower). However, the Government is of the opinion that investment by the GBSO and the generating companies should resolve the problem of transmission constraints, and has therefore set an initial limit of 5 years for the power, to give

⁷⁰ *Energy Bill*, Bill 7 2009-10, *Explanatory Notes*, p19

⁷¹ Section 27A(1)(b) *Electricity Act 1989*

a firm time frame for the policy. **Clause 25(2)** would allow for this period to be extended, with secondary legislation, to up to 7 years to cover the possibility that investment work has not been completed after 5 years.

Under **Clause 25(3)** it would not be possible for the Secretary of State to make an order to extend the power to make an MPLC after five years from the date on which **Clause 18** comes into force. **Clause 25(7)** would give the Secretary of State power to modify an electricity generation licence or other regulatory instrument: ‘as he or she considers appropriate in consequence of subsections (1) and (5),’ subject to compliance with the provisions in **Clause 19**. This clause refers to the necessity to remove conditions from licences once the power to make them under **Clause 18** expires.

A DECC factsheet sets out the timetable for an MPLC to come into effect:

- Summer 2010: DECC consultation on the detailed licence condition alongside consultation on Ofgem’s document setting out their proposed approach to interpretation and enforcement;
- Winter 2010: Table licence condition for Parliamentary scrutiny; and
- First quarter 2011: Market Power Licence Condition operational.⁷²

3.4 Time limit for the imposition of financial penalties by the regulator

Under the *Gas Act 1986* and the *Electricity Act 1989*, Ofgem has powers to grant licences for the distribution and supply of gas and electricity. Under section 30A-C and section 27A-C respectively, Ofgem has the power to impose financial penalties for breaches of these licence conditions. There are, however, restrictions on the penalties. A financial penalty must not exceed 10% of the licence holder’s turnover in the business year directly before the penalty notice was issued, and the penalty must be imposed within twelve months of the breach occurring.

There are circumstances where this time limit is inadequate to enable Ofgem to identify a pattern of consumer complaints, carry out an investigation to establish the extent of the breach and impose a penalty. An example of this is npower’s change of price structure, which began on 1 May 2007. This had the potential to disadvantage some customers but as npower considered that no customer would be worse off it did not notify them of the change, as required by the licence condition. The matter was reported in the press.⁷³ Ofgem investigated the issue but was hampered by the twelve month limit.⁷⁴

Subsections (1) and (2) of **Clause 26** amend section 30C(1) of the *Gas Act 1986* and section 27C(1) of the *Electricity Act 1989* to increase the time limit from twelve months to five years. This is intended to increase the deterrent effect of the enforcement regime, by allowing Ofgem sufficient time to make effective use of their existing enforcement powers.

3.5 Disadvantaged customers

Ofgem’s Energy Supply Probe of 2008 found that energy suppliers usually earned higher profit margins from supplying electricity than from supplying gas.⁷⁵ The explanation for this was that discounts are offered to ‘dual fuel’ customers, meaning that those customers buying one fuel only from a supplier were effectively subsidising those who bought both fuels. Most

⁷² Department of Energy and Climate Change, [Energy Bill Factsheets: Market Power Licence Condition](#), November 2009

⁷³ ‘npower feels the heat as overcharging row grows’, *Times Online*, 31 October 2009,

⁷⁴ [npower two tier tariffs-decision by Ofgem to close case](#)

⁷⁵ [Energy supply probe- Initial findings report](#), Ofgem, October 2008

of the customers who do not benefit from a 'dual fuel' discount buy electricity only from their supplier because they have no access to mains gas, so have no choice in the matter.

One of the new licence conditions introduced by Ofgem in the wake of the Energy Supply Probe was a prohibition on undue discrimination where price differentials do not reflect cost differentials (the most controversial discrimination was the higher charges for users of pre-payment meters). The prohibition does cover the practice of cross-subsidy between electricity and gas supply but the licence condition is due to expire in 2012. There are powers in the *Gas Act 1986* and the *Electricity Act 1989* which allow the Secretary of State to adjust charges for disadvantaged customers, but the powers do not cover the practice of cross-subsidy between electricity and gas. If Ofgem had not moved to prohibit it, the Secretary of State would have been powerless to do so.

Clause 27 of the Bill would give the Secretary of State powers to make regulations which set up schemes for the adjustment of energy charges for those sets of customers of a particular supplier whom the Secretary of State considers to be less favourably treated than other customers: 'disadvantaged customers'. The clause would provide that those sets of customers could be the electricity customers of that supplier, gas customers or 'dual fuel' customers, or combinations or subdivisions of those sets. The clause specifies which charges can be adjusted and ensures that the Secretary of State and Ofgem's general duties under the Gas and Electricity Acts apply to the provision in the clause.

Clause 29 would provide for the notice that the Secretary of State must give of a scheme, the period for which any adjustment would remain in force, and the sharing of information by the energy suppliers. It also deals with monitoring and reporting by Ofgem of the effects of any adjustment.

Clause 30 would allow the Secretary of State to exclude certain sets of customers from any scheme and defines 'energy supplier'.

Clause 31 deals with consequential amendments and appeals.

4 Final provisions (Part 4)

Part 4 makes provision for orders and regulations, expenditure by the Secretary of State or Ofgem, and commencement.

5 Comments on Bill

5.1 Comments from political sources

The Conservatives are reported to support the Bill:

Shadow energy secretary Greg Clark last week said he supported Miliband's energy plans, but criticised the government for delays on energy policy that had led to a "last minute scramble." He also said industry figures had suggested the CCS competition was likely to be delayed from its 2014 deadline for active demonstration plants.⁷⁶

In the Debate on the Address, Greg Clark alluded to the "cross-party consensus on addressing our need to close the energy gap" but criticised Government energy policy during its 12 years in office for not delivering security of energy supply, describing the Bill's contribution to the problem as "weak and feeble".⁷⁷ In particular he mentioned insufficient gas

⁷⁶ 'Energy bill in Queen's speech latest step to low-carbon economy in Britain', *Guardian Unlimited*, 18 November 2009

⁷⁷ HC Deb 24 November 2009 c417-424

storage capacity, the tardiness of new nuclear build and carbon capture and storage (CCS) development, the poor rate of increase of renewable generation and the failure to capitalise on technology and skills to develop it. He particularly criticised the Bill for failing to include measures on domestic energy efficiency which would cut energy consumption, cut bills, provide employment and largely pay for themselves.

He set out urgent measures to increase diversity in energy supply that would be included in an Energy Bill in the first Queen's Speech of a new Conservative Government. These include energy efficiency measures, immediate deployment of CCS without a competition, immediate ratification of the planning guidance on new nuclear build and a mandate to extend both the offshore and onshore national grid network. He said the Conservatives would support the building of marine energy parks. The national grid would be updated to a 'smart grid', the deployment of 'smart meters' would be accelerated and communities that accept wind farms would be allowed to keep 6 years' worth of the business rate that arose from the project.

Greg Clark also said that charging points for electric vehicles are needed all around the country and more information should be provided on energy consumers' bills, and called for greater transparency on wholesale prices. He committed a Conservative Government to:

give every household in the country a green energy deal that would allow them to have the energy efficiency improvements that would cut our CO₂ emissions, save them money and get people back to work...⁷⁸

The Liberal Democrats are reported to be disappointed that energy efficiency was not included in the measures. Simon Hughes, Liberal Democrat Shadow Energy Secretary, said:

If you insulated every home properly in Britain it would be equivalent of taking all the cars of Britain off the road. What the country needs is a united policy to deliver a warm home for every household.⁷⁹

He reiterated this point in the debate on the Address.⁸⁰ He believes that the Bill should include a serious programme, driven by Government and managed locally, to make every home a warm home, instead of the piecemeal schemes at present. He mentioned the matter of finance which he believes that the Government should underwrite. He thinks a realistic estimate for the programme would be £200 billion. The Conservatives replied that it would amount to about 2 per cent on energy bills and could be managed without a huge injection of public money.

He highlighted that the Labour and Conservative Parties both believe that nuclear is necessary while the Liberal Democrats do not.

Simon Hughes referred to the Bill as a "mouse of a Bill when we could have done with a mountain."⁸¹ He also mentioned the need to give the policy measures some urgency.

He agreed on the need for coal, as long as it is "clean coal",⁸² and therefore supported the measures in the Bill. He thought the provision for a statutory basis for energy supply subsidies for poorer households was important. He requested clarification regarding the change in wording of Ofgem's objectives:

⁷⁸ HC Deb 24 November 2009 c424

⁷⁹ 'Energy bill in Queen's speech latest step to low-carbon economy in Britain', *Guardian Unlimited*, 18 November 2009

⁸⁰ HC Deb 24 November 2009 c429-36

⁸¹ HC Deb 24 November 2009 c429

⁸² HC Deb 24 November 2009 c431

It is not clear to me whether that will guarantee that, in future, every utility company has to have a tariff that does not discriminate at all on the basis of method of payment, and whether it will guarantee that poorer households and low users will always pay at a lower rate than the people who consume more. That is the iniquity. As Ministers know, the unit cost for the low user is higher than the unit cost thereafter. All sorts of fiddles, to put it bluntly, mean that no one can work out the system, because there are 4,000 different tariffs. I should be grateful to know whether Ministers are happy to accept amendments to the Bill that will make that absolutely clear in the measure itself-not in regulations that may, or may not, deliver-so that we can ensure that those things happen.⁸³

5.2 Comments from others

Jonathan Freedland writes in the *Guardian* that the Bill is a missed opportunity on climate change:

The energy bill is a hoovering exercise: a move to round up policies already announced and get them on to the statute book before the election. (...)

Ultimately, this rag-tag bill is a missed opportunity. With the Copenhagen summit days away and climate change in the public eye as never before, the government should be seizing every opportunity. Ed Miliband was right to keep cheap politics out, but he missed a chance to send an important signal.⁸⁴

Simon Read writing in the *Independent* welcomed the inclusion of measures in the Bill to alleviate fuel poverty but criticised them for being insufficient:

I was pleased to see in the Energy Bill, announced as part of the Queen's Speech on Wednesday, mandatory help for fuel-poor energy customers. The move will provide essential relief for some of the poorest and most vulnerable pensioners and disabled people. But until we get to a situation when no one has to turn off their heat because of the cost, then the move isn't enough.⁸⁵

He agreed with the reported view of Consumer Focus that all households in fuel poverty should be entitled to help and that they should get the cheapest energy supply deal possible:

Discounted tariffs should be extended to pensioners, families with children and disabled people eligible for Cold Weather Payments, as well as people on means-tested benefits with school-age children. Jonathan Stearn, energy expert for Consumer Focus, says: "We're glad to see that the Government is showing leadership on tackling fuel poverty, by moving to cut the bills of the poorest energy customers. However, these plans must ensure that the millions of vulnerable pensioners, families and disabled people living in fuel poverty get the cheapest deal possible."⁸⁶

The Energy Retailers Association (ERA) made the following comment applauding social price support in the Bill:

We welcome new policies that will help support people in fuel poverty. The Government is best-placed to identify exactly who those people are and to target help where it is most needed. Energy suppliers recognise they have a role to play in tackling the issue, alongside a range of other organisations such as local authorities, social landlords and charities.

⁸³ HC Deb 24 November 2009 c432

⁸⁴ 'Comment and debate: Labour's last throw of the dice', *Guardian*, 19 November 2009 p32

⁸⁵ 'Everyone should be able to keep warm', *Independent*, 21 November 2009 p62-3

⁸⁶ 'Everyone should be able to keep warm', *Independent*, 21 November 2009 p62-3

Energy companies are collectively spending nearly £2bn over the next three years on free insulation and other measures to help people keep their fuel bills down. Anyone who is worried about staying warm this winter should contact their energy company or the free Home Heat Helpline on 0800 33 66 99.⁸⁷

npower reiterated the first paragraph and last sentence of ERA's comment and added information about the company's own commitment to reducing energy use and social support:

npower has committed nearly £480m over the next three years for programmes which help consumers reduce their energy consumption. We currently install 120 insulation measures every hour of every working day, we already have a social tariff; in addition, we provide further help through programmes such as Health Through Warmth.⁸⁸

E.ON supports the proposals in the Bill, especially the frameworks for CCS demonstrations and social tariffs, which should provide clarity about who will receive support and the level of it. It would like to see the legislation passed as soon as possible.

E.ON agrees that energy supply companies have a key role to help the most vulnerable customers adequately heat their homes, and therefore supports the introduction of mandatory social price support to provide automatic fixed payments to pensioners on low fixed incomes. It believes this will protect vulnerable customers from future levies on energy bills to support investment in a low carbon economy. E.ON comments that, as energy efficiency is always likely to be more long-term help to the fuel poor, it would like to see sustainable and well- targeted support linked to energy efficiency for this broader group.

The company supports the measures on CCS as part of a low-carbon, secure and affordable energy mix, but believes that the Bill is a useful opportunity to clarify the position with additional measures that are necessary to provide:

certainty over future financing should the market framework not support investment in a full retrofit of CCS to a power station. Companies will also need certainty around the possible introduction of a contingency regime should the technology not be proven in the timescale envisaged.⁸⁹

With regard to the clarification of Ofgem's duties protecting consumers, E.ON comments:

Our concern overall with this area of the Bill is that, as drafted, it will be less clear to regulated companies what factors are in fact driving the decisions of the regulator. If the regulator's decisions become unpredictable it may add to regulatory risk and deter investment. It will therefore be essential for the regulator to clarify in what circumstances actions other than promoting effective competition are considered better to protect the interests of consumers and exactly how it proposes to reflect the interests of consumers in relation to greenhouse gas emissions reduction and security of supply in its decisions.⁹⁰

⁸⁷ Personal communication, 23 November 2009

⁸⁸ Personal communication, 23 November 2009

⁸⁹ Personal communication, 25 November 2009

⁹⁰ Personal communication, 25 November 2009

6 The Bill

Further information is in the Bill and the associated explanatory notes which can be downloaded from the Energy Bill page on the [UK Parliament website](#).⁹¹

⁹¹ UK Parliament website, Bills before Parliament 2009-10, [Energy Bill](#)

Appendix 1: Social tariffs savings and costs as at March 2009

Supplier	Tariff name	Tariff offer	Accounts on tariff at 31/03/09	Av. consumpt. (kWh)	Total savings to customers	Average saving per account
British Gas	Essentials (Electricity)	Equalises to Direct Debit tariff	181,590	4,120	£10.5m	£58
	Essentials (Gas)		311,509	16,530	£62m	£199
	Price Promise (Electricity)	Tariff closed to new entrants in 2007. Customers have had prices frozen since its launch. One price increase in March 2008 of 15%. Tariff is generally cheaper than Essentials	11,558	4,240	£1.7m	£150
	Price Promise (Gas)		11,622	18,580	£3.13m	£269
	Total		516,279		£77.4m	
EDF Energy	Energy Assist (Electricity)	15% discount off tariff	99,073	4,215	£6m	£60
	Energy Assist (Gas)		45,939	15,153	£2.8m	£62
	Total		145,012		£8.8m	
E.ON	Staywarm social (Electricity)	Fixed annual price regardless of consumption levels	25,019	5,097	£15.6m	
	Staywarm social (Gas)		23,572	29,577		
	WarmAssist (Electricity)	15% discount	428	3,108	<0.1m	£13
	WarmAssist (Gas)		36	16,588	<0.1m	£22
	WarmAssist (Dual fuel)		2,826	3,108/16,588	<0.1m	£13
	Total		51,881		£15.65m	
npower	First Step (Electricity)	Equalises to lowest tariff – a legacy tariff and is closed to new entrants.	2,757	6,408	£0.64m	£233
	First Step (Gas)		1,823	19,220	£0.32m	£176
	Spreading Warmth (Electricity)	Annual discount of £125 per fuel (£250 for a dual fuel customer). Customers joining after December 2008 received a credit for one quarter applied to their account.	62,494	3,767	£11.32m	£104
	Spreading Warmth (Gas)		46,762	16,162		£104
	Total		113,836		£12.28m	
Scottish Power	Fresh Start (Electricity)	All customers pay the same lowest price in their area regardless of payment method	43,383	4365	£0.77m	£18
	Fresh Start (Gas)		27,852	16711	£0.7m	£25
	Carefree Plus (Electricity)	Daily discount to the value of £111.56 plus additional other benefits eg BECs	2,136	NA	£0.030m	£14
	Carefree Plus (Gas)		1,151	NA	£0.013m	£11
	Total		72,386		£1.5m	
SSE	Energyplus Care (Electricity)	Minimum 20% discount plus excluded from Aug 2008 price increase	64,661	4,558	£3.7m	£57
	Energyplus Care (DF)		38,279	4,558/19,044	£11.2m	£293
	Total		102,940		£14.87m	
Total	Electricity		493,099			
	Gas		470,266			
	Dual Fuel		41,105			
	Total		1,004,470		£130m	£130

Source: *Monitoring suppliers' social programmes 2008-09*, Ofgem, August 2009

Appendix 2: Estimated number of households in fuel poverty, 1996-2007

The Fuel Poverty Strategy requires the Government to publish statistics in an annual report, and to target help on vulnerable households. Vulnerable households are those that contain the elderly, children or somebody who is disabled or has a long-term illness.

Estimated households in fuel poverty in the UK

millions

	1996	1998	2001	2002	2003	2004	2005	2006	2007
Vulnerable	5.0	3.5	2.0	1.75	1.5	1.5	2.0	2.8	3.3
Total	6.5	4.75	2.5	2.25	2.0	2.0	2.5	3.5	4.0

Note: Households in fuel poverty using the full income definition

Source: Annual report on fuel poverty statistics, 2009. DECC