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UK Electricity Market Reform – The White Paper

July 2011

Executive summary

On 12 July 2011 the Government published its White Paper “Planning our electric future: a White Paper for secure, affordable and low-carbon electricity” (the **White Paper**). Alongside the White Paper, the Government also published supporting documents, including a UK Renewable Energy Roadmap (the **Renewables Roadmap** – see box below), Impact Assessments in relation to the Electricity Market Reform and the Emissions Performance Standard and a final report in relation to a review of Ofgem.

These documents follow from the Electricity Market Reform consultation launched on 16 December 2010 and the Carbon Price Support announced in this year’s Budget, and refer to the ongoing Retail Market Review by Ofgem into liquidity issues and meeting the needs of independent generators and suppliers. We have previously reported to you on this consultation and review – copies of our reports on these issues can be found at: www.allenoverly.com/UK-Electricity-Market-Reform.

As we have said, the key question in relation to the proposed Electricity Market Reform is *will the proposed reforms produce a regime that is better suited to attracting the type of capital in the amounts necessary to meet the Government’s aims of security of supply, decarbonisation and affordability?*

The Secretary of State, Chris Huhne, stated that the objective of the reform is to provide the clarity and certainty that investors need and he believes that the White Paper does this. We share that belief – the proposed structure is clearly more investment friendly than the “business as usual” base-line and is backed up by legally binding protections in relation to no retrospective changes in policy.

However, there are still significant challenges to be overcome to deliver a decarbonised future for UK electricity generation. These challenges include:

- Completing the remaining consultations and considerations highlighted in the box entitled “Ongoing Issues” below (including importantly the development of the capacity mechanism and the obtaining of necessary approvals from the EU), in good time to allow the legislative process to start in the first half of next year. While certain of these issues need to be resolved as a precursor to the legislation, if the Government has exposure under the Feed-in Tariffs with Contracts for Differences (**FiT CfDs**) to a change in policy, it is incentivised to have a fully developed policy before these are implemented. A chart showing the timelines for the various elements of the proposals is included at the end of this Executive Summary.
- The Green Paper envisaged feed-in tariffs being introduced in 2013 or 2014. The White Paper contemplates the first FiT CfDs being signed in 2014 with possible first payments in 2016. Given the intention for the FiT CfD to be more attractive than Renewables Obligation Certificates (**ROCs**), any delay in this process risks a hiatus for renewables investment.
- In this age of austerity, affordability must remain a key consideration given concerns over rising fuel poverty, the impact on the “squeezed middle” of the indirect taxation¹ implicit in the Electricity Market Reform support and any loss of competitiveness for UK industry caused by higher input energy prices. The financial appraisal conducted by Government shows that:

1. As the White Paper notes, the appropriate treatment of the support for low-carbon generators under Electricity Market Reform is likely to fall under the definition used by the ONS for indirect taxation and spending. This means that the payments will appear in the public finance aggregates.

- The Electricity Market Reform packages under a FiT CfD offer the greatest benefits to society, around £9 billion for the period to 2030, compared to continuing with current policy.
- Electricity prices and bills could rise in the short term, but over the long-term costs to business and to the consumer will be lower than without reform. Average consumer bills are estimated to rise by around £200 from 2010 to 2030 without reform. Electricity Market Reform will limit this increase in bills to around £160, a saving of £40 per customer on the average bill.

It is not clear if these figures for consumer bills take account of any levy to fund FiT CfDs (though the preferred funding mechanism has not yet been decided) and of course much depends on the actual trajectory of oil and gas prices.

- In this context, the rigour of the administrative process to set strike prices and other terms of the CfDs will need careful handling. The Government has conceded that the conditions for a competitive process for setting a strike price will not exist in the market in the near future, though generation commissioned post-2020 is intended to be subject to an auction or tender process which is ultimately envisaged to be technology-neutral. There is at this stage little visibility as to the strike prices envisaged (though renewables can continue to accredit for ROCs until 2017 – see the box “Transitional Arrangements” below, providing a *de facto* floor).

The strike prices arising from this process will of course have a fundamental impact on the levels and mix, and cost/profitability, of low-carbon generation (and the Government is projecting the cost of support for low-carbon mechanisms reaching £6bn per annum). Even if the relevant organisation charged with entering into/overseeing the FiT CfD is at “arm’s length” from Government, it is hard not to conclude that Government will be driving decisions as to technology choice (at least until technology-neutral auctions occur post-2020), and de-emphasising the role of market mechanisms for electricity.

- The identity and creditworthiness of the counterparty to the FiT CfDs is fundamental. The body selected to deliver FiT CfDs will not necessarily be the counterparty, as it may only have an oversight role. This issue clearly links to the funding mechanism chosen. The creditworthiness of the counterparty underpins the efficiency of the contractual provisions on change in policy, as well as ensuring revenue levels and stability more generally.

Equally the robustness and transparency of the process of contract awards will be crucial. The volumes of generation the Government is anticipating as being subject to FiT CfD contracts (which, absent being specified in a competitive process, will be a function of the criteria for the award of a contract) are not yet clear.

- The absence of the “pull” of the Renewables Obligation (**RO**) to incentivise suppliers to enter into PPAs (and provide an economic driver towards renewables targets), raises questions about the route for independent low-carbon generators to capture the reference price. The ability to do so without an unacceptable discount is fundamental to the FiT CfDs removing commodity (wholesale price) risk as intended without undue inflation of the strike price. The Government envisages aggregation services complementing PPAs from suppliers who can manage balancing risk, but also independent generators trading directly. While there are prospectively wider routes to market for independent generators (and no floor on the power price is required due to the

nature of the FiT CfDs), there appears to be a number of impediments to direct trading. However, the White Paper demonstrates not only a much greater focus on liquidity, building on Ofgem's work, but also a determination to improve route to market options that are consistent with the FiT CfD – *“The Government will, therefore take actions to improve routes to market should that prove necessary.”*

The Government recognises that there will initially be relatively small quantities of FiT CfD supported power in 2014 and suggests that current day-ahead liquidity can support this. It will, however, be important that liquidity grows at a sufficient rate not to constrain FiT CfD generation.

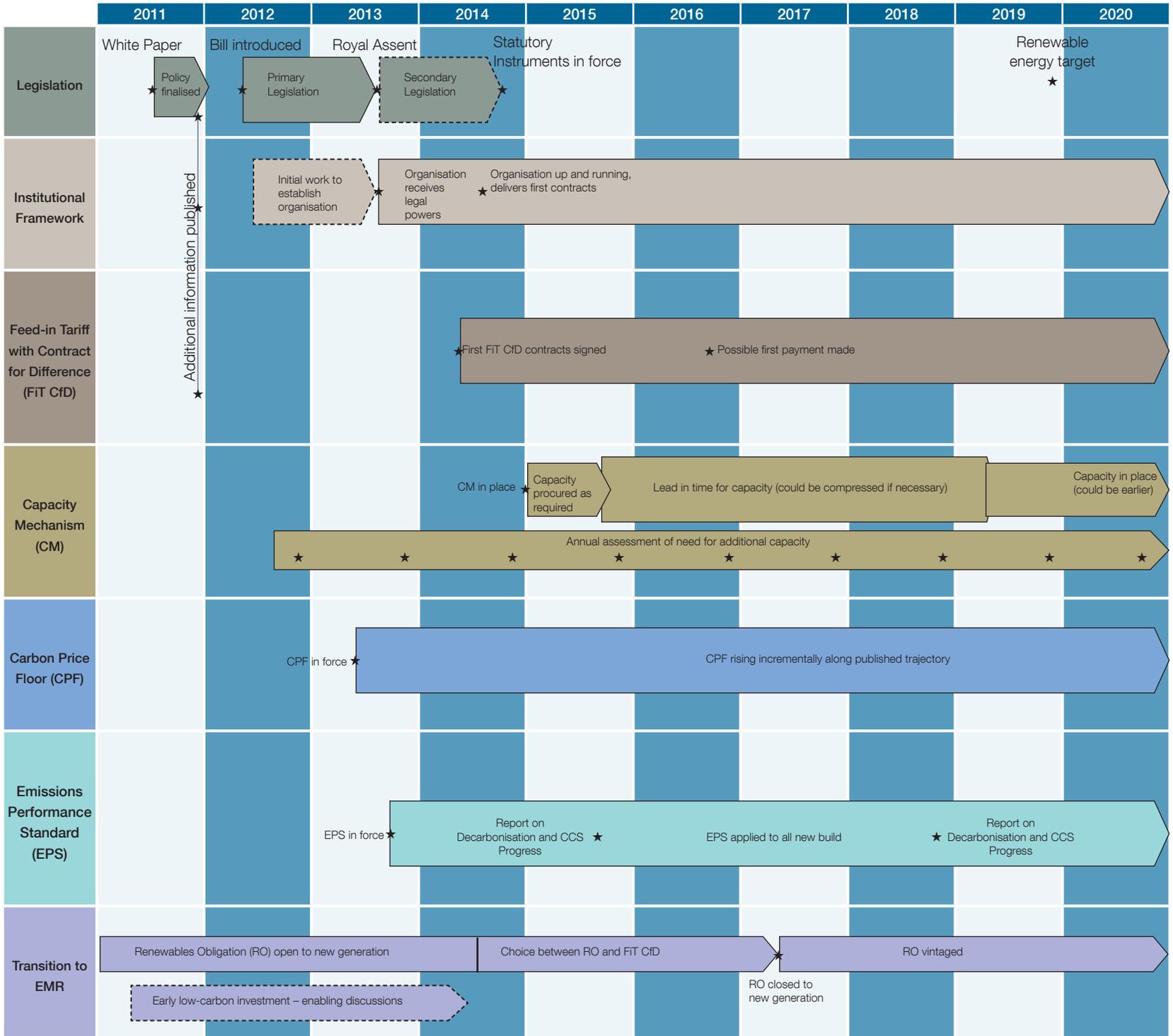
- There is a redefinition of the roles of the Government and Ofgem. The Government will set out policy goals for energy markets and Ofgem will be required to set out how it plans to deliver its contribution to each policy outcome. As well as increasing certainty this also minimises Government's exposure under the “change in policy” provisions of FiT CfDs.
- How will the FiT CfD incentivise the delivery of a programme rather than one-off assets? It would be undesirable to see a repeat of the OFTO situation where the windfall returns to developers are not committed to re-investment. An ongoing programme of investment in low-carbon generation is fundamental to the Government achieving its goal of substantial decarbonisation of the power sector by the 2030s, as a prelude to decarbonisation of other sectors; the investment in generation and transmission over the next decade is estimated at £110 billion. This will strain sources of both debt and equity funding. Accordingly recycling of construction equity through new classes of financial investor and refinancing of construction debt in public debt markets must be facilitated; it is not just a question of the cost of capital, but its supply (when many other nations face similar funding challenges). The Government has recognised that stability and predictability are the foundations of this, but the mechanisms to promote this recycling will have to emerge as the replacement of the utilities as the principal providers of construction equity seems unlikely in the short to medium term.

However, these challenges can now be faced against the backdrop of a more clearly enunciated policy which will be backed up by legally binding commitments. It is critical that Chris Huhne's commitment, at the launch of the White Paper, that the FiT CfD will be the vehicle under which Government and not the private sector will take the risk on future changes in policy is maintained in practice.

In the remainder of this briefing, we provide you with a brief synopsis of the White Paper, a discussion of some of the most interesting issues which arise, more detailed summaries of the proposals and finally a summary table of the impact of the proposals for different types of generation.

We hope that this briefing provides you with all you need to know, though note that the detailed analysis behind many of the conclusions in the White Paper is contained in the two Impact Assessments and the accompanying CEPA report. We have highlighted some aspects of this analysis in this briefing but for those seeking a more in-depth analysis of the thinking behind the White Paper we would recommend a review of these documents.

Should you wish to consult the underlying documentation, the documents published by Government are available for download at: www.allenoverly.com/UK-Electricity-Market-Reform.



Synopsis

Overview

- Three of the four limbs of Electricity Market Reform have now been confirmed:
 - In the 2011 Budget, the Government announced that it would put in place a Carbon Price Floor (**CPF**). This is intended to reduce investor uncertainty, put a fair price on carbon and provide a stronger incentive to invest in low-carbon generation.
 - It is recognised that the CPF alone will be insufficient to bring forward the investment required. Long-term contracts, FiT CfDs, will therefore be available to stabilise revenues and reduce risks to support investment in all forms of low-carbon electricity generation.
 - An Emissions Performance Standard (**EPS**), set at 450g CO₂/kWh for new baseload plant, will be introduced to provide a clear regulatory signal that new coal plants must limit their emissions.
- The White Paper concludes that a Capacity Mechanism is needed to ensure future security of electricity supply. The targeted proposal postulated in the consultation did not meet with sufficient support and the Government is therefore consulting again on the type of mechanism required and will report on this around the turn of this year.

A brief introduction to these four elements together with the other principal themes contained in the White Paper follows.

Carbon Price Floor

- In the 2011 Budget, the Government announced the introduction of a CPF from April 2013. This is designed to top up the EU Emissions Trading System (**EU ETS**) carbon price to a target trajectory for the UK electricity generation sector.
- The CPF will be introduced by removing from the Climate Change Levy the current exemption for supplies of fossil fuels which are used to generate electricity in the UK. For generators who use oil to generate electricity, the amount of fuel duty they can reclaim will be varied.
- The CPF as announced in the 2011 Budget at around £15.70/tCO₂ in 2013 and follows a straight line to £30/tCO₂ in 2020, rising to £70/tCO₂ in 2030 (real 2009 prices). The figure of £15.70/tCO₂ is based on a carbon price support rate equivalent to £4.94/tCO₂ and projections of EU ETS prices and of exchange rates.
- Further details of the CPF are set out in our March 2011 Bulletin, available at www.allenoverly.com/UK-Electricity-Market-Reform.

FiT CfD

- Long-term contracts will be the key mechanism for encouraging investment in low-carbon generation by providing greater long-term revenue certainty to investors. By stabilising revenues these long-term contracts, FiT CfDs, are intended to increase the rate of investment and lower the cost of capital, thereby reducing costs to consumers.
- The FiT CfD is a long-term financial contract (no power is traded thereunder) between a low-carbon generator and a central counterparty (not yet identified), under which payments are made by reference to the difference between a strike price specified in the contract and the value of an exogenous reference price. Further details can be found in the Commentary below and in Annex 1: Quick reference guide to the proposals.
- In the Government’s central scenario, the FiT CfD reduces the cost of the decarbonisation investment to 2030 by £2.5 billion compared to using the Premium Feed-in Tariff (**PFiT**) to deliver the same investment.
- Under high fossil fuel price scenarios the FiT CfD will scale back support and could eventually result in payments to the Government, reducing the risk of unnecessarily high returns being paid to generators as they might be under a PFiT. The ability to avoid excessive support is seen as a key advantage of the FiT CfD.
- To reflect the different commercial and operational attributes among different classes of generation, the Government will tailor the design of the FiT CfD for different generation types.

EPS

- An EPS regime applicable to new fossil fuel power stations will support the UK’s decarbonisation objectives.
- As set out in the Coalition Agreement, the EPS will help deliver the Government’s commitment to prevent the most carbon intensive (i.e. unabated coal) power stations from being built.
- It provides a regulatory backstop on the amount of emissions that a new fossil fuel power station can produce. In the longer term, it could be used to give a clear regulatory signal to reinforce the economic signals provided by the Electricity Market Reform package and existing policies.
- The EPS will initially be set at a level equivalent to 450g CO₂/kWh (at baseload) for all new fossil fuel plant, except Carbon Capture and Storage (**CCS**) demonstration plants. It will not be retrospective.
- The EPS will be subject to regular reviews as part of the process of three-yearly reports on decarbonisation under the Energy Act 2010.
- Any changes in the level of the EPS will not apply to plant previously consented under the framework for a specified period. Details of this “grandfathering” period will be determined following further engagement with stakeholders.

Renewables Roadmap

The UK Renewable Energy Roadmap was published at the same time as the White Paper and sets out a delivery roadmap for the deployment of renewable energy technologies to meet the target of 15% by 2020. This is further evidence of the Government accepting responsibility for the delivery of energy assets rather than leaving such delivery to market forces.

It focuses on particular technologies and sets out a central view for deployment of those technologies in 2020, although it is specifically stated that these central ranges do not represent technology specific targets or the level of the Government's ambition.

The eight specified technologies and the central view of deployment in 2020 are:

– Onshore wind	24-32 TWh
– Offshore wind	33-58 TWh
– Biomass electricity	32-50 TWh
– Marine energy	1 TWh
– Biomass heat (non-domestic)	36-50 TWh
– Air-source and ground-source heat pumps (non-domestic)	16-22 TWh
– Renewable energy in transport	Up to 48 TWh
– Others (including hydro, geothermal, solar and domestic heat)	14 TWh

The Roadmap is intended to establish a process of monitoring and evaluation to assess deployment and the development of the market. It is proposed that it should be updated on an annual basis to monitor progress and assess whether other technologies can make a bigger or cheaper contribution than is currently assumed.

Capacity Mechanism

- The Government believes that a Capacity Mechanism is required for the following reasons:
 - The UK faces increasing security of supply risks from around the end of this decade. This is due to two main factors: around a quarter of existing generation is closing; and a significant proportion of new generation is likely to be more intermittent and less flexible.
 - Modelling indicates that de-rated capacity margins will fall below 10% around the end of this decade and will significantly increase the risk of costly voltage reductions and blackouts. The reality of market failures may of course compound this.

- New non-generation measures such as demand side response (**DSR**), storage and new connections to other countries offer significant opportunities to improve security of supply and reduce the overall generating capacity that is needed. Market arrangements need to ensure that these approaches can play their part in enabling secure supplies for consumers.
- There are potential reforms to the current market (e.g. Ofgem’s contemplation of changes to cash out) which can help improve security of supply, but these are unlikely to be sufficient.
- No decision has, as yet, been taken on the type of Capacity Mechanism to be implemented. The Government is consulting on the type of Capacity Mechanism to be introduced and the White Paper presents two options in this regard:
 - a targeted mechanism, with a proposed model of a Strategic Reserve; or
 - a market-wide mechanism, in the form of a Capacity Market.
- The decision in relation to the type of Capacity Mechanism to be introduced is expected around the turn of the year, as this will need to be finalised well in advance of the legislative time-slot in the second session of Parliament starting next May.

Institutional Framework

- The Government recognises that putting in place a transparent, enduring, robust and credible institutional framework to deliver the Electricity Market Reform package is critical to ensuring investor confidence.
- Key considerations raised in the consultation responses include: accountability and governance; independence; the need for the contract counterparty to be creditworthy; securing the right skills and resources; and value for money for the consumer. The consultation responses have informed the criteria the Government will use to design the institutional framework.
- Several options for the delivery organisation(s) are being considered including a new public body, an existing public body or an existing private body. The delivery organisation would be likely to work at “arm’s length” from the Government to administer the contracts.
- The new institutional framework will enable the following key functions to be performed in delivering the FiT CfD and Capacity Mechanism:
 - setting the overall policy approach and objectives;
 - translating policy objectives into technical requirements;
 - delivery of the contracts;
 - data reconciliation and managing payments; and
 - monitoring compliance and enforcement.
- A decision on which organisation will be responsible for delivery of the contracts will be published around the turn of the year once the Capacity Mechanism design has been decided.

Transitional Arrangements

Generation already accredited at the introduction of the FiT CfD (expected April 2014) – will remain within the RO and will not have the option to switch.

Generation commissioning between the introduction of the FiT CfD and 31 March 2017 – will have a one-off choice between the RO and the FiT CfD. (Additional capacity of more than 5MW that is added during this period will also have the benefit of this choice in respect of that additional capacity. Additional capacity of less than 5MW will be able to opt for the FiT CfD unless it is eligible for the small-scale feed-in-tariff.)

RO will be closed to new generation on 31 March 2017 – thereafter new generation will only be eligible for the FiT CfD. (Additional capacity of more than 5MW that is added after 31 March 2017 will be eligible for the FiT CfD. Additional capacity of less than 5MW will be eligible for the FiT CfD unless it is eligible for the small-scale feed-in-tariff.)

The “vintaged” RO from 1 April 2017 will:

- be calculated on the basis of headroom (potentially with the underpinning of a fixed target) until 31 March 2027;
- be based on “Fixed ROC” (proposed as the buyout price plus 10% headroom) from 1 April 2027 to 31 March 2037; and
- likely grandfather technologies at the RO support level applicable on 31 March 2017.

There will be a **grace period** for accreditation in the RO for generation which was scheduled to complete by 31 March 2017, but is delayed by a delay in grid connection instigated by the transmission or distribution operator, or a delay in the planned installation of radar necessary to satisfy planning conditions for wind generation projects. However, generators benefiting from the grace period will remain subject to the 2037 end date of the RO and therefore would not receive the full 20 year support period.

Offshore wind generators with split phases will:

- be able to register all of the remaining turbines representing the consented capacity of the generating station under the RO on or before 31 March 2017, but the 20 year support period will begin from the point of registration; and
- be able to participate in the FiT CfD for any remaining turbines that will not be registered under the RO by 31 March 2017 (with metered output readings being pro-rated as necessary).

Non-Fossil Fuel Obligation (NFFO) generation developed between the introduction of the FiT CfD and 31 March 2017 will be required to accredit under whichever scheme provides the best return for the Non-Fossil Purchasing Agency (NFPA), and if developed after 31 March 2017 will be eligible to participate in the FiT CfD (subject to sterilisation on the same basis as sterilisation from the RO).

Ofgem Review

- The Government published the high-level conclusions of the Ofgem Review on 19 May 2011. A full report is published alongside the White Paper. The report emphasises the Government’s continuing commitment to a framework of independent economic regulation for the energy sector and to Ofgem as the independent regulator.
- The Ofgem Review concluded that Ofgem’s statutory duties are appropriate and reflect the issues that the regulator should consider in making its decisions. However, the current framework of broadly-scoped duties and weak guidance is very unlikely to be able to support a predictable regulatory environment that is coherent with Government strategy, as the energy sector goes through a period of substantial change over the coming decades.
- A new statutory ‘Strategy and Policy Statement’ will be established. This document will:
 - set out the Government’s policy goals for the gas and electricity markets;
 - describe the roles and responsibilities of Government, Ofgem and other relevant bodies; and
 - define policy outcomes that Government considers Ofgem to have a particularly important role in delivering.
- Ofgem will continue to operate independently in deciding how to regulate the energy markets, but will be required to demonstrate how its decisions support delivery of the policy outcomes defined by Government.

Ofgem – New entrants and liquidity

- There are a number of barriers to entry and growth in the UK’s electricity generation and supply markets.
- Significant improvements in wholesale market liquidity are essential, not only to ensure a competitive market and promote long-term security of supply, but also to enable Electricity Market Reform to deliver efficient and cost-effective reforms. Ofgem is working to address liquidity issues through its Retail Market Review.
- Independent generators, including new entrants, need viable routes to market that meet their commercial needs and allow them to achieve the relevant reference prices to enable them to benefit from the FiT CfD.
- The Government intends to work closely with Ofgem to ensure that, taken together, Electricity Market Reform and the liquidity reforms reduce barriers to entry and deliver the necessary improvements in wholesale market liquidity. The Government will introduce further reforms where the structural barriers to market entry are not addressed through the actions taken by Ofgem.

Future networks and system flexibility

- The changes driven by Electricity Market Reform will have a significant impact on future networks and the way supply and demand is balanced. The future electricity network will need to be able to support the new low-carbon generation promoted by the Electricity Market Reform package.
- Changes to the network and growth in DSR, storage and interconnection will need to accompany the transformation of electricity generation that is at the core of Electricity Market Reform.
- The Government will set out its electricity systems policy, focusing on challenges around balancing and system flexibility, in summer 2012. If the FiT CfDs expose the Government to compensation for change of policy, it is incentivised to have a developed and stable policy before they are implemented.

Transition

- Electricity Market Reform will mean significant changes to the electricity system. Maintaining stable market conditions and industry confidence throughout this period of change is a key objective.
- To secure this objective, the Government supports the principle of no retrospective changes for all low-carbon investments.
- The White Paper sets out detailed proposals to provide new renewable generators with a period of choice between the existing RO and the new FiT CfD. Please see the box entitled “Transitional Arrangements” above.

Commentary

Change in Law, Grandfathering and Vintaging

The White Paper positively bristles with comforting words in relation to protecting the basis on which investors enter the new UK low-carbon electricity generating market. This is a critical part of creating the confidence necessary to allow investors to deploy capital on the scale and within the timing required to meet the Government's objectives. Some examples follow:

- Grandfathering² is promised in relation to the new low-carbon policy incentives. This is particularly relevant as it is clear that there will be periodic evaluations (and therefore possible changes in approach), according to a planning cycle clearly laid out in advance, of the strategy in the light of possible changes in costs, technological developments and new challenges to the energy system. The first of these assessments will be in 2016 and will also consider whether the new contract structure for low-carbon is delivering all the benefits, especially for consumers, and improvements over the existing Renewables Obligation, that are expected.
- Grandfathering protection is also promised to projects operating under the RO. All technologies currently grandfathered will remain grandfathered in the vintaged RO. The Government's preferred option is support, for any technology that is not covered by the current grandfathering policy, will be grandfathered at the support level applicable on 31 March 2017. This will remove the need for further banding reviews, reducing a costly administration burden, and is intended to provide industry with increased revenue certainty.
- Grandfathering in relation to the EPS is also promised. This is important because while the FiT CfD and CPF are intended to be the primary drivers for decarbonisation and the use of CCS, and it is important to provide sufficient clarity for investors, the Government recognises that it might not be appropriate indefinitely to limit its ability to tighten the EPS for plant thereafter consented under this framework. A tightening of the EPS may be appropriate, for example once the technical and financial viability of CCS is better understood. The first review of the EPS will be as part of the Government's Energy Act report at the end of 2015 in relation to progress on decarbonisation.
- Whilst a final decision has not yet been taken, the Government is minded to grandfather in relation to the EPS on the basis of a clear and predetermined period (i.e. the duration for which a plant will not be subject to possible changes in the level of EPS). EPS grandfathering will proceed on the following basis:
 - Any changes in the level of the EPS will not apply to plant consented under the framework for a specified period. The consultation documentation suggested that this could be for the economic life although it is clear from the White Paper that this has not been finally adopted (nor has it been rejected).

2. i.e. supporting the principle of no retrospective effect of changes.

- Plants which are consented before the legislation will not be subject to the EPS requirements. However, to prevent lock-in to high-carbon generation, plants which undergo significant life extensions or upgrades will fall under the EPS regime.
- But, importantly and so as not to act as a disincentive to improve environmental performance of existing power stations, upgrades to comply with EU law will not trigger the bringing of a plant within the EPS, nor will retrofit of CCS or conversion works undertaken to facilitate the use of biomass.

The availability of a grandfathered EPS for new plant will itself be subject to review as part of the 2015 Energy Act reporting referred to above.

It is clear that the detail of the grandfathering for EPS has not yet been fully worked out. However, the Government has committed to work with stakeholders to produce this detail. This will need to be completed in good time so as not to hinder the legislative progress.

The concept of vintaging³ from the consultation has also been carried forward into the White Paper. This is important in preserving the economic value of ROCs after the shift to the new support arrangements. This vintaging has been maintained to recognise the concerns expressed in relation to change in law clauses in PPAs and adverse change clauses in loan documentation. However, the vintaging is not absolute. After 2027 (i.e. for the final 10 years of the ROC scheme), the value of a ROC will be predetermined (and no longer determined as it is now by the market based on the headroom) and the Government will presumably buy these directly from generators with the RO itself falling away (a **Fixed ROC**).

Only projects which accredited after 1st April 2007 need therefore worry about Fixed ROCs and, in almost all cases, only those projects which have not yet entered operation will need to worry about implications for their financing and/or PPAs. This should therefore be manageable for project developers and financiers.

At the launch of the White Paper, Chris Huhne emphasised that the FiT CfD would be the vehicle under which the Government assumed policy risk. This would be on a legally enforceable basis and would be something that could be “taken to a court”. This will clearly be attractive to investors concerned about recent prejudicial changes to non-contractual renewable support mechanisms in other countries.

As we have previously highlighted, the constitutional principle that no Parliament can bind a future Parliament makes this easy to promise orally but a difficult promise to make legally enforceable without the FiT CfD being subject to an independent governing law and dispute resolution outside of the English courts (i.e. similar to the approach taken in many emerging market PPAs). We do not believe that it was Chris Huhne’s intention to imply that an approach similar to an emerging market PPA would be adopted.

3. Vintaging the RO system means that it will no longer be open to accreditation for new stations from 1 April 2017. The closure of the RO to new stations will create a closed pool of capacity which will decrease over time as the end date for the RO of 31 March 2037 approaches.

Instead, in our view, the debate is more likely to be around which aspects of the change in law protection structure from UK PFI and/or market based PPAs/tolling agreements for UK power deals (thermal/renewables) will be included in the FiT CfD. In our view, the clear reference to using the FiT CfD to remove “policy risk” rather than “change in law risk” indicates that the scope of protection will be along the lines of that in a typical renewables PPA and limited to future changes to the laws, rules and regulations relating to the UK power market. Protection will not be given for changes in other laws (for example health & safety or non-discriminatory changes in tax)⁴. We wonder whether investors in nuclear plant may look to expand this protection as the body of law and regulation that applies to them is much broader than that applicable to an investor in a wind farm. Now that the fundamental differences between baseload and intermittent low-carbon generation have been recognised in the structure of the FiT CfD and the likely different investor return hurdle rates between types of technology have been acknowledged, it does not seem to us to be inappropriate also to recognise the differences in law and regulation applicable to different technologies.

Of course, in embracing these differences, the Secretary of State must be mindful of the content of his Written Ministerial Statement on energy policy of 18 October 2010. The following points from this statement are germane:

- The Government’s policy is that there will be no public subsidy for new nuclear power.
- This means that there will be no levy, direct payment or market support for electricity supplied or capacity provided by a private sector new nuclear operator, unless similar support is also made available more widely to other types of generation.
- New nuclear power will, for example, benefit from any general measures that are in place or may be introduced as part of wider reform of the electricity market to encourage investment in low-carbon generation.
- The Government does not rule out action by the Government to take on financial risks or liabilities for which it is appropriately compensated or for which there are corresponding benefits.
- Arguably, few economic activities can be absolutely free of subsidy in some respect, given the wide ranging scope of state activity and the need to abide by international treaty obligations. The Government’s “no subsidy” policy will therefore need to be applied having regard to proportionality and materiality.

In terms of mechanics, while one could see the strike price under the FiT CfD being adjusted on a “no pain, no gain” basis to reflect the increases/decreases in economic benefit, consideration may also need to be given to reductions in availability/output as a result of a policy change.

It is also interesting to note that the investors in projects under the RO scheme and, possibly, investors in thermal plant for which the EPS is relevant may not receive such contractual protection and must

4. This is an interesting difference to thermal power PPAs/tolling agreements where changes in health & safety rules can result in changes to the cashflows. This is accepted by offtakers because general changes in law can usually be assumed to feed through into the market price for power.

rely on the remedies (if any) at law in the event of a future change in policy that causes them loss. It will be interesting to see whether this difference holds back the required investment in future gas plant. If it does not, one could question whether the contractual protection offered under the FiT CfDs was in fact necessary at all.

FiT CfD

The Government has confirmed that it will introduce a long-term FiT CfD with the intent of stabilising revenues and reducing risks, so that investment in all forms of low-carbon generation is supported. The preference for a FiT CfD over a PFiT was based on the FiT CfD's ability to promote static and dynamic efficiency through allocating risk efficiently between investors, consumers and the Government. This is achieved by allocating risk to those parties best able to manage or control it. For example, the FiT CfD insulates investors in low-carbon generation from fossil fuel price risk, which they are unable to control, but maintains exposure to a fluctuating wholesale price for those technologies that are able to respond to this signal in their operational decisions. There is also a coherence between the FiT CfD and the CPF.

The cost to the consumer is reduced by lower costs of capital and a scaling back of volume of support (and potentially payments to the Government) in high fossil fuel price scenarios due to the “two-way” nature of the FiT CfD (for most generators).

The Government has recognised that intermittent generation (e.g. wind farms) has different characteristics to baseload (e.g. nuclear with limited load-following), and has indicated it will vary key features of the FiT CfD to accommodate these. (See Annex 1: Quick reference guide to the proposals – “Feed in Tariff” for further details.) Further proposals as to the treatment of the category of flexible plant (which could include a “one-way” CfD) will be produced around the turn of the year.

A key difference between intermittent and baseload FiT CfDs will be the applicable reference price. For baseload it will be a year-ahead baseload price. There are a number of efficiency reasons for using forward prices. The indicated reference prices would be the average of the Summer and Winter EFA Baseload contracts (as there is more liquidity in these), averaged over each day in the year prior to the year of delivery. This implies that to be physically hedged a baseload low-carbon generator would either need to sell an appropriate proportion of their power forward on each trading day in the year prior to delivery, to hedge the reference price in the market (and purchase back power for planned and unplanned outages), or enter into a PPA linked to the reference price. The Government is concerned that there are presently low levels of liquidity in forward market prices, and notes that any Mandatory Auctions which may be required by Ofgem (see Allen & Overy's bulletin of March 2011 on Ofgem's Liquidity Proposals: www.allenoverly.com/UK-Electricity-Market-Reform) could provide a transparent and robust reference price for the baseload FiT CfD. Consideration of these aspects in Ofgem's proposals will therefore be important.

For an intermittent generator the reference price is to be a day-ahead price, reflecting the difficulty for such a generator in forecasting output over longer periods. A “baseload” price seems to be preferred to a more granular one, due to the volatility of the intra-day market. The Government suggests that basis risk from intra-day variations of output by an intermittent generator can be managed by the generator without upward pressure on the strike price, because their output variations are (at present) generally positively correlated with prices. However, for an independent generator, and absent an aggregator or other offtake contract, this seems to imply a much greater trading capability (and participation in the BSC and associated arrangements – including credit cover) than is presently typical. This is notwithstanding the Government’s intent that the reference price chosen should be one such that a generator “*reasonably can be expected to possess the required operational and commercial capabilities*” substantially to capture such price.

There is also a wider concern about the ability of an intermittent low-carbon generator to capture the reference price, if there is insufficient liquidity in the relevant indices (as it is not clear that a generator could otherwise hedge the reference price by sales on the relevant markets). The Government’s view is that current volumes traded on the day-ahead market are sufficient to absorb relatively small quantities of FiT CfD supported power from 2014.

The White Paper emphasises the importance of Ofgem’s liquidity review (see Allen & Overy’s bulletin of March 2011 on Ofgem’s Liquidity Proposals: www.allenoverly.com/UK-Electricity-Market-Reform) and states that it is “*essential that there is sufficient liquidity across the whole market to offer a robust reference price and the means for independent generators of all sizes to manage their balancing and offtake risks*”.

The Government considers that the market price indices used to provide the reference price should be the best representation of the relevant market price at the time of allocation of the FiT CfD. They should be reflective of market fundamentals and not prone to manipulation. It is also envisaged that FiT CfDs will have a mechanism for review of the source of the reference price index. This allows for the evolution of market and indices, but the drafting of this provision and the identity and independence of any body appointed to carry out such revisions, will need to be scrutinised very carefully. Further, matching provisions would be needed in any market facing arrangements for the underlying power, which seems likely to be challenging.

In relation to setting the strike price under the FiT CfD, while the Government would like to see a competitive process, it recognises that conditions for this do not exist in the current market. Tariffs for generation that will be commissioned prior to 2020 are most likely to be set through an administrative process drawing on the experience of ROC banding. They will therefore presumably be technology specific, with an auction or tender process for price-setting for subsequent generation on a technology specific basis from 2017. There is the prospect of technology-neutral auction further in the future – though subject to the principal of continued grandfathering with no retrospective change.

Ongoing Issues

The Government is aiming to legislate for the key elements of the EMR package through primary legislation in the second Parliamentary session, which starts in May 2012. The intention is for legislation to reach the statute books by spring 2013 so that the first low-carbon projects can be supported under the legislative framework in 2014. This is a highly ambitious target, most notably due to the scope of the outstanding issues which are still under consideration and may need to be determined prior to then (and integrated with Ofgem's ongoing work – notably on liquidity and cash-out), including:

- *Structure of the Capacity Mechanism* – While Government has outlined the two options of Strategic Reserve and a Market-Wide Mechanism, the Government still has to decide on the policy to adopt which will involve further consultation (responses to be received by October 2011). The Government is aiming to publish its policy by the end of 2011 as part of the technical update to the EMR.
- *Decision on the institutional framework for delivery of FiT CfD and the Capacity Mechanism* – The delivery organisations could be a new Executive Agency or Non-Departmental Public Body, an existing public body, a new public corporation and/or a private sector body. The Government has identified that there may be one or more delivery organisations depending on the chosen Capacity Mechanism. In addition, there may be synergies between delivering the FiT CfD and elements of delivering the Capacity Mechanism. The precise remit, appropriate governance and planning cycle of the chosen body will be published by the end of 2011 and form part of the technical update to the EMR.
- *Refinement of the FiT CfD structure* – Although Government is proposing to introduce the FiT CfD, there are still elements within the structure which are to be refined, for instance (i) the likelihood and impact of negative prices in the future and the case for taking action to either limit or prevent negative prices from occurring; (ii) the volume of the contract; (iii) further clarity on the extent to which a metered output FiT CfD would genuinely distort the operating decisions of nuclear plant; (iv) the extent to which a two-way metered output FiT CfD will affect the allocation risks to CCS plants and the likelihood of portfolio generators using fossil fuel generators in order to meet obligations under a firm volume FiT CfD; (v) on which index to base the reference price; (vi) how best to support CCS demonstration projects and in particular if CCS will be commercially deployed as baseload or intermediate load/flexible generation and how this affects the type of FiT CfD offered (and the case for providing a link to fuel costs); (vii) the settlement periods; (viii) the contract duration; (ix) the enforcement of contract obligations; (x) the terms for credit and collateral; (xi) indexation; and (xii) payment mechanisms.
- *RO Transition* – While the Government has formulated policy in principle on the transition from RO to FiT CfD, there are still some areas which are to be refined. In particular, (i) how grace periods will be exercised; (ii) the treatment of unregistered turbines; (iii) grandfathering of certain technologies such as bioliquids and co-firing, CHP uplift and energy crops uplift; and (iv) how small and micro generators which exceed 5MW will be supported.
- *Assessment as to whether DECC should take further steps to improve support and incentives for the efficient use of electricity* – The Government has said that DECC will undertake work and produce proposals on arrangements for flexible generation by the end of 2011. The scope of these proposals could affect the EMR legislative package.
- *Development of an Electricity Systems Policy* – Government has identified that a new policy is required to address balancing and system flexibility, clarifying the role of Demand Side Response, storage and interconnection issues and the development of a Smarter Grid. Government has said that this will be developed by summer 2012. The development of this policy will be linked to any primary legislation and so they will have to be considered together.
- *Introduction of a new statutory "Strategy and Policy Statement"* – The Government has identified following the Ofgem Review the need for a new policy statement to set out the Government's policy goals for the gas and electricity markets, describe roles and responsibilities of the Government, Ofgem and other relevant bodies and define policy outcomes. While the Government has said in the White Paper that this will be introduced as soon as Parliamentary time allows, there may be overlap with the EMR package and the two will be linked.
- *EPS regime* – While the Government has chosen an EPS proposal following the Consultation, the Government has still to decide how to structure EPS so as not to disincentivise investment in CHP. In addition, the definition of fossil fuels for the purposes of EPS and exploring exceptions to the EPS to maintain security of supply are still under consideration.
- *Impact on EIIs* – The Government has said that it will introduce a package of measures to reduce the impact of government policy on electricity intensive industries (EIIs) whose international competitiveness is affected by energy policy through examining international practice. This is targeted for Autumn 2012.
- *Interface with regimes in Scotland, Wales and Northern Ireland* – Discussions are to be had with the Scottish and Welsh governments on how to apply any Capacity Mechanisms in their jurisdictions. The Government still has to consider how EMR will work together with the Single Electricity Market (SEM) and in particular, whether FiT CfDs can work in Northern Ireland.
- *Consistency with EU policies* – The Government still has to ensure that any legislation is consistent with the larger EU market integration process and in particular how state aid rules and EU financial instrument legislation could impact the EMR. The Government also has to consider the role of low-carbon generators from outside the UK.

The Government's impact assessment states that *“An expectation would be that the starting price at least improves upon the current RO levels (for renewables) by the expected efficiency gain of the new system”*. Presumably the improvement is from the generator's perspective, given (at least for renewables) the RO will initially run in parallel.

For both baseload and intermittent generators there will be inflation indexation of the strike price. (See further “Programme Delivery” below.)

The volume under the FiT CfD for an intermittent generator would be the metered output (or at least the declaration to the System Operator if they are constrained off). However, for baseload generators the option of a firm volume is also under consideration.

An interesting feature of the FiT CfD being based on the metered output of a generator (at least for intermittent generators) is that an intermittent generator (which does not have a long-term offtake) might rationally sell electricity for a negative price up to the level of the difference payment it would receive. The Government raises the prospect that as the market becomes increasingly segmented with intermittent and inflexible baseload plant, it may become necessary to constrain wind or for the Government to take action to limit negative prices to prevent distortion occurring (and of course the FiT CfDs will expose the Government to wholesale price risk in such scenarios). We can also envisage increased constraints on wind power for grid balancing in this scenario, though it is indicated that a generator would not be prejudiced under the FiT CfD in these circumstances.

It is important to note that the FiT CfD proposals are subject to the final design of any Capacity Mechanism. The interactions between the FiT CfD and the Capacity Mechanism are potentially complex. In particular the Government is considering including an element of paying for capacity within the FiT CfD. The finalisation of the Capacity Mechanism is therefore a key element of the overall timetable.

The Government believes that the awards of FiT CfDs should be as early in the development cycle as practically possible (to provide certainty ahead of large investments), but include an obligation (backed by penalties and with security such as bank guarantees being required) to build within a defined timeframe. While it seems right not to grant a free option to a generator (at least while the allocation process imposes constraints) accommodating this timeline within the constraints of achieving connections and raising finance seems to give rise to a number of challenges for independent generators (and potentially utility balance sheets) see further “Programme Delivery” below.

Where the FiT CfD is two-way, the developer/generator may be required to make payments to the counterparty. The stability of the counterparty is obviously paramount and therefore credit terms, including requirements for security and creditworthiness of the developer are envisaged. It is, however, fundamentally important that these arrangements do not become a barrier to entry for independent generators.

On a more positive note, it seems it is envisaged that the FiT CfD would generally be settled monthly (subject to the detail of calculation of the reference price, which may require a reconciliation mechanic). This would be a welcome improvement on the working capital issues currently associated with the RO.

For CCS demonstration projects the Government is assessing, amongst other things, the feasibility of support through a form of FiT CfD. Demonstration projects are likely to be less reliable and predictable, and therefore would be subject to greater revenue risk under an output-based FiT CfD. Accordingly the Government is contemplating a fixed payment under the FiT CfD as part of the support package for CCS demonstration projects (presumably as a supplement to the support already set out in the 2011 Budget).

Offshore wind generators with split phases will be able to participate in the FiT CfD for any remaining turbines which are not registered under the RO by the end of the transition period (see box “Transitional Arrangements” above). However, it is envisaged that this will be accomplished through a pro-rating of metered output readings, which would seem likely to be a concern for debt financing of turbines financed on the basis of the RO which share the meter.

Availability of PPAs

In our previous briefings we have highlighted that low-carbon investments which are to be project financed or not owned by an integrated utility may still require long-term PPAs with creditworthy entities so as to provide:

- A route to market for the power (with increased certainty as to price capture);
- Imbalance risk mitigation to the generator; and
- Change in law risk mitigation to the generator.

Assuming for the time being that the EMR Impact Assessment is correct and that construction equity for new build nuclear will only come from utilities, the question of whether PPAs are still required is restricted to wind farm developments not owned by utilities. It is unclear to us whether the Government is assuming that PPAs will still be required.

On the one hand, the White Paper and the EMR Impact Assessment talk about PPAs noting:

“Power Purchase Agreements, under which generators currently forfeit some of the value of the electricity in order to be insulated against risk, including price risk, should become cheaper for generators in the future, making the FiT CfD a more efficient support instrument. This cannot be quantified due to a lack of available data.”

“...The terms of the PPA can differ, reflecting how much risk remains with the generator and how much is borne by the offtaker; the generator pays the offtaker to take on risk.”

The argument set out in this section suggests that given that the FiT CfD decreases revenue risk for the generator, the terms of the PPA should improve in the generator's favour, leaving him with more value and hence lower requirements for support, resulting in a saving for consumers."

However, the EMR Impact Assessment also contains statements that could be taken to suggest that intermittent generators may be expected to trade on an exchange or through members of the London Energy Brokers Association:

"There are not many products in the market at the moment which allow a generator to hedge basis risk between the exchange prices and the LEBA index so the generator may need to be able to access all markets. A generator may deem this risk to be small enough not to impact their hedging process (and given market efficiency to average out over time)."

"The proposed approach uses a day-ahead baseload measure for the MRP. Although wind output is variable, there are systematic variations over hours of the day (and months of the year) that impact the value of its output. We recognise the basis risk created in the difference between the "flat" (time-weighted average) baseload price and the shape an intermittent generator will actually produce. If the generator sold flat power at an average of the forecast it would need to buy back power for periods where output was lower than the average and vice versa. However, evidence suggests that on average a wind generator in the UK produces more power during the day than at night. This positively correlates with demand and therefore intraday prices. The generator could, on average, be expected to beat the average day-ahead baseload price by selling more peaks at a higher price and selling fewer (or buying back) off-peaks at a lower price rather than meeting the time-weighted average reference price. This effect could be expected to be reflected in lower strike prices required by the developer."

Producing a regime under which PPAs are not required to access sufficient investment at an affordable price would clearly be the ideal as it would open the market up to more independent generators and would reduce the strike price required by these generators. Given that the principal perceived benefit of the reforms, for WACC purposes, is an increase in available debt gearing, it would be unfortunate if this increase in gearing was not achievable or was only achievable at higher strike prices because of the availability, or terms, of PPAs.

Assuming that change in law risk is acceptably dealt with in the FiT CfD (see above), the remaining issues to be dealt with to remove the need for a PPA seem to us to be imbalance risk and price capture certainty.

The Government recognises two principal routes to market for independent generators – selling directly in the index markets on power exchanges, and selling through a PPA where offtake and balancing risk is transferred. The FiT CfD is intended to facilitate generators trading in the market and the Government believes a more liquid market may encourage aggregation services.

We believe that project financed wind farms in particular might find it difficult to demonstrate a robust long-term hedge of the reference price and the transfer of imbalance risk (particularly in the light of the proposed Significant Code Review (**SCR**) of cash out and the Government's belief, stated in the White Paper, that cash out/imbalance prices may at times be too low; not fully reflecting the costs of balancing the system), absent a PPA. If proved correct this is likely to have implications for strike prices that will be required, but note that the Government is committed to take action if routes to market for independent generators are inadequate.

Price capture certainty may be something that lenders and financial investors become comfortable with over time. However, there seems to us to be a risk that the implications of the reforms on the volatility of the relevant markets may mean that in some way in the future. In addition, with the continuing discussions in relation to a SCR to sharpen up cash out, it is not clear to us that project finance lenders or financial investors will be overly keen on accepting imbalance risk even on an intra-day basis.

Capacity Mechanism

The White Paper provides for further consultation in relation to the structure of the Capacity Mechanism to be introduced. It is important to remember that the proposals in relation to the design of the FiT CfD are subject to finalisation of the Capacity Mechanism structure.

This finalisation is therefore a critical path item to concluding any discussions with the European Commission and completing the draft legislation in time for the UK legislative process.

It will be interesting to see how the Capacity Mechanism interfaces (in priority) with the capacity to be the subject of Short-Term Operating Reserve (**STOR**) contracts.

EPS

There are various matters relating to the EPS that remain to be determined in consultation with interested parties. These are highlighted in the box above entitled Ongoing Issues. Perhaps the most interesting aspect of the EPS is its apparent upgrading from a regulatory backstop that was not really required (given the CCS requirements for new coal plant) to an additional tool that can be deployed in the future to push toward increased decarbonisation.

Whilst some grandfathering protection is available (see above) the possibility that the EPS could tighten in the future may act as an incentive on investors to bring forward their investments in gas plant rather than to wait and see what develops. In this regard, exempting CCS retrofit from the upgrade

exception to grandfathering is helpful. Finalising the Capacity Mechanism would also help in these considerations, given the role that flexible gas plant will play as the level of installed intermittent generation grows.

Institutional arrangements

There has been further consideration in relation to the counterparty to the FiT CfDs though a number of important issues are not yet resolved. It appears that this entity will be at “arm’s length” from the Government (though it could be an existing public body, a new public body or an existing private body). A decision on which organisation will be responsible for delivery of the contracts (either as counterparty or overseer) is expected to be made around the turn of the year. This raises a number of important issues, including independence, accountability, expertise and creditworthiness.

In relation to the last of these, the Government recognises that this is important and suggests a number of mechanisms:

- A consumer levy (though obviously this will have a negative impact on the benefit to consumers of EMR);
- A mechanism to insure against counterparty insolvency (such as a special administration regime or mutualisation fund);
- Credit support for generators; or
- Some other means to recover costs and meet the liabilities under the FiT CfD contract.

While the prospect of a consumer levy is raised in this context, there remains very little visibility on the intended funding of the FiT CfD counterparty. If there is not a hypothecated levy, there may be a requirement for some backstop from the Government. This may be particularly acute if the organisation responsible for the delivery of the FiT CfDs is not in fact the counterparty to them (see above). The credit of the FiT CfD counterparty will be fundamental to debt finance. It also underpins the contractual approach to removing policy risk, since any contractual protection relies upon the solvency of the counterparty.

Programme delivery

It is crucial that the output from EMR is a programme of investment in offshore wind and new build nuclear power if the government is to meet its targets. The White Paper contains no mention of how this programme approach will be required or incentivised.

Given the construction and development risks associated with offshore wind and nuclear it is generally assumed that large utilities will be the providers of construction phase equity. There are many reasons for this, including the availability of EPC contracts, the length of development phase and the availability of skills and knowledge. However, as is recognised in the White Paper, we cannot expect the large utilities to do it all. If this is the case, the large utilities will need to be incentivised to act as “architect engineers”, refinancing substantial parts of their equity investments once the relevant projects reach stable operations. This raises a number of interesting questions for the structure of the FiT CfD:

- Do utilities sufficiently value index linked equity returns? There is no suggestion that these are required from significant IWPP programmes in the Middle East. If not, should an option to switch to index linking have been retained as part of an “incentive to refinance and reinvest” arrangement in the FiT CfD?
- Index linking the strike price where there is no obvious inflation exposure on costs is traditionally a financing tool to increase the gearing of the project company. This is not necessarily appropriate in all situations. It seems to us to be possible that the intention is to create an index linked equity product to attract institutional investors into the equity of relevant projects which are assumed not to carry project finance. If this is the case, some refinancing gain protection in relation to debt refinancings for these projects may need to be considered. As an example, the assumptions behind the design of the FiT CfD should be protected in the FiT CfD to avoid windfall gains.
- Can the strike price be structured to have in-built incentives to refinance and reinvest?
- Given the lack of competitive tension around setting the strike price under an administrative process, is a general refinancing gain provision required to be included in the FiT CfD?

Green Investment Bank

The Green Investment Bank (**GIB**) has, in some quarters, been characterised as a solution searching for its problem. The White Paper does not provide much new insight here stating that:

“The GIB will offer a range of financial solutions to accelerate private sector investment in the UK’s transition to a green economy. The GIB will need to review the market need and potential impact of different interventions.”

Given the conclusions in the Impact Assessments and the CEPA report that the effect of the FiT CfD in relation to debt funding is most likely to be an increase in gearing (rather than a material reduction in pricing) for offshore wind projects⁵ it does not seem that GIB is anticipated to have a significant role in

5. There being little pricing or gearing benefit to be had for onshore wind and nuclear which is assumed to be balance sheet financed.

relation to current mature technologies such as onshore wind, offshore wind and nuclear. It is therefore welcome that there is an acknowledgment in the White Paper of the quasi venture-capital role that GIB could play:

“The Green Investment Bank (GIB) will help to fund the scaling-up and deployment of green technology and clean energy projects.”

Clarification of roles for other technologies and system flexibility

One of the criticisms of the earlier consultation documentation was that it did not recognise the role that gas plant, demand side response, storage technology and interconnections could play in the future electricity market. The White Paper goes a long way towards correcting this, for example:

- The further consultation in relation to the structure of the capacity market potentially allows DSR, storage and interconnection to play a greater role in security of supply. This may also have significant affordability benefits if it means that levels of installed capacity may be reduced.
- The EPS has been initially set at a level that does not prevent the development of the new gas plant the UK needs to be built to maintain sufficient capacity given the increased volume of intermittent generation on the system.
- Ofgem is consulting on a proposed regulated (as opposed to merchant) interconnector investment regime. There are also a number of initiatives to co-ordinate interconnection to maximise its benefits by ensuring the effective exploitation of renewable resources and effective trading. However, questions of subsidised low-carbon electricity not being consumed in UK may be contentious – presently ROCs are not awarded in respect of exported power.
- The White Paper also makes it very clear that CCS continues to play an important part in the Government’s thinking, and the Government is addressing integration of CCS into EMR. The Government’s vision of the electricity system in 2030 includes the wide deployment of CCS on existing and new fossil fuel plants. It is possible that a further class of FiT CfD for flexible plants could be tailored to this. CCS demonstration plant will be exempt from EPS.

Ofgem

In various places in the White Paper the Government reserves for itself the right to take additional legislative action if the actions taken by Ofgem are inconsistent with its goals. Examples include:

- The Government’s commitment to take action to improve routes to market if necessary, notwithstanding Ofgem’s liquidity reforms;
- The overtly directional attitude to Ofgem’s approach to cash out;

- The Government’s commitment to act where necessary to introduce reforms where the structural barriers to market entry are not addressed through the actions taken by Ofgem; or
- Ofgem is to be required to demonstrate how its decisions support delivery of the policy outcomes defined by the Government.

In addition, the final report on the Ofgem Review makes it clear that the challenges facing the UK electricity sector are such that clearer definition of the respective roles of the Government and Ofgem are required. The Government will establish a “Strategy and Policy Statement” which will set out the Government’s policy goals for the gas and electricity markets, describe the roles and responsibilities of the Government, Ofgem and other relevant bodies and define policy outcomes that the Government considers Ofgem to have a particularly important role in delivering.

Ofgem will be required to set out how it plans to deliver its contribution to each policy outcome and how it will monitor progress. It will also be expected to report annually on progress, outlining and justifying decisions and, where progress is not on track, explaining why and what mitigating action might be needed.

This will allow the Government to take responsibility for setting and communicating strategic direction, allow Ofgem independent regulatory decisions to form a logical and coherent part of this broader strategic policy framework and where possible avoid ad hoc interventions.

This is, we feel, a logical consequence of the fundamental shift away from market-led procurement of energy assets to policy-led procurement of energy assets inherent in the market reform proposals and the need for a tightly orchestrated approach so that actual and potential investors receive a coherent message from public bodies involved in the UK energy market.

EU

The Government has acknowledged that State Aid clearance will be required from the European Commission in relation to the reform proposals. The White Paper notes that the Government is working with the European Commission and other EU stakeholders to ensure that the reform package is consistent with, and complementary to, developing EU energy policy. Fundamentally, national measures to encourage nationally produced energy and national security of supply at the expense of imports are not obviously consistent with a wider integrated European energy market, yet countries cannot rely on the EU to put in place incentive arrangements that reflect the needs for low-carbon energy sovereignty.

We would anticipate that the following topics would be the subject of detailed discussions between the Government and the European Commission:

- Is the high level of state involvement in the UK electricity market consistent with EU law and EU energy policy?

- Do the proposed reforms favour incumbents over new entrants to such an extent that they are at odds with the goals of EU market liberalisation?
- With the steady growth of interconnection to Continental Europe the UK electricity market (traditionally grouped with France and Ireland as the FUI region) is becoming slowly but surely integrated into the larger CWE region. This brings with it wider changes, not only on how wholesale prices are determined through market coupling but also on how balancing and intra-day markets are designed and operated. It is not clear the extent to which these important developments have been taken into account in formulating the White Paper.
- Will the projected rise in wholesale prices in the UK markets, bolstered by the new interventionist mechanisms, in fact lead to a surge in imports – at the expense of the very low carbon investment that this complex set of proposals is designed to achieve? In this regard, the failure of the original NFFO (as introduced in the 1989 Electricity Act), and well before electricity trade with Continental Europe had developed to the current levels, should not be forgotten. As a result of the intervention of the European Commission at that time, to bring the NFFO regime into line with the EU rules on state aid and free movement of goods, a considerable portion of the NFFO levy went to supporting the production of French nuclear power, as opposed to investment in UK renewable generation.
- Can support mechanisms ever be directed only to nationally produced electricity? Although state aid to support national energy objectives may well be deemed compatible with the EU state aid rules, the Commission cannot give a green light to any measure which discriminates against imports.
- The Commission has a preference for electricity to be sold through power-exchanges on a short term basis to maximise flexible and variable generation and new market entry. Will the explanations (see the Impact Assessments) as to why the proposed reforms could increase the volumes of power traded on power markets be sufficient to persuade the European Commission that they should be acceptable?
- The Capacity Mechanism is intended to provide for security of supply. The ‘Third Package’ measures, like their predecessors, allow some scope for intervention to guarantee security of supply but this must be limited to 15% of national consumption and can only be claimed once – i.e. not every single measure can shelter under this provision. Furthermore the measure must be both necessary and proportionate – no other means of securing the objective should be available. As already mentioned, with increased interconnection and integration into the wider CWE region, more economic and flexible mechanisms to provide back-up supply could be available. This will need to be taken into account in structuring the Capacity Mechanism. State aid clearance cannot therefore be meaningfully considered until the structure of the Capacity Mechanism is settled.

Key contacts

Key contacts

If you require further information on any of the matters raised in this document, please contact any of the following:



Gareth Price

Global Co-Head of Energy
Tel +44 (0)20 3088 2740
gareth.price@allenovery.com



Sheila Connell

Partner – Energy
Tel +44 (0)20 3088 3303
sheila.connell@allenovery.com



Chris Andrew

Partner – Energy
Tel +44 (0)20 3088 2684
chris.andrew@allenovery.com



Mark Walker

Partner – Energy
Tel +44 (0)20 3088 3316
mark.walker@allenovery.com



Mark Friend

Partner – Competition and Regulatory
Tel +44 (0)20 3088 2440
mark.friend@allenovery.com



Prof Dr Leigh Hancher

is of Counsel in the Amsterdam Office
Tel +31 20 674 1122
leigh.hancher@allenovery.com

ANNEX 1:
*Quick reference
guide to the
proposals*

Carbon Price Support

Revised Proposal

The Government will remove the exemptions from the Climate Change Levy (**CCL**) for fossil fuels used to generate electricity and tax these at rates to take account of their average carbon content (which will be different to the main Climate Change Levy rates). The Government also proposes to reduce the amount of fuel duty that can be reclaimed when oil is used to generate electricity.

The changes will apply from 1 April 2013, but anti-avoidance provisions have effect from 23 March 2011.

Rates from 1 April 2013 (equivalent to £4.94/tCO₂) and indicative rates from 1 April 2014 (equivalent to £7.28/tCO₂) and 1 April 2015 (equivalent to £9.86/tCO₂) were published in the 2011 Budget.

Future rates will be announced at subsequent Budgets depending on the prevailing carbon price. These rates will be set two years in advance to allow generators time to plan hedging strategies, with indicative rates published for two further years.

Since the initial consultation, the Government has proposed a change to the treatment of Combined Heat and Power (**CHP**) to give CHP a reduction on the carbon price support levy, subject to State Aid approval. However, it has also proposed to remove from CHP the benefit of Levy Exemption Certificates (**LECs**) for electricity supplied indirectly to a consumer.

The Government is proposing a partial relief for fossil fuels used in CCS plants, subject to State Aid approval. This would be a plant specific relief. If a power station is capturing and storing a quarter of the CO₂ it produces, then it would be given relief on a quarter of its input fuel.

The obligation to register and account for the tax will be upon the supplier of the fossil fuel.

Generators may need to complete an adapted form of PP11 certificate.

Generators importing fossil fuels from outside the EU would have the choice of either accounting for CCL at the time of importation or registering for CCL and accounting for the levy through their CCL return.

Objectives

To encourage additional investment in low-carbon generation by providing greater support and certainty to the carbon price.

To 'top-up' for electricity generation the effective carbon price resulting from EU ETS. The Government is targeting a price for carbon (inclusive of EU ETS) of £30/tCO₂ in 2020 rising to £70/tCO₂ in 2030 (real 2009 prices).

To require less public expenditure as funded by tax system.

To align with the 'polluter pays' principle.

Outstanding Issues

Development of the detailed design of, and obtain State Aid approval for, reliefs for CCS and CHP.

Monitoring the interaction for Northern Ireland generators with the island of Ireland Single Electricity Market.

The Government will meet energy companies and oil and gas suppliers to discuss concerns about who should be the taxpayer to try to devise workable arrangements that keep business burdens to a minimum while complying with the requirements of European law.

“Feed in Tariff” (FiT)

Revised Proposal

Feed in Tariff Contracts for Difference for low-carbon generators calculated as the difference between the strike price and the reference price. Alternative of a Premium FiT has been rejected.

Different contract structures will be used for different generation types (see table below):

- Intermittent (eg wind, wave, solar)
- Baseload (eg nuclear, some biomass, some CCS)
- Flexible (eg biomass, potentially CCS) – to be confirmed.

The proposed contract structures are subject to the final design of any capacity mechanism.

Built-in mechanism for revising the reference price to ensure it remains the best representation of market prices.

FiT CfD expected to be available from April 2014.

Generation not already accredited when the FiT CfD is introduced will have a choice between FiT CfD and RO until 31 March 2017.

Government is to conduct a review assessment in 2016, but is committed to grandfathering and no retrospective change.

Aim to move from administrative price discovery processes to more competitive forms of price discovery such as auctions or tenders when the wider conditions in the market will support their successful deployment, envisaging technology-specific auctions for contracts towards the end of the decade and greater competition between technologies towards and into the early 2020s.

Objectives

To achieve cost-efficient low-carbon investment.

To retain normal commercial incentives to sell electricity in a way that best reflects the plant's operational mode.

To mitigate the potential for windfall profits/excessive rents and the risk of gaming and contract manipulation.

To avoid arrangements which favour a particular corporate structure.

Outstanding Issues

If Ofgem's measures are not enough to sufficiently improve wholesale electricity market liquidity, Government will consider what further action is necessary.

Availability of power purchase agreements to renewable generators will be kept under review and the Government will take action to improve routes to market should that prove to be necessary.

Interaction with Capacity Mechanism – the Government will consider including an element of payment for capacity within the FiT CfD.

The Government will give further consideration to the likelihood and impact of negative prices in the future and examine the case for taking action to either limit or prevent negative prices from occurring (e.g. by paying intermittent generators on the basis of availability).

For intermittent generators, which market index is the best representation of day-ahead prices.

For baseload generators, whether to use a metered output or firm volume contract (including further analysis of the extent to which a metered output FiT CfD would distort the despatch decisions of, in particular, nuclear plant, and the likelihood of portfolio generators using fossil fuel generation in order to meet obligations under a firm volume FiT CfD).

For baseload generators, whether to use average of seasonal market indexes or average of clearing prices of Ofgem's proposed Mandatory Auctions.

For flexible generators, whether to have a FiT CfD for flexible plant.

For CCS demonstration projects, whether to have a FiT CfD making up part of the support package for CCS demonstration projects.

For CCS commercially deployed, the type of FiT CfD to be offered and the case for providing a link to fuel costs.

Detailed design of the FiT CfD including length of contract, frequency of payments, conditions of contract, terms for credit and collateral, indexation mechanisms, payment mechanisms.

Generation Type	Contract Form	Contract Volume	Reference Price	Strike Price
Intermittent	Two-way FiT CfD ¹	Metered Output (Although if constrained by System Operator paid on availability)	Day-ahead market (Government considers this to be relatively liquid) Not averaged over a longer period	Administrative Process/Auction Annual inflation indexation Government will consider including an element of payment for capacity within the FiT CfD.
Baseload	Two-way FiT CfD ²	Metered Output or Firm Volume – to be confirmed	Year-ahead market (Government considers that may need to average the summer and winter seasonal markets to achieve sufficient liquidity or use the clearing prices of Ofgem's Mandatory Auctions) Averaged price.	Administrative Process/Auction Annual inflation indexation Government minded not to include fuel indexation for biomass. To be confirmed for CCS. Government will consider including an element of payment for capacity within the FiT CfD.
Flexible – to be confirmed (may not be needed until 2020s)	One-way FiT CfD (generator to pay central body if reference price exceeds strike) Fixed payment (by central body to generator) to cover fixed costs – to be confirmed	Firm Volume	Spot or prompt markets	Based on variable cost of generation

1. See White Paper July 2011, Box 5, figure 5.

2. See White Paper July 2011, Box 5, figure 4.

Emission Performance Standard (EPS)

Revised Proposal

Annual regulatory limit on carbon dioxide emitted by individual new plant.

Not to apply EPS retrospectively to existing plant unless it undergoes significant life extension or upgrade. (Government intends that plants which are consented before the EPS is legislated for will not be subject to the mechanism.)

The EPS will initially be set at a level equivalent to 450g CO₂/kWh (at baseload) for all new fossil fuel plant. (Government assesses this as meaning that typical coal-fired power stations subject to this requirement must limit their emissions by 40% compared to what they could otherwise emit.)

There will be an exemption for CCS demonstration plants and plants benefiting from European funding for commercial-scale CCS projects.

There will be an exemption for plant of less than 50MW declared net capacity.

The EPS will be subject to regular reviews, as part of the process of three-yearly reports on decarbonisation under the Energy Act 2010.

The level of EPS in place at the point that a power station is consented (at least for plants consented by the end of 2015) remains the level which is relevant to that plant for a pre-defined specified period. (This is more restrictive than the previous concept of the economic life of that power station.) Details of this 'grandfathering' period will be determined following further engagement with stakeholders.

EPS is also to be applied to existing plant which undergoes a significant life extension or upgrade such as upgrading boilers to supercritical status, but excluding upgrades to comply with EU law, retrofit CCS and conversion works to facilitate the use of biomass.

Whilst the EPS would be technology neutral amongst fossil fuel plant, it is intended the level will presently only affect unabated coal plant.

There will be exceptions for supply emergencies, to allow coal plant under tightly defined circumstances to turn off their CCS equipment at times of exceptional demand. Alternatively those power stations could be allowed to operate at a higher output (or load factor) than would be the case if they were always subject to EPS constraints.

Emissions from biomass fuel will be 'zero rated' when calculating plant carbon dioxide emissions under the EPS.

Objectives

Prevent unabated new build coal plant whilst allowing for demonstration of all CCS technologies.

Complement the regulatory carbon capture ready requirements.

Outstanding Issues

The most appropriate duration for the ‘grandfathering’ period.

Further clarification of what is meant by ‘significant life extensions or upgrades’.

Shaping the scope of the additional flexibility to deviate from the EPS to maintain energy security.

How to implement exemptions to the EPS for CCS demonstration plant.

Government will look to avoid structuring the EPS in a way which could act as a disincentive to investment in CHP and will explore this further with stakeholders. Some consultation respondents have argued that to be treated fairly, fuel used to produce useful heat should be subtracted before the calculations are made.

The levels are intended to be set at present so as not to apply to new gas plants although the Government raises the prospect of future tightening.

Capacity Mechanism

Revised Proposal

Further analysis will be carried out on the design of the Capacity Mechanism.

There are two main alternatives under consideration:

- Target capacity mechanism with a proposed model of Strategic Reserve. This would involve:
 - despatch of the strategic reserve only when the price rises above a specified despatch price;
 - the despatch price would be set above the highest long-run marginal cost in the electricity market but below the theoretical value to the GB economy of preventing blackouts – value of lost load (VoLL) – therefore constituting an effective cap on market prices;
 - the despatch price would have a defined change process to avoid it being subject to short-term pressures, but would be subject to a period review process;
 - strategic reserve would be included in the cash out calculation thus allowing cash out prices to rise to correctly reflect the cost of using strategic reserve;
 - criteria would be designed to allow flexible capacity, including demand side response;
 - level of capacity required determined each year taking into account the projections for the next four years;
 - length of contracts may differ taking into account procurement requirements and whether construction is required.
- Market-wide mechanism in the form of a Capacity Market including possibly a Reserve Market involving financial call options where the provider receives an option premium and is obliged to pay if the market price is above the strike price or if the energy is not available.

The Capacity Mechanism is intended to be in addition to the existing STOR market.

The proposed Capacity Mechanism would apply across Great Britain only because the single electricity market for the island of Ireland already uses a capacity mechanism.

The structure of the Capacity Mechanism would be put in place as early as possible and a decision on whether to trigger the mechanism would be made annually.

Objectives

To ensure security of supply in a period during which de-rated capacity margins are expected to fall below 5% in some years. This involves three different linked challenges:

- diversification of supply (not to be over-reliant on one energy source);
- operational security (to ensure that moment to moment supply matches demand); and
- resource adequacy (sufficient capacity to meet demand eg in winter anticyclone low wind conditions).

The other measures are not expected to be sufficient to address all of the security of supply concerns identified.

Outstanding Issues

Which form of Capacity Mechanism will be adopted.

Interaction with FiT CfD. Whether generation in receipt of a FiT CfD should be prohibited from participating in the capacity market.

Whether plant can participate in both the capacity market and in STOR or whether this would lead to double payments or gaming.

Interaction with vertical integration.

The market into which the capacity is sold eg for Strategic Reserve this could be sold into the Balancing Mechanism or the day-ahead market.

What penalties to impose if the promised capacity is not available when required.

Counterparty risk.

How to address capacity outside GB and the risk of unavailability of interconnection capacity during scarcity situations.

Interaction with EU Third Package.

ANNEX 2:
*Particular impacts
on generation types*

Type	Electricity Market Reform	Carbon Price Support	Other
Oil	See general discussion above.	Reduction in ability to reclaim fuel duty. Rates from 1 April 2013 and indicative rates from 1 April 2014 and 1 April 2015 were published in the 2011 Budget.	A new offshore licensing round will be launched in 2012 to help maximise the economic recovery of remaining indigenous oil reserves, subject to the outcome of the Strategic Environmental Assessment.
Gas	See general discussion above. Government indicates that the Emission Performance Standard, although currently set at a level that only affects coal, could be tightened in the future (respecting the principle of grandfathering) to a level which could affect future gas plants.	Introduction of charge on gas used to produce electricity. Rates from 1 April 2013 and indicative rates from 1 April 2014 and 1 April 2015 were published in the 2011 Budget. Anti-avoidance provisions introduced with effect from 23 March 2011.	Under its Significant Code Review Ofgem is considering the case for enhanced supply obligations on gas market participants (which could be implemented via legislation or licences). A new offshore licensing round will be launched in 2012 to help maximise the economic recovery of remaining indigenous gas reserves, subject to the outcome of the Strategic Environmental Assessment.
Coal	Emission Performance Standard, designed to prevent new build of unabated coal fired plant, set at an annual limit equivalent to 450g CO ₂ /kWh (at baseload), with an exception for plant in the UK CCS Demonstration programme or benefiting from European funding for commercial scale CCS. Emission Performance Standard will also apply to existing plant which undergoes a significant life extension or upgrade (excluding upgrades undertaken to comply with EU law, the retrofit of CCS or works undertaken to facilitate the use of biomass). Government will work with stakeholders to define what 'significant life extension or upgrade' should mean in practice. Government intends to 'zero rate' the emissions from biomass fuel when calculating plant carbon dioxide emissions.	Introduction of charge on coal used to produce electricity. Rates from 1 April 2013 and indicative rates from 1 April 2014 and 1 April 2015 were published in the 2011 Budget. Anti-avoidance provisions introduced with effect from 23 March 2011.	
CCS	Emission Performance Standard will have specific exemptions for plant forming part of the UK's CCS Demonstration Programme or benefiting from European funding for commercial-scale CCS projects. CCS is classified as a low-carbon technology along with nuclear and renewables so may be eligible for a FiT CfD. For CCS demonstration projects, the Government is assessing the possibility of greater certainty of payment in the FiT CfD making up part of the support package. For commercial CCS (post demonstration), it is not clear yet if it is to be baseload or flexible generation and this may affect the type of FiT CfD to be offered. The Government is also considering the case for providing a link to fuel costs. Government is to build additional flexibilities into the Emissions Performance Standard (over and above the flexibility of the annual limit) to enable coal power stations to temporarily turn off their CCS equipment without being penalised under the Emissions Performance Standard in order to supply additional electricity in times of need.	Government is proposing a partial relief for fossil fuels used in CCS plants to reflect the proportion of carbon dioxide abated, subject to State Aid approval. CCS specific tax reliefs will be introduced in the 2012 Finance Bill, followed by secondary legislation later in 2012.	The 2011 Budget announced that the Government will not proceed with the CCS levy, but will instead fund CCS Demonstration from general taxation.
Biomass	Government intends to 'zero-rate' the emissions from biomass fuel when calculating carbon dioxide emissions for the Emissions Performance Standard. Currently the Government is minded not to link the two-way FiT CfD strike price to fuel costs for biomass.		Sustainability Criteria will need to be met from April 2013. In relation to Scotland, grandfathering for biomass technologies is subject to a separate review of support for large-scale electricity only biomass. Government is developing a UK Bioenergy Strategy for publication by the end of 2011, including taking account of Indirect Land Use Change.
CHP	Government will look to avoid structuring the EPS in a way which could act as a disincentive to investment in CHP. Some consultation respondents have argued that to be treated fairly, fuel used to produce useful heat should be subtracted before the calculations are made.	Fossil fuels burnt in CHP stations will be subject to tax at the relevant carbon support rates regardless of the CHP Quality Assurance Rating. However, it is proposed to give CHP a reduction on the carbon price support levy subject to State Aid approval. CHP specific tax reliefs will be introduced in the 2012 Finance Bill, followed by secondary legislation later in 2012.	RO Banding Review, which is due to publish a consultation in summer 2011 will clarify the relative roles of the RO and the Renewable Heat Incentive in supporting CHP. It is proposed to remove from CHP the benefit of Levy Exemption Certificates (LECs) for electricity supplied indirectly to a consumer.

Type	Electricity Market Reform	Carbon Price Support	Other
Waste	<p>As part of the ‘vintaging’ of the RO, the Government is considering whether bioliquids produced from wastes and advanced conversion technologies should be grandfathered (in addition to the grandfathering of Anaerobic Digestion, Advanced Conversion Technologies and Energy from Waste already announced in the Government Response to Biomass Grandfathering) and this will be considered as part of the Banding Review, which is due to publish a consultation in summer 2011.</p>		<p>Waste, landfill gas or sewage gas will not need to meet sustainability criteria and will not need to report on sustainability.</p> <p>There will be a consultation by autumn 2012 on measures to divert waste from landfill, including possible landfill restrictions for waste wood.</p> <p>Government published its Anaerobic Digestion Strategy in June 2011. The Environment Agency will amend the relevant standard rules to enable more anaerobic digestion plant to benefit from quicker cheaper permitting.</p> <p>Renewable Heat Incentive payments will be available for biomethane injection into the gas grid and generation of heat from biogas produced from all wastes through anaerobic digestion.</p> <p>The Health and Safety Executive is considering whether maximum permissible levels of oxygen and contaminant matter in the gas grid can be increased. DECC is considering the possibility of providing a gas transporter licence exemption for those who produce gas onshore.</p>
Renewables Generally	<p>RO will remain open for projects accredited by 31 March 2017. There will be some limited grace periods for generation which was due to accredit on or before 31 March 2017, but was delayed through no fault of its own, by either a change in grid connection date instigated by the transmission or distribution operator, or a delay in the agreed installation of radar, but this generation will remain subject to the 31 March 2037 end date for the RO.</p> <p>Generation not already accredited when FiT CfD is introduced, which is expected to be April 2014 (including additional capacity greater than 5MW), will have a choice between RO and FiT CfD until 31 March 2017.</p> <p>Additional capacity of less than 5MW, which is, at the same time, eligible for the small-scale Feed in Tariff will not be eligible for a FiT CfD.</p> <p>RO will be ‘vintaged’ from 1 April 2017 but the obligation will continue to be calculated on a headroom basis (potentially with the fixed target underpin) until 1 April 2027 then switching to a Fixed ROC price for the final 10 years of RO support until 31 March 2037.</p> <p>Risk of greater exposure to higher cash out prices for intermittent generation.</p>		<p>RO Banding Review brought forward by 12 months. Government to announce banding scenario for consultation in summer 2011 and confirm Government response in autumn 2011. Changes to take effect from 1 April 2013 for most technologies and 2014 for offshore wind.</p> <p>A consultation will be launched on a new National Planning Policy Framework to consolidate existing planning policy (including for projects below 50MW) into a single document, with a new presumption in favour of sustainable development. A ‘planning guarantee’ is proposed that it will take no longer than 12 months to reach a final decision on planning applications including any associated appeal. (This is in addition to the National Policy Statements and the new fast track procedure for nationally significant energy projects.)</p> <p>Government is committed to allowing communities that host renewable energy projects to keep the additional business rates they generate and this is being taken forward through the Local Government Resource Review.</p> <p>Government will work to implement radar mitigation programmes and begin to look for solutions to wind farm related aviation navigation and communications services issues through a new Memorandum of Understanding with industry.</p>
Offshore Wind	<p>There will be a separate type of FiT CfD for intermittent generation which will be a two-way FiT CfD paid on metered output, except that if the output is constrained by the System Operator for grid balancing reasons the payment would be based on availability. The reference price for the FiT CfD will be calculated according to the day ahead market.</p> <p>Generating stations accredited under the RO will be able to register some or all of their remaining unregistered turbines that constitute the consented capacity of the generating station, under the RO by 31 March 2017 in order to receive support under the RO mechanism for those turbines. The 20 year support period will begin from the date of registration.</p> <p>Generating stations accredited under the RO will be able to sign a FiT CfD for any turbines that are not registered under the RO on 1 April 2017.</p>		<p>Introduction of phased support from 1 April 2011. Generators are able to register up to five phases each for up to 20 years’ support (subject to a minimum of 20% of proposed total installed capacity being in first phase). However under EMR, no new offshore wind turbines will be able to register under the RO after 31 March 2017.</p> <p>RO Banding Review to take effect from 1 April 2014.</p> <p>Government will address concerns about the ability to terminate Crown Estate leases for oil or gas development by formalising its existing policy that termination should not occur without appropriate compensation. It will also work with offshore oil and gas industries to set out guidance on how to resolve conflicts before the end of 2011.</p> <p>It is likely that offshore wind will be a strong candidate for support from the Green Investment Bank.</p> <p>DECC is assessing the implications of Marine Conservation Zones and the Marine Strategy Framework Directive and will publish a report on the Offshore Strategic Environmental Assessment in summer 2011.</p>

Type	Electricity Market Reform	Carbon Price Support	Other
Nuclear	<p>See general discussion above.</p> <p>There will be a separate type of FfT CfD for baseload generation which will be a two-way FfT CfD. The Government is still considering whether this should be paid on metered output or on a firm volume. The reference price for the FfT CfD will be calculated according to the year-ahead market.</p>		
Interconnectors/ “Supergrid”	<p>The Government’s preference remains a UK wide FfT CfD but will work further with the Northern Ireland Executive to determine how this will operate in Northern Ireland and the Capacity Mechanism will not apply to Northern Ireland.</p> <p>The Government intends to provide for two-way trade in renewable energy with other Member States and will consider whether there may be circumstances in which it is appropriate to allow other forms of low-carbon generation, developed outside the UK, to be supported by the EMR reforms.</p> <p>The Government envisages that the Capacity Mechanism could allow non-GB generation (for example a generator based in France) to participate.</p>	<p>There will be no change to the tax treatment of imported electricity in line with EU excise and energy tax directives. Electricity exported from the UK will continue to be exempt from CCL, but fossil fuels used to generate electricity which is then exported will be liable to tax.</p> <p>Likely to result in increased incentive for importing electricity and reduced incentive to export electricity.</p> <p>The Government will monitor the impact of the Carbon Price Support in Northern Ireland, recognising the interaction with the island of Ireland Single Energy Market.</p>	<p>Ofgem is developing a new regulated approach to interconnector investment.</p> <p>The ISLES project is assessing the feasibility of creating an offshore interconnected transmission network.</p>



ANNEX 3:

Proposed timetable

Initiative	Current Position	Next Steps	Proposed Method of Implementation	Expected Implementation Date
Carbon Price Support Mechanism	Main provisions introduced in 2011 Finance Bill.	Further measures to be included in 2012 Finance Bill. Government plans to publish for consultation further primary legislation in autumn 2011 and secondary legislation in 2012.	2011 Finance Bill and 2012 Finance Bill.	1 April 2013.
Electricity Market Reform (EMR)	White paper issued in July 2011.	Some matters stated to be subject to further development, in particular the Capacity Mechanism. The further Capacity Mechanism consultation runs until 4 October 2011 and the Government will make its decision on the chosen Capacity Mechanism around the turn of the year.	Establish new powers in Primary Legislation from 2012 onwards. State Aid approvals to be checked.	By 2013 legislation in place. FIT CfDs available from April 2014.
Liquidity Review	Ofgem issued initial proposals 21 March 2011 and confirmed intention to proceed 22 June 2011.	Ofgem to further develop proposals.		
Impact of EMR on RO	See EMR above	See EMR above.	See EMR above.	Accreditation under RO to be available until 31 March 2017. RO to continue until 2037 but from 1 April 2017 will not be open to new accreditation and will be 'vintaged'.
Banding Review		Announce banding scenario for consultation Summer 2011 and confirm Government response in Autumn 2011.		New bands brought into force 1 April 2013 but April 2014 for offshore wind.
Green Investment Bank	Update on design of GIB issued 24 May 2011 Government committed in 2011 Budget to fund the GIB with £3bn over the period to 2015.	Obtain approval from European Commission. Then enshrine GIB in legislation.		The GIB will evolve over three phases: – Incubation from 2012 to State Aid approval. Government will make direct state-aid compliant investments until these investments can be transferred to the GIB. – Establishment as a standalone institution following approval. – Full borrowing powers from 2015, subject to public sector debt falling as a percentage of GDP.

