

# ALLEN & OVERY



## UK Electricity Market Reform: *The Energy Bill*

December 2012



# Introduction

On 29th November 2012, the Energy Bill was finally introduced to Parliament. The Energy Bill contains the framework for the Electricity Market Reform (**EMR**) which is intended to underpin more than £110 billion of investment in the UK electricity sector before 2020 in order to set the UK on the pathway of a decarbonised economy which is energy secure and affordable (the **EMR Goals**). The Energy Bill also provides for:

- The introduction of a Strategy and Policy Statement to improve regulatory certainty by ensuring that the Government and Ofgem are aligned at a strategic level;
- Creating the Office of Nuclear Regulation;
- Enabling the sale of the Government Pipeline and Storage System; and
- A correction to current law to ensure that offshore wind generators constructing transmission assets do not breach the law when testing/commissioning such assets. It applies to the period before a completion notice is given and for a further period of up to eighteen months until a sale of such assets to an OFTO.

Shortly after the Energy Bill was introduced to Parliament, the Chancellor made his Autumn Statement, alongside which was published the Gas Generation Strategy. This makes it clear that the possible contribution that gas generation, shale gas exploration and production and gas storage can play in meeting the EMR Goals will not be ignored in the new intervened market. In effect, gas is recognised as a “shoulder” fuel that can play an important role in meeting the 2050 decarbonisation target without compromising energy security and affordability. In truth, this is not new; it is simply a question of the extent of that role. It is clear, however, that discussions around the possible carbon trajectories outlined in the Gas Generation Strategy and their potential impact on the 4th Carbon Budget and any statutory electricity sector decarbonisation target have not been had without political blood being spilled on the carpet.

The run up to the introduction of the Energy Bill and the publication of the Gas Generation Strategy has been dominated not by consistent, confident and explicit political support and explanation for EMR and its goals but by infighting within the coalition which forms the UK Government. For example, it is clear that the UK Treasury has imposed brakes on the ambition of DECC through the Levy Control Framework in the name of affordability/competitiveness but, perhaps more importantly, that the difficult questions of when and how to stop intervening and return to procurement of energy generation infrastructure driven by market pricing signals are not yet fully answered (nor, perhaps, understood).

Notwithstanding this, we are confident that the Energy Bill as now amended and the policy (including the Gas Generation Strategy) that lies behind it mean that our baseline question

*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?*

can now be answered with a confident yes. That is not to say that the new regime is fully complete, but with the improvements made to the Energy Bill from the draft published in May it is clear that DECC is listening to industry and adapting its approach to reflect to industry's legitimate concerns.

Our confidence relies on an assumption that this approach will continue so as to ensure that the significant detail of the outstanding matters relating to EMR is completed in a consistent and pro-investment way.

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1. Shortly before publication, the Secretary of State for Energy and Climate Change issued a Written Ministerial Statement in which he opened the way for a resumption of shale exploration activities provided that all consents are in place and a number of new conditions are met. This statement can be found at: [http://www.decc.gov.uk/en/content/cms/news/wms\\_shale/wms\\_shale.aspx](http://www.decc.gov.uk/en/content/cms/news/wms_shale/wms_shale.aspx)

Therefore, perhaps the biggest risk to EMR's ability to achieve the EMR Goals lies with the UK's politicians. The Energy Bill is an enabling piece of legislation (it is framework legislation with some 65 specific provisions for future delegated legislation) which will be implemented through detailed EMR Regulation and the application of UK energy policy (though some important duties are laid down in the primary legislation). However, even the EMR Regulations are in some respects anticipated to be more enabling than mandatory.

The commercially material developments since the draft Energy Bill published in May are therefore expressed as much through the elements of energy policy implicit in the CfD Operational Framework and the other documents published together with the Energy Bill, as they are in the text of the Energy Bill itself.

Delivery of energy infrastructure which will provide the decarbonised and secure future, anticipated in DECC's 2050 pathway, in an affordable way requires clear focus and a long term commitment to a diverse fuel mix. This focus and commitment will only be evident to investors and the relevant global supply chains through the statements and actions of UK politicians; simply enacting the Energy Bill and the EMR Regulations is not enough. They therefore now have it in their hands to determine whether the EMR Goals will be met. Given the importance of energy security to practical sovereignty and foreign policy and energy affordability to industrial policy and household wealth, it is perhaps surprising that this has not already been evident.

If there is a continued inability to separate energy policy from daily political life then, in our view, there will be a growing argument that a formal separation (perhaps modelled on the Bank of England and its inflation target) is required to ensure delivery on the EMR Goals. Such a separation would of course require some prioritisation within the "trilemma" of decarbonisation, cost and security of supply, rather than the bland acknowledgment introduced into the current Energy Bill that the Secretary of State must have regard to these three worthy, yet potentially inconsistent, goals.

We hope that this briefing, while larger than ideal, will, in fact, save you time and effort compared to reading through all of the relevant literature published with the Energy Bill. Notwithstanding this aspiration, significant detail is contained in the documentation outside of the Energy Bill that we would be delighted to discuss with you. Please do get in touch with any of us or your usual Allen & Overy contact if there are further matters you wish to discuss.

Should you wish to consult the underlying documents, the Energy Bill and the other documents published with it (together with our earlier briefings) are available at: <http://www.allenoverly.com/UK-Electricity-Market-Reform>

# Overall Shape of EMR

The shape of EMR remains as we have previously reported it, resting on the three pillars of:

- A ***Contract for Difference (CfD)*** to mitigate wholesale electricity price risk for investors in relevant low carbon technologies.
- A ***Capacity Market (CM)*** to seek to assure energy security where the low carbon technology to be deployed has intermittent characteristics (eg offshore wind) or inflexible characteristics with increased single loss load risk (eg nuclear) or capacity margins are otherwise further eroded. The CM is also the primary market intervention that will support the construction of new build gas generation in the UK.
- ***Institutional arrangements*** which complement the CfD and CM and are constructed with the EMR Goals in mind.

These three pillars are supported by

- A ***carbon price floor*** – a UK-specific tax based on underpinning the EU-ETS carbon price to a level that is projected to be consistent with achieving the EMR Goals. It is interesting to note that in previous iterations of the EMR package, the carbon price floor has been seen as a primary pillar of EMR. Perhaps its downgrading to a supporting role reflects a growing importance of affordability for industrial policy reasons, relative to energy security and decarbonisation, in the political debate. The Government has said it will adjust the 4th Carbon Budget if the UK's domestic commitments place it on a different emissions trajectory than the EU. There is clearly tension between that approach and a carbon price floor with the deliberate potential to elevate domestic emissions commitments above EU ones.
- An ***Emissions Performance Standard (EPS)*** – a regulatory backstop on the development of fossil fuelled power stations and which effectively prevents the development of new build coal fired power stations which are not equipped with carbon capture and storage (CCS) technology. Plants commissioned under the proposed statutory level of 450g/kWh will be grandfathered through 2044 giving certainty to developers of those plant for all or at least the majority of their design life. This grandfathering will, of course, limit flexibility for the introduction of a decarbonisation target for the 2030s if significant gas capacity is installed in the UK in the next few years.
- Measures to encourage ***Electricity Demand Reduction (EDR)*** – this may be partially achieved through the CM (the Energy Bill equates providing electricity and reducing demand for electricity as providing capacity) but smoothing peak demand will become increasingly important where the heat and transportation sectors become increasingly electrified as part of the 2050 decarbonisation pathway. The consultation document advises that Levy funding for any market-wide financial incentives for EDR would need to be traded-off against support for other measures within the Levy Control Framework (including CfDs). While logical (or at least consistent with a capped budget), this emphasises that the policy choices implicit in CfD allocations and encouraging EDR are administrative policy determinations rather than market-driven processes.
- Measures to support ***liquidity and market access*** (including to long term power purchase agreements) for independent generators.
- ***Transitional arrangements*** intended to minimise any investment hiatus.



# Changes since May 2012

The Energy Bill and the policy that supports it (expressed through the CfD operational framework and the other documents that accompany the Energy Bill) include a number of key improvements from the May draft bill and accompanying documentation that respond to the observations that we and other industry participants made. These changes include:

## Contract for Differences - General

- The CfD will be a private law contract with a dispute resolution mechanic ultimately based on arbitration. The Government will have a power to direct the CfD Counterparty to enter into a CfD.
- There will be a single counterparty (the **CfD Counterparty**) to the CfD funded by a supplier obligation. Whilst the documentation states that this will be a not-for-profit limited liability company owned by Government, the Energy Bill includes a power to designate a public authority (widely defined) and indeed any type of company (not just a limited liability company) incorporated under the Companies Act to this role. There is no statutory requirement for Government ownership. There is also a de-designation right and, seemingly, the ability to have more than one CfD Counterparty at any time.
- The Energy Bill imposes a duty to ensure that its regulations provide for licensed suppliers to make payments to a CfD Counterparty for the purpose of enabling it to make payments under the CfDs. Certainty of funding for the CfD Counterparty is obviously fundamental to its creditworthiness. Given that cash is fungible it is perhaps odd that such a duty does not arise in relation to the other costs of the CfD counterparty. A CfD Counterparty will not be guaranteed by the Government.
- A CfD will have a 15 year duration for renewables projects. For CCS, generally, it seems that 15 years will also apply, but there will be different rules for the Commercialisation Programme projects. The duration of support for nuclear is yet to be determined.
- The terms of the CfD will be largely standardised across all technologies. But, a degree of difference is to be expected between intermittent and baseload plants, as is the need for other variations for early stage CCS projects. A draft heads of terms for a renewables CfD is published alongside the Energy Bill and a form of final contract is envisaged for July 2013.
- In exceptional cases, the Secretary of State may allocate CfDs to individual projects to which the generic terms might not be suited. Such CfDs will have to be individually negotiated.
- The renewables strike price(s) for 2014/5 – 2018/19 are to be published in 2013 as part of the first EMR delivery plan.
- The reference price for renewables will be the hourly, day ahead “GB Zone” price. In a negative wholesale price environment payments will be capped at the value of the strike price. The developer therefore takes the risk of negative prices.
- The reference price for a baseload CfD has not yet been determined but the position outlined above on negative prices will remain. Negative prices are not considered to be a particularly relevant commercial consideration given the likely price sources for the baseload reference price.

- The strike price will be fully or partially linked to CPI with inflation adjustments on an annual basis.
- Generators will be required to post collateral if the reference price is forecast to exceed the strike price. There will also be collateral obligations on the suppliers to back up their obligations to the CfD Counterparty, although the detail of this is being consulted upon.
- The CfD Counterparty is insolvency-remote by virtue of its payment obligations to generators being limited to the extent that it has received enough money from suppliers pursuant to the supplier obligation to discharge them. This risk will be borne proportionally by all generators party to the CfDs. In this regard, it is not clear how this would work if there is more than one CfD Counterparty designated at any particular time or if an unfunded cost outside of the CfD costs passed through under the supplier obligation were to arise (e.g. unfunded operational costs or, if relevant, costs of acquiring GB Certificates and/or NI Certificates). There are also important mitigants for generators against the risk of payment delay. Further, the potential for losses to be smeared across all suppliers is an important protection for generators but is unlikely to be popular with suppliers.
- There will be “a degree” of protection against “certain” changes in law and regulation.
- Energy Intensive Industries will be excluded from the cost of the CfDs (the scope of and eligibility for this are yet to be determined), subject to State Aid clearance. (We note that a scheme of compensation for carbon price floor/EU-ETS costs was announced by the Chancellor last year.) In deviating from a proportionate cost socialisation model based on consumption to one which exempts targeted consumers we see strong parallels with a tax code which provides for incentives to behave in a particular way. “Decarbonisation should not mean deindustrialisation”, but removing the carbon price signal from those (indirectly) responsible for the greatest carbon emissions is a further move away from market principles in EMR.

This link between the cost of EMR and its impact on industrial Britain (and consumer bills more widely) is no surprise to those who have watched the emerging involvement of HM Treasury in the EMR process (this dates back, at least insofar as it became publicly observable) to the split out of the carbon price floor from DECC’s remit two years ago. The starkest interface is, of course, the Treasury’s Levy Control Framework (**LCF**). DECC have announced that the amount of support available under the LCF for low carbon electricity investment (including any EDR) up to 2020 has been agreed. The 2020 figure (in 2012 prices) is £7.6 billion per annum (compared with a figure of £2.35 billion for the current year – which does not include nuclear generation). While the long-term nature of this announcement (well beyond the normal LCF cycle) is welcome and represents an overdue appreciation of the need for long-term visibility in bringing forth the necessary investment in low-carbon generation, there are also clear statements from DECC that allocation of CfDs would have to be rationed to preserve the budgetary envelope. In evidence to the Energy and Climate Change Parliamentary Select Committee (the **ECC Committee**), the Energy Secretary suggested that statutory decarbonisation obligations would prevail over the LCF. DECC has not directly responded to the ECC Committee’s request for Treasury confirmation of this adaptability, but the Gas Generation Strategy describes the position as “setting a sustainable and affordable cap on the Levy Control Framework out to 2020” and there is now a willingness to alter the decarbonisation requirements of the 4th Carbon Budget. As noted above, it is important that going forward the various arms of Government now start to speak with one voice.

## Contract for Differences - Allocation and strike price

- A new two-stage process enables CfDs to be allocated at an earlier stage so that the certainty necessary to raise funding and commit to development costs is in place at a more appropriate time. For example, wind farms will be able to apply once they have secured planning permission and accepted a network connection offer. As a consequence, the CfD will therefore contain sensible provisions that seek to mitigate “bed-blocking” and to incentivise development by the anticipated date.
- The “bed-blocking” and scheduling mitigants will include:
  - (i) a requirement for the developer to prove significant financial commitment to move the project towards construction within a set period of being awarded a CfD. This could be a minimum spend requirement or evidence that a final investment decision that cannot readily be reversed has been taken (it seems that Government is minded to opt for a minimum spend requirement and this is reflected in the draft heads of terms for the renewable CfD);
  - (ii) a requirement that the developer must satisfy conditions precedent before it is entitled to receive (and be obliged to make) payments under the CfD; and
  - (iii) a day for day reduction in the duration of the CfD support for each day of delay in satisfying these condition precedents beyond the “Target Commissioning Window”.

The move away from immediate financial penalties for delay is particularly welcome.

- A failure to provide the evidence of financial commitment by the required date (Government is floating a period of around one year from award of the CfD for this purpose) will allow the CfD Counterparty to terminate the CfD.
- The conditions precedent to be achieved to allow the payments to flow under the CfD will reflect current compliance processes (eg issuance of an Interim Operational Notification) but also a requirement that the installed capacity of the facility is not less than a very high percentage of the capacity agreed when the CfD is awarded. A percentage of 95% is suggested in the documentation. Government is aware that this could create a cliff-edge type risk which would be unacceptable. It is therefore suggested that developers will be able to choose whether to start the CfD at the expiry of the Target Commissioning Window on the basis of part-completed projects so as to avoid the reduction in the effective term for capacity they have available. There is a lack of clarity as to how this mechanic will be expressed or operate in practice and firm proposals in this regard will be developed with industry for inclusion in the draft delivery plan to be published in July 2013. It is clear however that only practical rather than commercial considerations will be relevant. The interface with force majeure protection will need to be considered carefully.
- A complete failure to achieve the conditions precedent by a long-stop date will allow the CfD Counterparty to terminate the CfD but without prejudice to the developers’ right to apply for a new CfD. Given these provisions, the CfD will include protection for developers against force majeure during the construction phase. See our comments on the CfD contract below as to some initial observations on this force majeure protection.
- The Target Commissioning Date will be specified by the developer and the Target Commissioning Window (TCW) will be a period either side of this date that is set by Government and publicly communicated in the EMR delivery plan. The TCW will vary by technology. It will not be possible to receive payments under a CfD for generation prior to the start of the TCW (to avoid overly conservative decision making by the developer community presumably) but the plant will be able to sell into the market without CfD support if it can generate before the start of the TCW. The strike price under the administratively awarded process will be determined by the relevant Target Commissioning Date and will be publicly known as it will be contained in the then current delivery plan. The duration of the TCW will be an important risk mitigant for developers and, in our view, should not be expected to be such that the Target Commissioning Date lies at its centre.



- Allocation of CfDs will initially be on a “first-come-first-served” basis for those projects that meet defined eligibility criteria. The LCF budget will be split between those technologies that have a slow and dependable rate of deployment and those, such as biomass and solar, which are capable of more rapid deployment. There will be a separate ring-fenced pot for the latter and a general pot for the former.
- In relation to the general pot, the first-come-first-served basis will apply until there is no longer a high degree of confidence that the demand for CfDs will be within the budget envelope (itself defined by the Levy Control Framework and any amount thereof available for EDR and the ring-fenced rapid deployment pot). At this point, CfDs will be allocated through allocation rounds. The mechanism and triggers for switching to allocation rounds remains under consideration and a finalised design for this aspect of EMR is anticipated in July 2013. If the number of projects in any allocation round would exceed the budget then an objective methodology would be applied to determine which projects should be awarded a CfD. Timing an application will be a complex commercial consideration given the proposed terms of the CfD and this allocation basis. Real or perceived slowness in the public sector planning and licensing process will also likely become an even greater focus for private sector irritation.
- A similar process will be followed for the technologies in the ring-fenced pot. The purpose of separating out the more rapid deployment technologies is clearly to ensure that technologies are not crowded out by a stampede for projects based on these quicker to deploy technologies which utilise too much of the available budget. Whilst this does involve the Government in technology choice it is clearly consistent with a regime which aims to bring forward a diverse fuel mix and to give all technologies a chance to play their part.
- There remains a desire to move to competitive rather than administrative allocation of CfDs. It is recognised that a firm time-line for this cannot be set out so that “it is therefore proposed to introduce competitive price discovery when this is consistent with our objectives”. More information on the move to this competitive price discovery will be published with the draft delivery plan in July 2013. Given that sites for offshore wind and new build nuclear have already been allocated and the vast majority, if not all, of these sites will be required to deliver the 2050 goal of 80% decarbonisation compared to 1990 levels, it is not clear to us how such a competitive process can be achieved across all technologies without some form of reacquisition of non-developed sites. (At least for offshore wind there is the possibility of reacquiring the sites not developed within the required time-frames set out in the documentation with The Crown Estate.)
- The systems and processes around strike price setting and allocation set out in the documentation published with the Energy Bill relate only to the majority of renewables projects. The criteria which will apply to CCS and nuclear new build projects remain under consideration but will reflect the different cost and development profiles of these technologies. Whilst not explicit, it seems clear that there is an understanding that the protections against “bed-blocking” proposed in the documentation will therefore also need to be different to reflect the nature of CCS and nuclear new build projects. Given the Ministerial statement of October 2010 as to the absence of nuclear-specific subsidy, we expect there to be a significant desire for the terms relating to CCS and nuclear to be as close as possible, if not identical.
- Phasing of projects will be possible either through using multiple CfDs or through using the flexibility to start the CfD on the basis of a part-commissioned project. The latter of course relies on the TCW being wide enough to cover all of the intended phasing and results in a shorter duration of CfD protection for later phases (it is also not obviously consistent with a payment condition precedent that a high percentage of the intended installed capacity is available). The former approach may result in not all phases receiving a CfD and therefore in reduced development. It is not obvious to us that an optimum solution has yet been found for phased projects (indeed we can see that different solutions may be needed for the phasing of Round 2 offshore wind farms compared to the phase by phase development contemplated under a Round 3 transaction).

- There are no longer lingering references to one-way CfDs (though the legislation leaves open the possibility of variations to the “two way” model which the Explanatory Notes clarify is to “support different types of generation whilst still retaining sensible incentives to generate”). It is also clear now that the CfD will not be “firm” but will be for the volume produced. The previously contemplated availability basis for payment to mitigate system operator action and negative pricing has been determined to be inappropriate. Further, in a negative pricing environment (likely to be relevant only to intermittent CfDs given the reference prices under discussion) the payment to the generator under the CfD will be capped at the strike price. The developer will therefore take the risk on the occurrence of such system operator action and/or negative pricing. It will be interesting to see whether this position increases the need for PPAs for independent generators so as to hedge market price, price capture and imbalance risk to attract debt and equity investment in amounts and at prices consistent with the affordability goal.
- Overseas projects will be eligible for participation in the CfD scheme but the contract terms may be more onerous than for domestic projects including in relation to enforceability provisions and regulatory issues and so as to protect the UK consumer. We anticipate that this will need to provide comfort that the capacity of the relevant plant effectively contributes to the UK supply/demand balance at all times. As the documentation notes “... there is a need to explore further the benefits and risks of projects that are not exclusively connected.” There is an interesting tightrope to be walked here to comply with EU level developments and movements towards a single European energy market. As we have said before, national support measures for technology types do not seem to us to be readily reconcilable with such a single market. Joint projects under Articles 7 -10 of the Renewables Directive will also be eligible for an administratively set price.

## PPA Availability

- A new power to allow the Government to intervene and modify electricity supply licences and industry codes to remove barriers to entry associated with the PPA market is included in the Energy Bill. DECC views as unclear the extent that PPAs will be necessary to allow independent generators to deliver under the EMR regime given the revenue and change in law back-stopping provided by the CfD regime. However, as we have indicated previously, imbalance risk, route to market and the capturability of the CfD reference price are all reasons why they might be (particularly if significant project finance debt and/or annuity seeking equity investment is part of a investor’s construction funding and/or exit/refinancing plan). The understandable position taken on negative pricing may also provide a justification for some independent generators to seek a PPA.
- The new power introduced into the Energy Bill therefore allows the Government to intervene still further into the market to ensure that a market for suitable PPAs develops. Perhaps the existence of this power and the fear of future intervention will be enough to ensure that it is never used. It will be interesting to see how this affects the “market-led” work that Government intends to pursue with independent developers, suppliers, potential aggregators and financial institution around PPA availability to ensure that the PPA market is not an impediment to the development of a broad base of business models operating within the EMR framework.

## Liquidity

- A new power for the Government to intervene and modify electricity supply and generation licences and industry codes to promote liquidity in the GB wholesale electricity markets and remove barriers to entry to that market is also included in the Energy Bill.

- Liquidity is important not just for the efficient operation of the CfD but also to light the way to a return to market-based procurement of UK energy infrastructure. A deep, transparent and liquid market is fundamental to the development of either merchant plant or the ability of financial intermediaries (or others without downstream physical hedges) to enter the PPA market (see above). To our mind this is therefore closely linked with the need for PPAs and so the exercise of this power must be considered alongside the development of the PPA market.
- This new power is in practice a backstop that enables actions to be taken if Ofgem's work to improve liquidity is insufficient (Ofgem is continuing to develop a mandatory auction regime for 20% of UK power but there is no guarantee that it will be introduced). As with the backstop power relating to PPAs, perhaps the existence of this power and the fear of future intervention will be enough to ensure that increased liquidity is achieved.

## DSR and Storage

- The Government has acknowledged the role that could be played by the demand side in meeting the EMR Goals. Primarily this means that demand side and storage providers of capacity will be included in any Capacity Market that is initiated.
- It is also encouraging that the Government is minded to include specific transitional arrangements to smooth the way for and prioritise demand side and storage technology participation if the first capacity market is run in 2014 with delivery of demand side and storage participation earlier than generating capacity.
- As a related matter, we note that a consultation on Electricity Demand Reduction was announced alongside the Energy Bill.

## Institutional Framework

- The most important change relating to the institutional framework is the introduction of the CfD Counterparty referred to above. This does not result in a change to the Energy Bill but rather how it is implemented. This is a convenient point therefore to question whether the exercise of powers under the primary legislation which fall short of secondary legislation will constitute a relevant change in law for the change in law protection to be offered under the CfD. This is not clear from the CfD Heads of Terms.
- The System Operator has the key private sector role in delivering EMR outside the developer/investor community. From early in the process it has been clear that there is the potential for conflicts of interest for the System Operator to arise and therefore a consultation into this has been launched with responses due in January 2013. Ofgem and the Government are to report on this in Spring 2013.

## Capacity Market

- Whilst progress is being made on the shape of the capacity market (it will be based on four year forward estimates of peak demand, there will be a competitive central auction run by the System Operator, CfD supported plants cannot participate at least during the administrative price setting phase, demand side and storage technology plant can participate, existing generating plants can participate, the cost of the capacity payments will be socialised through sharing it with the electricity suppliers) the detailed design is not expected to be completed until May 2013. If it is determined that the first run of the capacity market will occur in 2014 then detailed consultation on it will be in October 2013.

- Under the current proposals, whilst existing plant will have access to the capacity market it seems that this will only be for one year contracts absent significant refurbishment. Newbuild plant on the other hand will have access to contracts of around ten years.
- As noted above, this is the most important aspect of EMR for intending developers of new build gas generation. As the Gas Generation Strategy notes, much of the required investment in gas generation will fall in the 2020s with, perhaps, a need for 9GW of new gas capacity this decade. If EMR is a success in delivering the desired level of investment in renewable, nuclear and CCS enabled generation, the further into the future you go the harder it is to see a role for gas generation with high load factors. Some sort of capacity contract will therefore be essential to bring forward investment in gas generation in the 2020s. In the meantime, the capacity agreement may be required to incentivise gas generation in poor spark spread conditions, notwithstanding the increasingly imminent retirement of around 8GW of coal plants and 4GW of oil plants which have opted out of the Large Combustion Plants Directive.

## Investment Contracts

- Further detail on “investment contracts” (formerly investment instruments) is now available. In response to concerns that the process for setting early strike prices lacked transparency, the Government will now be required to publish the strike and reference prices agreed (and cannot rely on commercial confidentiality exceptions). In relation to Hinkley Point C it will additionally publish summaries of the report it has received from external advisers on costs and returns, DECC’s value for money assessment and an external fairness opinion.
- The intent is now that investment contracts will be migrated to the CfD Counterparty once it is established. A statutory transfer scheme is therefore included in the Energy Bill for this purpose.
- An update on the FID enabling policy for investment contracts entered into after the Energy Bill is enacted but prior to the CfD regulations being in force, is expected in July 2013.

## Devolved Administrations

- Much of the renewable potential of the UK lies within the Devolved Administrations of Scotland, Wales and Northern Ireland. It is proposed that a Memorandum of Understanding or other enduring framework for engagement would apply from enactment of the Energy Bill.
- In Scotland, energy, generation and supply (but not, generally, environment policy) is reserved to the UK central government. Therefore, the Scottish Government will have a statutory consultative role in the design and delivery of the CfD as well as within the institutional framework. Scottish powers over the RO will remain (with a statutory consultation role in relation to the fixed ROC applicable from 2027).
- The position of Wales will be similar to that of Scotland for the CfD (the Welsh Government does not have independent powers in relation to the RO).
- The position in Northern Ireland is considerably more complex because of the Single Electricity Market in Ireland.

# Work in Progress

In addition to the changes from the May documentation (the most significant of which are highlighted above) there are also important parts of the new regime which, whilst they now have an outline form, are still missing important detail. It is clear that 2013 will be just as important a year of consultation and development as 2012 for the achievement of the EMR Goals. Some of the most important matters still to be concluded include:

- In addition to existing statutory decarbonisation targets under the 2008 Climate Change Act, the documentation published with the present form of the Energy Bill states that the Energy Bill will be amended to include a power to set a decarbonisation target range for the sector by 2030 through secondary legislation.

However, this power will not be exercised until the fifth Carbon Budget (for 2028 – 2033) is set in 2016 (which, given the run up to the Energy Bill, is conveniently after the latest date for the next General Election). As noted above, clear and unambiguous political support is needed for decarbonisation. We are concerned that the process of contemplating the need for such a target (let alone the unseemly public spat between politicians in relation to it) flags a concern that the reliance that investors are asked to place on the UK's energy policy could be misplaced. If this target is intended to be a fix to the short term nature of each Carbon Budget and EMR Delivery Plan, when compared to the investment cycle for relevant assets, there are alternatives that take the delivery of energy policy out of the hands of politicians. If introduced, it is important that this target is not caveated, as each explicit caveat will be analysed closely as a reason not to invest in the UK. We note that the Government's adoption last year of the 4th Carbon Budget was caveated in that it was conditional upon EU progress towards the EU 2020 emissions goal. This progress will be reviewed by the UK Government for this purpose in 2014; if the UK emissions trajectory differs from that of the ETS, then the 4th Carbon Budget would be revised. It is this caveat and its implications for the volume of new build gas generation to be deployed in the UK that has caused much consternation in certain quarters as the Gas Generation Strategy notes that "Gas could play a more extensive role, with higher load factors, should the 4th Carbon Budget be revised upwards. Including capacity commissioned [in 2012 (or expected to be commissioned soon after 2012)], this could lead to a need for investment of up to 37GW of new gas capacity by 2030."

- The Government has launched a call for evidence around the supplier obligation which is to fund the CfD Counterparty. There are concerns that the resulting payment obligations will be difficult to predict and collateral requirements may be onerous. Responses are due by 15th January 2013 and DECC will then respond by July 2013.
- The final terms of the CfD will not be set until July 2013. Draft renewables strike prices will be published at the same time as part of the draft delivery plan for consultation; it is envisaged that CfD strike prices for renewables for 2014/15 to 2018/19 will be announced at the end of 2013 in the first CfD delivery plan.
- The draft terms of the CfD and the allocation and price setting process set out in the documentation accompanying the Energy Bill is only for renewable sources of power generation. The Government continues to consider what adjustments will be needed for CCS and newbuild nuclear projects. Further detail on the allocation of nuclear/CCS CfDs is not expected until the close of the CCS competition and FID enabling processes in July 2013.
- The draft Heads of Terms for the renewable CfD that has been published is also subject to a number of express caveats in addition to the above including: (a) it does not deal with phased projects; (b) it only relates to UK located assets; (c) it is not tailored to deal with assets located in Northern Ireland; (d) it does not take account of developments in the UK and EU financial regulatory regimes; (e) the accounting and tax treatment of the CfD still remains to be clarified; and (f) state aid considerations remain relevant.



- Whilst progress is being made on the shape of the capacity market the detailed design is not expected to be completed until May 2013. If it is determined that the first run of the capacity market will occur in 2014 then detailed consultation on it will be in October 2013.
- The System Operator has the key private sector role in delivering EMR outside the developer/investor community. A consultation into potential conflicts of interest has been launched with responses due in January 2013. An Ofgem and Government report on this is due in Spring 2013
- A consultation process is contemplated in relation to demand reduction that is intended to allow amendments to be brought into the Energy Bill during its parliamentary passage if the consultation reveals a role for legislation in encouraging demand side reduction.
- How will the exclusion of Energy Intensive Industries from the costs of the CfD be implemented? The work on this, involving BIS as well as DECC, will progress as part of the EMR programme.
- In March, 2013 there will be a consultation in relation to the transition from RO to CfD. Government will report back on this consultation in September 2013.
- The Energy Bill is enabling and requires detailed and complex secondary legislation. The consultation on this is not expected to commence until October 2013.
- State aid decisions will be required, including on the terms of the CfDs, variations on any investment contracts issued under the FID Enabling process, the future operation of the Capacity Market and the proposed exemptions for Energy Intensive Industries and Combined Heat and Power.
- To what extent will a CfD include refinancing gain sharing? In this regard, we note that a sophisticated approach to gain sharing may actually incentivise recycling of capital into a programmatic development.
- The FID Enabling process will not become clear until July 2013.
- Reference price adjustment following independent expert assessment of changes in market arrangements remain undefined. Proposals will be made in July 2013.

A copy of the indicative EMR Road Map from the DECC consultation is set out in Annex 3. It is critical that Government continues to listen to the entire breadth of views from the market in providing this detail as the decisions on these matters are vital to the functioning of the new regime. The work of the three EMR Expert Groups on CfDs, the CM and the Institutional Framework will therefore continue to be vital. We remain concerned that vital elements of energy policy are being fixed on a sequential basis. This is not ideal in producing a system that is integrated nor in building confidence that what is set is permanent, nor that what has been set provides sufficient flexibility for setting the remainder.

The Government Pipeline and Storage System (**GPSS**) also remains a work in progress as Government investigates “restructuring opportunities” to justify a value for money assessment for its sale. As we note in the Synopsis below, this may be another fertile area for “debate” between HM Treasury and another Government department.

# Externalities

EMR's goal is to deliver investment. The liaison with industry to date has therefore been commendable as this has meant that as many externalities have been taken into account as possible during the process. It may seem that significant deviations in the direction of travel are occurring on a reactive not a proactive basis; but better that this occurs prior to Royal Assent of the Energy Bill.

There is however one area where we remain concerned. To optimise affordability significant leverage needs to be deployed on EMR assets (ideally through construction but if this is not possible at least as part of any recycling of capital for reinvestment into the next stage of the programmatic development programme for UK energy infrastructure). It is encouraging that there is now explicit recognition of the constraints on both the Big Six and banks in providing the required volume of investment. However, the new regulatory normal may mean that a more sophisticated approach to refinancing risk is required in the CfD (though the Government does not expect to reach a conclusion on this until July 2013) and/or that some of the affordability benefit of EMR is sacrificed at the altar of bank safety and/or that a more protected position is required to allow capital markets (re)financings rather than bank financings.

This is not the place to rail against developments in the global financial system but it is important to remember, in the context of EMR, that designing a regulatory capital/bank safety system for ultimate depositor safety in the name of the consumer implies a reduction of risk taking by banks which in turn potentially raises the cost to the consumer of electricity through a reduction in debt availability. The only way out of this (assuming there is no desire to alter the approach on bank safety) in the energy sector is to reduce the role of the maturity transformers (the banks) in providing funding to large capital projects. If this is to be the case the CfD and underlying technologies will need to be capable of underpinning a high investment grade rating (at least A- or equivalent). We hope that there is a focus on this as part of the finalisation of the CfD terms and we are encouraged that the desirability of capital markets refinancings of bank debt is now expressly mentioned in the Operational Framework. In this context, it is important to remember that ECA and/or other publicly supported debt may not be a complete solution.

Developments in regulatory capital treatment are changing the world of project finance. The net stable funding ratio (**NSFR**) and the leverage ratio proposed by Basel III mean that the all-in cost of financing to a borrower of project finance will be higher than during the last dash for gas, and even in respect of the funding of RO projects. As we explain below, ECA guaranteed loans are not necessarily a solution in the new regulatory normal. There may also be significant capacity constraints on volumes that can be raised in the ECA supported market.

The NSFR, in simple terms, requires banks to have in place funding with a maturity of at least one year to cover their assets with a maturity of a year or more. While it is not the case that banks will have to match assets on a loan-to-loan, year-to-year basis, it is likely that this new ratio will make long-term projects lending a less attractive and more expensive endeavour, and the existence of ECA cover for a given long-term loan is unlikely to make a difference. This ratio, then, is potentially a problem not just for ECAs but for the project finance industry as a whole.

While Basel III will not be fully implemented for some years, ECAs have already begun discussing and exploring ways in which they might update their array of products to help fill a gap in medium and long-term lending created by the NSFR. Thoughts to date have included a ramp-up in direct lending by ECAs; a willingness to work with and retooling of ECA products to suit non-bank financial institutions not subject to Basel III who enter the projects market; and also securitisation programmes.

The leverage ratio simply takes away one of the advantages of ECA backing. The leverage ratio, which simply measures exposure against capital, is intended to be "simple" and "transparent" as well as non-risk based. It is this last aspect of the leverage ratio which renders ECA cover less useful than it otherwise would be for purposes of calculating the leverage ratio; because the calculation is not risk-based, ECA-covered assets will be treated no differently from other assets due to risk-weighting, which has traditionally been one incentive for lenders to work with ECAs.

A similar analysis will presumably apply to loans backed by guarantees from IUK compared to loans made directly by GIB and it is important that regulatory developments for financial institutions are taken into account in considering the affordability aspects of any Government support if the cost of funding benefit of EMR is not to be lost as a result of regulatory capital action.

## GIB

In relation to GIB's current operations it is interesting to note that the current State Aid approval is only for the initial funding of the GIB, and does not permit the GIB to make investments which would constitute aid. The State Aid decision said that in relation to market orientated interventions by the GIB, the EU Commission considers that the GIB would need to be able to demonstrate upon request of the EU Commission that the market economy investor principle has been respected (**MEIP**). The EU Commission considers that, to satisfy MEIP, the GIB interventions would need to be only to make up volume, and the GIB would need to assume the same risks, the same maturity and the same return as would be accepted by commercial operators. Note that further State Aid approvals would be required for: any funding injection exceeding the circa £3 billion already notified to the EU Commission; any additional sectors not among the sectors already notified to the EU Commission as being within the remit of the GIB; granting of the right to borrow, directly or indirectly under the umbrella of any institution; and any funding beyond the four year period commencing on 17 October 2012 (as the date of the State Aid decision). In addition from a UK perspective, GIB being given full borrowing powers has always been stated to be subject to public sector debt falling as a percentage of GDP and further State Aid approval being granted. The former was previously expected to occur in 2015, but in the December 2012 Autumn Statement the Chancellor stated that this target is not expected to be reached until 2016/2017. The Enterprise and Regulatory Reform Bill which is intended to set out the legislative framework for the GIB is not yet in effect, but we understand the Government consider this is merely facilitative.

## COP 18

Commentators have noted that one of the more successful outcomes arising from the 18th session of the Conference of the Parties to the UNFCCC (**COP 18**) held in Doha, Qatar in late 2012 was the adoption of an amendment to the Kyoto Protocol (**KP**) that formally established emissions targets for the Protocol's second commitment period (**KP2**), which will run from 1 January 2013 to 31 December 2020. Under KP2, the EU has agreed to bind itself to an emissions reduction commitment of 20% of 1990 levels by 2020, which is consistent with its own internal reduction target imposed through Phase III of the EU ETS. Many environmental groups were, however, disappointed with this 20% figure as prior to COP 18 the EU had offered to increase its target to 30% if "other major economies in the developed and developing worlds" committed "to undertake their fair share of a global emissions reduction effort". Despite settling on the lower 20% target, it is worth noting that KP2 includes provisions requiring that KP2 parties must by 2014 at the latest review their commitments with a view to increasing their levels of ambition. As such, it remains a possibility that the EU could yet increase its KP2 targets to the 30% level before 2020.

The EU's 20% target is significantly less than the UK's current domestic target set under the Climate Change Act 2008 of a 34% reduction of 1990 levels by 2020. This consequently puts the UK on a markedly steeper decarbonising trajectory than its European colleagues. In light of the Chancellor's statement that the UK is going to cut its carbon emissions "no slower but also no faster than our fellow countries in Europe", this poses a question as to whether or not the UK's current decarbonisation ambitions might be reduced. Whether or not the UK might indeed reduce its current 34% target may depend, in part, on the outcome of the 2014 review envisioned by KP2 and, specifically, whether or not the European Union can agree to increase its own level of ambition regardless of what actions the world's other major economies do (or do not) take in relation to decarbonisation. As highlighted elsewhere, this is a critical consideration in relation to the extent of the future role of gas generation in the UK.

# Synopsis

## Overview

The new Energy Bill sets out the framework for the implementation of Electricity Market Reform. The Energy Bill also continues to contain arrangements in relation to:

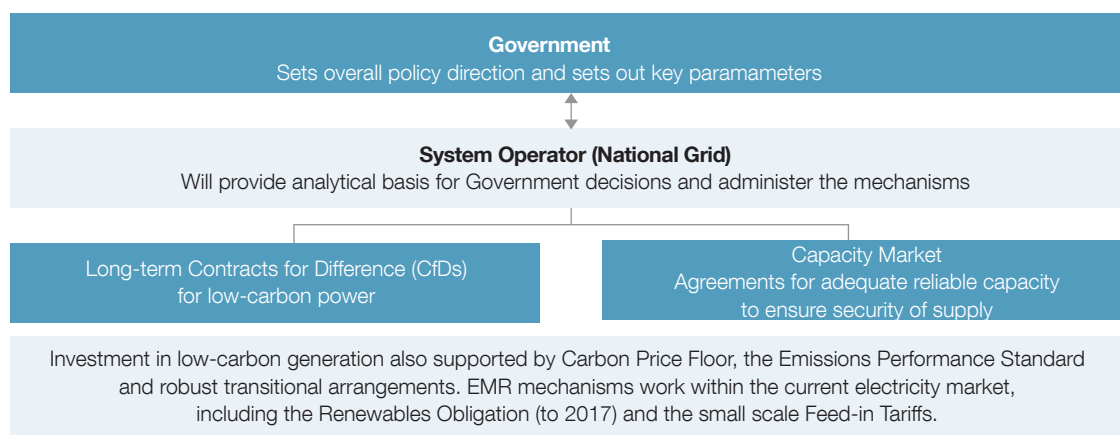
- The introduction of a Strategy and Policy Statement to improve regulatory certainty by ensuring that the Government and Ofgem are aligned at a strategic level;
- Creating the Office of Nuclear Regulation;
- Enabling the sale of the Government Pipeline and Storage System; and
- A correction to current law to ensure that offshore wind generators constructing transmission assets do not breach the law when testing/commissioning such assets which applies to the period before a completion notice is given (what this entails is not yet fully clear) and for a further period of up to 18 months until a sale of such assets to an OFTO.

It is intended that the Energy Bill will receive Royal Assent and enter the statute book by the end of 2013. The secondary legislation and code changes which are necessary to put the flesh on the bones of the Energy Bill are hoped to be in force in the second half of 2014.

EMR is designed to secure the investment needed to deliver a diverse low carbon technology mix. While the Government has a long term vision of low carbon generators competing fairly under a robust and stable carbon price, the different stages of development of low carbon technologies mean that significant, if diminishing, market intervention is required for a generation. The various interlocking parts of Electricity Market Reform are therefore anticipated to run in four stages:

Stage 1 To 2017	Stage 2 2017 – 2020s	Stage 3 2020s	Stage 4 late 2020s/beyond
<p>Current arrangements (RO) alongside new contracts for difference with prices set administratively.</p> <p>Capacity auctions could be initiated in 2014 if needed, for delivery of DSR and storage capacity for winter 2015/2016 and delivery of market wide capacity from winter 2018/2019.</p>	<p>Technologies mature (but at different rates) and some are able to enter competitive, technology-specific auctions.</p> <p>If the first auction is held in 2014, the Capacity Market could be fully operational and delivering capacity in this period.</p>	<p>All technologies have matured to move to technology-neutral auctions. Demand side response, additional storage and interconnection and well functioning energy markets across the EU will play an increasingly large role in managing supply and demand.</p>	<p>Technologies are mature enough and the carbon price is high and sustainable enough to allow all generators to compete without intervention.</p>

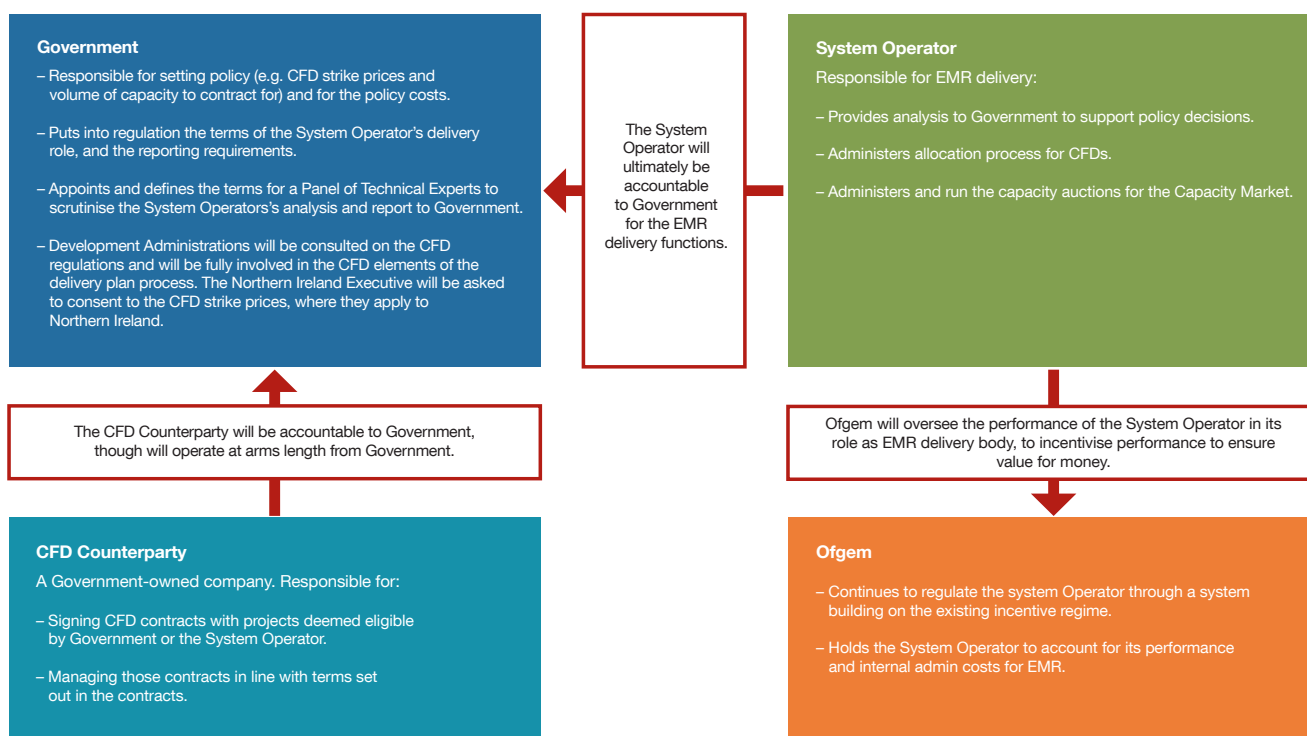
It is interesting to note that within the documentation published alongside the Energy Bill, in so far as it relates to these stages of EMR, there is some confusion between the references to “renewables” and “technologies”. It is unclear whether these are errors of consistency or whether the position has been deliberately blurred to allow for different technologies to pass through (or potentially stop at) the separate stages at different rates and times. Within this staged approach, it is envisaged that the various reform instruments will interact and be administered as follows:



The role of the System Operator in allocating the CfDs and Capacity Agreements within both a new Capacity Market and the wider wholesale market is critical. A clear allocation of roles and responsibilities between the Government, the System Operator and Ofgem is therefore more than an administrative nicety – it is essential to the practical utility of the new arrangements. The detailed implementation of this will need to include procedures and mitigants for any potential conflicts of interest which arise as a result of the System Operator's role in the delivery of EMR. A public consultation has therefore been launched which identifies some such potential conflicts of interest and the range of available mitigating measures in relation to the role of the System Operator in the delivery of EMR. These identified potential conflicts arise from the tension between EMR's objectives of security of supply, decarbonisation and affordable energy and National Grid's objective, subject to duties arising from legislation and licence conditions, to maximise profit.

Unfortunately, therefore, further work is required to prepare the System Operator for the delivery of the EMR mechanism, to set up the CfD Counterparty and to ensure an appropriate accountability and governance framework is in place for both bodies. The detail of the interaction of Government, the System Operator and Ofgem is not expected to be available until the relevant secondary legislation is available in 2013-2014. The Government has, however, published the following high-level overview of the interaction between the Government, the System Operator and Ofgem.

An overview of the roles and responsibilities within the Institutional Framework.





## Electricity Market Reform

### Structure of Part 1 of the Energy Bill – Electricity Market Reform

- Chapter 1 – Contracts for Difference
- Chapter 3 – Capacity Market
- Chapter 4 – Conflicts of Interest and Contingency Arrangements
- Chapter 5 – Investment Contracts
- Chapter 6 – Access to Markets etc.
- Chapter 7 – Renewables Obligation: Transitional Arrangements
- Chapter 8 – Emissions Performance Standard

### (a) Contracts for Differences (Chapter 2)

#### Powers in the Energy Bill in relation to Contracts for Difference

- Power for the Secretary of State to make CfD regulations setting out how the mechanism should work.
- A power for the Secretary of State to designate a CfD counterparty.
- Powers of the Secretary of State to exercise controls over that body.
- Power for the System Operator and Secretary of State to instruct the counterparty to offer CfD contracts to eligible generators.
- A duty on the Secretary of State, when making CfD regulations, to oblige electricity suppliers to make payments to the counterparty to enable it to make payments under the contracts.
- A duty on the Secretary of State, when making CfD regulations, to oblige electricity suppliers to make payments to the counterparty to enable it to make payments under the contracts.
- Power of the Secretary of State to set maximum costs and targets relating to CfDs.
- Power of the Secretary of State to make changes to licence conditions to enable the System Operator to carry out its functions in relation to delivering CfDs and make other incidental provisions

The terms of the CfDs will be largely standardised across technologies but there will be a degree of variation to reflect differences in generation profile (e.g. intermittent versus baseload) and risk profile (e.g. early stage Carbon Capture and Storage (CCS) projects). Any such variations are required to represent value for money and maintain a level playing field so as to be consistent with the state aid approach taken by the Government. CfDs (and investment contracts – as to which see below) will also need to reflect the statements of the Minister in relation to what is and is not a subsidy in the context of new build nuclear plant.<sup>2</sup> In exceptional cases, the Secretary of State may also allocate CfDs to individual projects to which the generic terms might not be suited and which will have to be individually negotiated.

CfDs will be long-term private law contracts. Importantly, it is clear that there will now be a single counterparty to each CfD, who is to be funded from payments by electricity suppliers. It seems at least theoretically possible for there to be more than one entity filling the role as CfD Counterparty. More detail on the CfD, its allocation and the CfD Counterparty are contained in “Electricity Market Reform (Part 1 Energy Bill)” below.

2. Written Ministerial Statement on energy policy 18 October 2010. See page 16 of our commentary on the White Paper.

## (b) Capacity Market (Chapter 3)

### **Powers in the Energy Bill in relation to the Capacity Market**

- Power for the Secretary of State to make regulations to introduce a Capacity Market (“electricity capacity regulations”), which may in particular include provision:
  - governing capacity agreements;
  - about capacity auctions;
  - designating a settlement body;
  - conferring functions on the Authority or the national system operator to enable delivery of the Capacity Market;
  - imposing requirements on persons outside of a capacity agreement;
  - about the provision and publication of information; and
  - about enforcement and the resolution of disputes.
- Power for the Secretary of State to make modifications to licences, or to industry codes maintained under licences, for the purposes of the Capacity Market.
- Power for the Secretary of State to make amendments to specified enactments for the purposes of the Capacity Market

The Capacity Market is intended to be the means by which Government ensures that future blackouts do not occur as a result of the policy choice to invest in intermittent and inflexible generation.

The Capacity Market remains subject to significant further detailed design development and is not expected to be settled until later in 2013. These further developments will be important for the ability of the Capacity Market to play a significant role in the realisation of the Government’s Gas Generation Strategy.

The Government recognises that the absence of clarity on the Capacity Market may create a disincentive to make investment decisions on new plant. It has therefore indicated that plants which begin construction between May 2012 and the first auction would be treated on the same basis as new plant (if a distinction between new plant and existing plant is used in the Capacity Market).

The proposed length of contract is one year for existing plant and between one and ten years for new plant. It remains to be seen whether a ten year term will be sufficient for new assets to be built or investment to be made in reliance on the capacity agreement.

The proposal is that the Capacity Market will run on the basis of an auction looking four years ahead. The Government is minded to run the first auction in 2014, for delivery of capacity in the year beginning in the winter of 2018/2019. Whether this timing is adopted will be informed by updated advice from Ofgem and the System Operator as well as consideration of the outcome of the review of the 4th Carbon Budget. As noted above, the outcome of COP 18 and the EU’s review of its decarbonisation targets by 2014 further complicate this picture.

Further, the Government is minded to run pilot auctions for delivery by demand side capacity providers (such as demand side response (**DSR**) and storage) for delivery from 2015-18. Government intends that demand response should play a full part alongside generation, but suggests that time-banded products specifying delivery parameters may be needed for its participation, and that this could be included in a secondary auction closer to the delivery year.

The auctions will be run by the System Operator. The structure of the auction has not yet been finalised, but the proposal is “pay as clear” for both new and existing plants, so that every successful provider would be paid the clearing price set by the most expensive successful provider that bid into the auction. Winners in the auction will enter into capacity agreements committing them to provide electricity when needed and pay penalties if they fail. The penalty regime remains under consideration, but Government intends to develop this in conjunction with Ofgem’s further work on cash-out pricing.

The costs of the Capacity Market will be shared between electricity suppliers (and therefore indirectly socialised to consumers through electricity bills). The details of the apportionment between suppliers is yet to be decided. A settlement agency model (different to the single counterparty model for the CfDs) will be used for payments, with the settlement agent making back to back payments within days between suppliers and capacity providers, underpinned by collateral and mutualisation for defaults. Although this is not expressly stated in the documentation, we assume that the statement that this is different to the CfD model means that this is intended to follow a multi-party approach. We need to see the full details of this when it develops, but given that the Capacity Mechanism is anticipated to underpin investment in gas generation, consideration needs to be given to some of the difficulties of a multi-party model which were discussed in relation to the previous CfD counterparty proposals and which resulted in the rejection of a multi-party model for the purposes of the CfD. Please see our comments on the draft Energy Bill available at <http://www.allenoverly.com/UK-Electricity-Market-Reform> which include relevant observations in this regard.

The Government proposes to prevent plant that receives a CfD (at least while the CfD price is set administratively) from participating in the Capacity Market. The decision on whether plants in receipt of RO support will be able to participate in the Capacity Market is not due to be made until March 2013.

There is an interesting comment on interconnectors that, given the complexity of energy trading arrangements between markets, it may in practice prove too difficult for interconnected capacity to participate in the Capacity Market.

## (c) Conflicts of Interest and Contingency (Chapter 4)

### **The Energy Bill includes:**

- power for the System Operator to administer CfD and Capacity Market mechanisms;
- reserve powers to deal with potential conflicts of interest within National Grid, if needed; and
- reserve contingency powers to confer the EMR delivery functions on an alternative body.

The current design of EMR envisages that National Grid, as the System Operator, will play a key role in administering the CfDs and the Capacity Market. There are valuable synergies from this approach. However, there is potential for conflicts of interest to arise with National Grid's existing roles in the energy market. A consultation has been published which sets out some of the potential conflicts of interest that may arise and a range of mitigating measures. Responses to the consultation are required by 29 January 2013. Some of the more interesting potential conflicts of interest arise from

- (i) National Grid, as the System Operator, having access to information that it would not otherwise have access to at all in relation to Government intentions and generation projects, which could enable its transmission owner businesses to take strategic decisions in advance, or to the detriment, of its competitors, in relation to the acquisition or construction of certain types of assets e.g. interconnectors or offshore wind turbines;
- (ii) National Grid, as the System Operator, having the ability to exert influence through the collection and analysis of information for ministers in relation to EMR decisions, which could enable information to be presented in such a way that National Grid's gas system operation, transmission and storage businesses are benefited by the over estimation of capacity requirements; and
- (iii) the System Operator's role in, amongst other things, the allocation of CfDs and determination of satisfaction of the pre-qualification conditions for the capacity market. The System Operator could make decisions which benefit particular parts of National Grid's businesses, for example the Offshore Transmission business could benefit from the award of CfDs to offshore wind if it creates more opportunities to bid for offshore transmission licences.

The Energy Bill includes powers to enable the Secretary of State to manage potential conflicts of interest of National Grid. The Secretary of State may modify the conditions of electricity licences and codes in order to impose business separation measures between the System Operator's EMR delivery and system operation functions and any other functions in its business (although such a separation would seem to diminish the synergies which lie behind choosing National Grid for this role). The Energy Bill provides for a non-exhaustive list of such measures which include requirements for separate geographic locations, separate computer systems and information barriers. The Secretary of State is required to carry out a consultation before making any licence modifications.

In addition to the conflict of interest measures in relation to National Grid discussed above, the Energy Bill gives the Secretary of State power to transfer the EMR delivery functions away from National Grid if an energy administration order is in force in relation to it, if the Secretary of State considers this necessary or desirable as a result of a change of ownership of it, if the Secretary of State considers it is not carrying out its EMR functions in an efficient and effective manner or if the Secretary of State considers this necessary or desirable to further the purposes of the EMR scheme.

These powers also enable the Secretary of State to further transfer the EMR delivery functions if the relevant conditions are met in relation to that transferee, either to another person or back to National Grid.

It should also be noted that the Energy Bill gives the Secretary of State the power, in section 43, to include in regulations relating to the encouragement of low carbon electricity generation or the electricity capacity market provision that the System Operator (and its directors and employees) are not liable in damages for anything done or omitted to be done in the exercise of its functions under those regulations. Although no exemption may be given for an act or omission in bad faith, which is incompatible with a Convention Right under the Human Rights Act 1998 or failure to comply with an order under the Electricity Act 1989, it is not yet clear how this is expected to operate in practice – especially in relation to conflicts of interest. Whilst presumably an oversight, it is noticeable that section 43 does not apply to Ofgem (who could be allocated EMR functions pursuant to section 21) or Elexon (who may be asked to be the settlement agent for the CfDs (and presumably also the capacity agreements)).

## (d) Investment Contracts (Chapter 5)

The lack of detail that is available as to the CfDs risks an investment hiatus for the early projects under the EMR regime. The Energy Bill therefore allows the Secretary of State to enter into “investment contracts” with generators in advance of the implementation of CfDs so as to give comfort to investors in taking final investment decisions. As a matter of policy, it is intended that, once the CfD Counterparty has been designated, investment contracts will be transferred to it.

### **Powers in the Energy Bill in relation to Investment Contracts**

- Authorisation for the Secretary of State to fund investment contracts, and regulation making powers to impose obligations on suppliers to fund obligations under investment contracts (whether or not these are transferred from the Secretary of State).
- Powers for the Secretary of State to make transfer schemes to transfer rights and liabilities under investment contracts, for example from the Secretary of State to a CFD counterparty or to an investment contract counterparty.
- A power for the Secretary of State to designate by order a company or public authority as an



## (e) Access to Markets etc. (Chapter 6)

### **Powers in the Energy Bill in relation to Power Purchase Agreements:**

- Powers for the Secretary of State to make changes to electricity supply licences, conditions and related industry codes, to facilitate investment in electricity generation by promoting the availability of Power Purchase Agreements.

Government recognises that independent generators, who frequently rely on PPAs in order to secure finance, are finding it increasingly difficult to obtain PPAs on terms that are sufficiently beneficial to allow them to invest. Government hopes, however, that a move towards the CfD regime will allow a more competitive PPA market to be re-established. To this end, it will initiate a stakeholder process from January 2013 to identify what changes will have to be made to the PPA market to prepare it for the CfD regime. Government hopes that this process will produce both an example of a CfD friendly PPA contract and a voluntary code covering transparency issues.

Despite the aforementioned stakeholder process, Government intends to keep the PPA market under review throughout the delivery of EMR and has included powers within the Energy Bill that would enable it, amongst other things, to impose obligations as to both the terms of PPAs (including the terms on which suppliers purchase electricity) and the circumstances or manner in which suppliers offer to purchase electricity.

### **Powers in the Energy Bill in relation to liquidity:**

- Powers for the Secretary of State to make changes to electricity generation and supply licences conditions, and related industry codes, to promote liquidity in the GB wholesale electricity market and remove barriers to entry to that market.

The GB wholesale electricity market is relatively illiquid (i.e., market participants are unable to quickly or easily buy or sell power at a price that reflects trading fundamentals) and Government believes that this is a barrier to independent electricity generators and suppliers entering such market. A liquid wholesale market is also thought to be essential for the operation of the regime contemplated under EMR. In the event that Ofgem (which launched a further consultation on liquidity for a “Secure and Promote” licence condition on 5 December 2012<sup>3</sup>) inspired/industry led initiatives do not resolve this issue, Government has added powers in the Energy Bill that would enable it to intervene to improve liquidity in the GB wholesale market if required.

3. <http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/Secure%20and%20Promote%20Consultation.pdf>

## (f) Renewables Obligation and Transition (Chapter 7)

### **Powers in the Energy Bill in relation to Renewables Obligation transition Investment**

- Powers for the Secretary of State to place an obligation on Ofgem (or a CfD counterparty) to purchase renewables certificates at a fixed price.
- Powers for the Secretary of State to impose a levy on electricity suppliers to recoup the cost of purchasing the renewables certificates.

Whilst the investment instruments are targeted at preventing an investment hiatus for new plant that will clearly come through under the CfD regime, an alternative hiatus mitigant is required for plants which are to be brought through under the RO scheme.

This is addressed by a phased changeover transitional arrangement. The RO will remain open to new generation until 31 March 2017 allowing new renewable generation that comes online between when the CfDs start (which is expected to be 2014) and 2017 to choose between the CfD and the RO. After this time the RO will be closed to new entrants and “vintaged” (levels and length of support for existing participants will be maintained). All generation accredited under the RO will receive its full 20 years of support (subject to the 2037 end date of the RO), but a “Fixed ROC” mechanism will apply between 2027 and 2037.

Some flexibility around the 2017 date is contemplated for plant whose completion is delayed by reasons outside of their control (such as delays in grid connection or planned radar installation).

The Government intends to consult on the regulations for the transitional period in March 2013 with the aim of having secondary legislation to commence on 1 April 2014.

The Energy Bill provides for powers to implement the “Fixed ROC” mechanism intended to apply from 2027 to 2037 through a certificate purchase order, which may include a certificate purchase levy on suppliers.

Interestingly, the Energy Bill now contemplates that the purchasing body for the Fixed ROCs could be a CfD Counterparty (whereas the previous draft just contemplated the Authority or the Secretary of State), but it provides that the payments received from the levy may only be used for the purposes of discharging the certificate purchase obligation. This further compounds the structural problems with the proposed approach to “pay when paid” for a CfD Counterparty.

The Government will consult further on fixed price ROCs and expects to do this in Q3 2014.

## (g) Emissions Performance Standard (Chapter 8)

### **Powers in the Energy Bill in relation to the Emissions Performance Standard:**

- Duty on power stations not to exceed annual CO<sub>2</sub> emissions limit.
- Powers for the Secretary of State to bring additional plant into the regime, specifically where an existing plant replaces a boiler or where a 'gasification' plant is associated with two or more generating stations.
- Powers for the Secretary of State, Scottish and Welsh Ministers and Department of Environment Northern Ireland to implement an EPS enforcement regime.
- Power for the Secretary of State to suspend the EPS for the purpose of maintaining security of supply.
- Duty on the Secretary of State to consult Scottish and Welsh Ministers and seek consent of

The EPS is one of the backstops which supports the delivery of EMR; in particular it seeks to ensure that no new coal-fired power stations will be built unless they are equipped with CCS technology.

There will be a legal requirement on new fossil fuel plant at or over 50MW (and fossil fuel plant that undergo significant upgrades) not to exceed an emissions limit, which has been initially set at the equivalent of 450g/kWh. This limit is set out in the Energy Bill for the period up until and including 2044.

There will be a grandfathering for new plant brought through under this 450g/kWh limit.

The Energy Bill contains a power for the Secretary of State (or in the case of Northern Ireland the Department of Enterprise, Trade and Investment) to suspend or modify emission limits if there is an electricity shortfall or a significant risk of an electricity shortfall.

The powers and grandfathering referred to above are essential to join the EPS into aspects of EMR which are focussed on the development of CCS within a CfD and the development of gas plant incentivised by the Capacity Market.

## Carbon Price Floor

The Carbon Price Floor was introduced in the 2011 Budget with carbon price support rates at levels equivalent to £4.94 per tonne of CO<sub>2</sub> (**tCO<sub>2</sub>**) for 2013-14.

The 2012 Budget has raised these to the equivalent of £9.55/tCO<sub>2</sub> for 2014-15, in line with the policy of increasing the tax inclusive price of carbon to £30/tCO<sub>2</sub> (2009 prices) by 2020.

These rates represent the difference between the Government's target carbon price and an estimate of the applicable EU ETS price.

Future rates will be announced at subsequent budgets; rates will be set two years in advance to allow generators time to plan hedging strategies and avoid damaging liquidity.

## Gas Generation Strategy

The Gas Generation Strategy was published alongside the Chancellor's Autumn Statement, shortly after the Energy Bill was introduced to Parliament. The Government expects that gas will continue to play a major role in our electricity mix over the coming decades, alongside low-carbon technologies as the electricity system is decarbonised.

The role gas plays is to be determined by the market, while keeping emissions within the limits set by the Carbon Budgets and consistent with a least-cost approach to the UK's binding 2050 carbon target. The UK is likely to need significant investment in new gas plant. Modelling by DECC suggests that up to 26GW of new gas plant could be required by 2030. Much of the new gas investment needed is likely to be in the 2020s but, under some circumstances, there could be a need for up to 9GW of capacity this decade. Gas will be important for balancing out the increasing levels of intermittent and inflexible low-carbon energy on the system. The modelling also shows that gas could play a more extensive role, with higher load factors, should the 4th Carbon Budget be revised upwards.

The objective of the Gas Generation Strategy is to reduce the uncertainty around gas generation for investors to ensure that:

- adequate gas generation capacity is available, including ensuring maintenance of an adequate capacity margin to maintain security of electricity supply;
- there is competition in the electricity generation market and opportunities for investors in gas generation plant;
- flexible plant is available to meet the intermittency associated with renewables, providing backup energy particularly in times of peak demand and low renewable generation; and
- the necessary gas supply infrastructure is in place to support the role of gas in generation.

## Office of Nuclear Regulation

The Energy Bill provides for the consolidation of the current nuclear regulator, the Office for Nuclear Regulation, onto a statutory footing. The intention is that this will allow the ONR to retain the best of current practice whilst also creating a modern nuclear regulator based on the key regulatory principles of transparency, accountability, proportionality and consistency.

This aspect of the Energy Bill really completes the consolidation of the nuclear regulatory framework in the UK which has been underway for a number of years.

Importantly the Energy Bill will ensure that the ONR has the financial flexibility to meet its business needs on a sustainable basis. Financial resources and a commitment to transparency are some of the most important aspects so that the ONR can clearly demonstrate its effective independence from those bodies and organisations concerned with the promotion of nuclear power.

## Government Pipeline and Storage System

The Energy Bill facilitates a sale by the Government of the GPSS so as to:

- raise a capital receipt for Government so as to reduce the public debt;
- enable increased private sector investment in the GPSS to increase the resilience of the system and avoid future liabilities for Government; and
- allow commercial development of the GPSS.

The Impact Assessment for the sale of the GPSS contains some useful facts relevant to persons who may be interested in purchasing it:

- Annual running costs of the GPSS are approximately £30,000,000.
- Annual capital investment requirements are approximately £8,000,000 (they are estimated to be between £4,000,000 and £12,000,000 moving forward).
- Current revenue from the US Visiting Forces and commercial sources for the use of spare capacity are £39,000,000.
- MoD does not currently pay for its use of the GPSS but, post-sale, a range of £6,500,000 to £13,200,000 is signposted as the payment stream likely to come from MoD.
- Additional annual business rates of approximately £4,100,000 will be payable after the sale. Corporation tax will also, of course, be payable on any profits.
- Compensation payments will be due to affected landowners although the cost of this will be borne by Government. This is estimated at between £0 and £7,700,000.

A high level analysis would therefore indicate that any capital sum raised will be entirely dependent on the service payment payable by MoD and any growth expectations through increased commercial use. The MoD usage contract and the risk allocation therein will therefore be key to whether any sale goes ahead and, if it does, the size of the capital receipt. This conclusion is backed up by the Impact Assessment which concludes that maintaining the GPSS in public ownership provides best value for money in current circumstances but that changes to the MoD service charge and/or commercial revenue stream could change this. Work is ongoing to identify “restructuring opportunities” which could enable such a change. A cynic could look at this and simply see a leveraging of an artificially created Government revenue stream as a way to reduce the public debt in an “off balance sheet” way. We should therefore expect a debate similar to that around the “value” of PFI. This looks to be another fertile area for “debate” between HM Treasury and another Government department.



## Strategy and Policy Statement – Aligning Government and Ofgem

There is a sense that the roles of Government and Ofgem have become confused and that Ofgem's role has become much more complicated compared to the 1980s when it was introduced as the economic regulator. This has led to regulatory uncertainty. With increased Government intervention in the wholesale power market to deliver its desired policy goals this blurring and confusion becomes ever more dangerous. The Energy Bill therefore sets out a structure that contemplates a closer and clearer alignment as to strategy between Government and Ofgem (as the economic regulator) but without infringing the EU law requirement for Ofgem to be independent.

This is envisaged to be delivered by introducing a requirement for the Government to produce a new statutory document – a Strategy and Policy Statement. This will set out the Government's strategic priorities for energy policy, describe the roles and responsibilities of government, Ofgem and potentially other relevant persons and define policy outcomes that the Government considers Ofgem to have a particularly important role in delivering.

Ofgem and the Secretary of State will be obliged to act in the manner best calculated to further the delivery of these policy outcomes subject to ensuring the fulfilment of Ofgem's principal objective to protect the interests of existing and potential consumers. It is recognised that Ofgem may not be in complete control of delivering any particular policy outcome. If a policy outcome is not realistically achievable, Ofgem must give notice to the Secretary of State giving grounds for and specifying what, if anything, Ofgem is going to do to deliver the outcome so far as reasonably practicable.

### The Energy Bill includes:

- a power to designate a Strategy and Policy Statement;
- a duty to review a Strategy and Policy Statement every five years;
- a power to review it before the end of five years in certain circumstances, for example, following a Parliamentary election;
- duties on the Secretary of State and Ofgem in relation to the content of a Strategy and Policy Statement, for example, Ofgem to have regard to the strategic priorities section; and
- reporting requirements on Ofgem related to a Strategy and Policy Statement.

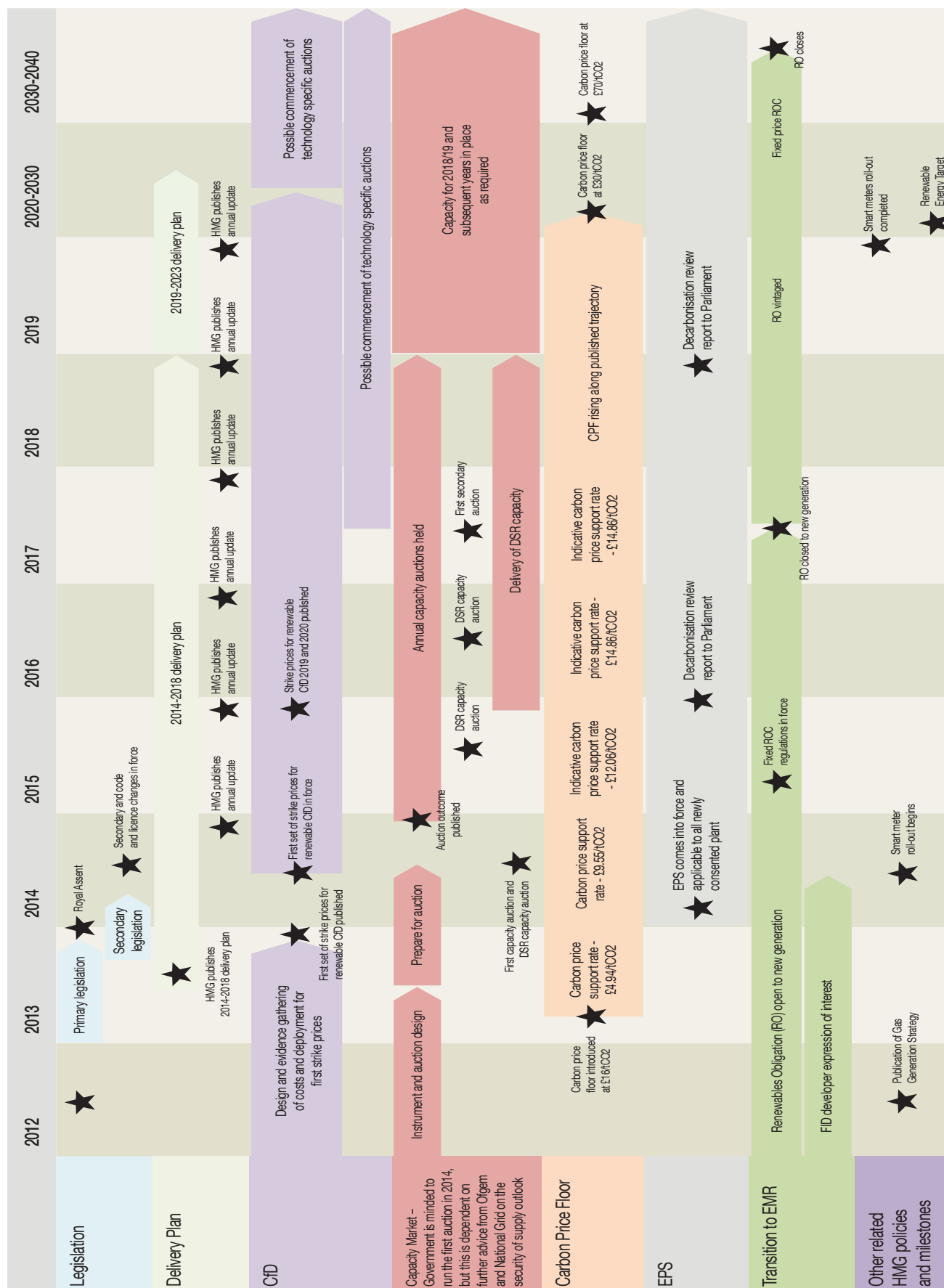
The duration of any Strategy and Policy statement is not anticipated to exceed the lifetime of a Parliament. This is much shorter than the gestation period of a major energy project and woefully short in comparison to the investment horizon of such projects. The arrangements around the Strategy and Policy Statements are therefore to be welcomed provided that they form the basis on which the Government clearly and unambiguously accepts change in policy risk in the CfDs (including its practical application through the work of the economic regulator and others) and are not a substitute for, or a justification for seeking to water down, such acceptance.

## OFTOs

The Energy Bill includes an amendment to the OFTO licensing regime intended to clarify that a developer who exercises the generator build option under the enduring regime is not in breach of the prohibition on participating in the transmission of electricity without a licence during the commissioning of those assets. However, the restriction of this exemption to the period before a completion notice is given, and for a further period of up to 18 months thereafter, until a sale of such assets to an OFTO, means that there could still be significant risk to a developer in the event of delays in the completion of the OFTO transfer process, depending on the stage at which a completion notice is given, the timing of which is not yet clear. If the completion notice is, as was suggested in consultation workshops, to be given at around the time of the interim operational notification, this could mean that a number of difficult and time consuming matters still remain outstanding and will have to be completed within the following 18 months.

4. The generator build option which was an option introduced into the enduring regime in response to developer representations during consultation.

## Indicative high level EMR timelines



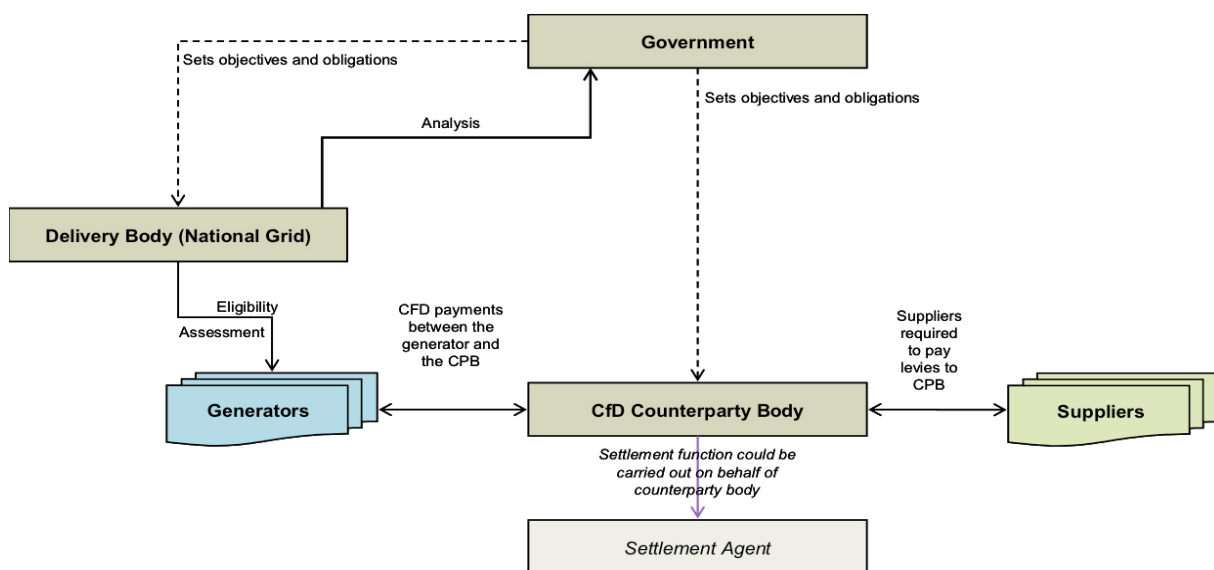
# Electricity Market Reform (Part 1 Energy Bill)

The Energy Bill continues to provide little detail in relation to the EMR. It is a framework which consists primarily of high-level enabling provisions, with the operative provisions to be contained in subsequent statutory instruments.

Alongside the Energy Bill, the Government has published an explanatory Electricity Market Reform Policy Overview document (attaching the Operational Framework for CfDs which sets out proposals on the key design features and a heads of terms for the CfD itself).

This section considers in greater detail the principal elements of Electricity Market Reform as outlined in Part 1 of the Energy Bill.

## Key institutional and legislative framework



## Contracts for Difference (Chapter 2)

**The Energy Bill will establish the legal framework that will underpin the implementation and operation of the CfD scheme. In particular, the Bill will:**

- enable the Secretary of State to designate a company or a public authority to act as the CfD Counterparty to each CfD (and establish the duties of that CfD Counterparty);
- enable the Secretary of State and ‘the System Operator’ (National Grid acting as the delivery body) to issue a direction to the CfD Counterparty to enter into a CfD contract with eligible generators;
- require the Secretary of State to provide for the Supplier Obligation to make payments to the CfD Counterparty so that it can make payments to generators under CfD contracts; and
- provide a power for the Secretary of State to set maximum costs and targets relating to CfDs, for example to prevent the issuing of further CfDs where these costs may be breached.

The CfD is intended to provide developers of eligible low carbon generation with a long term instrument that provides for a stable revenue stream, promoting investment in low carbon.

The CfD will be a long-term, bilateral contract between a CfD Counterparty (designated as such by the Secretary of State) and a generator. The Secretary of State is required to provide for an obligation on electricity suppliers to fund a CfD Counterparty (the **Supplier Obligation**).

We note that the revisions to the Energy Bill mean that (in distinction to an investment contract (see below)) a CfD is no longer statutorily required actually to be a contract for difference. However it is expected that the mechanism will generally work by setting a strike price in the CfD which will (for CfDs in the initial stage) be at a level administratively determined to be necessary to support the particular technologies supported by the scheme. Generators will sell their generation into the market and will be paid under the CfD (in addition to the revenue raised by the sale of such electricity) the difference between the strike price and a reference price. A reference price is a price which attempts to reflect the wholesale electricity price and implicitly should reflect the price the generator can realise.

When the reference price is above the specified agreed strike price, payments will be made by the generator to the CfD Counterparty. This is aimed at ensuring that consumers are protected from paying generators where the wholesale electricity price would still be sufficient to support the generator.

The Energy Bill sets out the Secretary of State’s power to make, by statutory instrument, regulations (**CfD Regulations**) to give effect to the EMR Goals. The Energy Bill provides that a statutory instrument containing CfD Regulations is generally subject to annulment by a resolution of either House of Parliament or otherwise will become effective after 40 days; however CfD Regulations (and any amendments thereto) relating to the Supplier Obligation (or payments from a CfD Counterparty to electricity suppliers) or the requirement for a CfD Counterparty to offer a CfD to an eligible generator (including the definition thereof) need the positive approval of each House of Parliament.

We examine in greater detail below the supporting framework for the CfD, comprised of:

- CfD price-setting and allocation
- the CfD Counterparty
- the Supplier Obligation

We then consider some of the key elements of the CfD contract itself.

The Government expects to publish the form of CfD in July 2013. This is expected to be largely standardised across technologies and will be informed by the Operational Framework.

## *CfD price-setting and allocation*

- CfDs will be allocated on a first come, first served basis provided there is an expectation of sufficient headroom in the overall budget envelope. If budgetary constraints are expected there will be a system of allocation rounds.
- Developers will be able to apply for a CfD at an early stage; for example, wind developers can apply once they have received planning permission and have agreed a network connection.
- Once the CfD is secured, the developer must, within a set period, prove significant financial commitment to moving the project towards construction.
- A developer will identify a Target Commissioning Date for a project, which will then determine its technology-specific Target Commissioning Window (TCW).
- CfD payments will not start until the start of the Target Commissioning Window (or the Target Commissioning Date if that is earlier). If a project is able to generate prior to the TCW, the developer can sell into the market prior to CfD payments commencing.
- If a project is commissioned beyond the TCW, the term of the contract will reduce by the length of any delay.
- If a project does not start by the specified long-stop date the CFD Counterparty may terminate the contract.

Generic price-setting and allocation processes are intended to apply to the majority of renewable energy projects. CfD strike prices will initially be set administratively by the Government (as is effectively the case under the Renewables Obligation) and published in successive EMR delivery plans. In time, it is envisaged that the administrative process will be replaced with competitive price-setting though there is not a firm timescale for this.

The price-setting and allocation processes for nuclear and CCS projects will follow similar principles, but the actual steps and timelines may vary to reflect the different technology and development characteristics. Further detail will be provided alongside the draft delivery plan in July 2013. In exceptional cases, the Secretary of State may allocate CfDs to individual projects to which the generic terms might not be suited and which will have to be individually negotiated.

For investment contracts, the approach to price-setting will be dependent on the technology and the scale of investment; but could include prices negotiated directly with individual developers, or prices set through appropriate competitive price-setting processes, or the Government could draw on published strike prices. Investment contracts are considered separately below.

## **Administrative price-setting**

The CfD strike prices will initially be set by the Secretary of State to support the EMR Goals and to reflect the construction and operating costs of each technology, and the cost of attracting finance to fund projects.

The System Operator, National Grid, will conduct analysis to inform the Government's decisions on renewables strike prices, which will draw on the data collected in the recent Renewables Obligation Banding Review. The System Operator issued a call for evidence on 9 October which includes a request for additional data to help inform price-setting for renewable projects commissioning from 2016 and information on other relevant economic assumptions which will inform the analysis required for the first EMR delivery plan.

The Government will appoint a Panel of Technical Experts to review and report on the System Operator's analysis and ensure that the System Operator's process is robust. The Secretary of State will also consult with the Devolved Administrations.

Draft strike prices will be published for consultation in July 2013 and actual strike prices for each renewable technology and for each of the five commissioning years from 2014/15 to 2018/19 will be published in the initial EMR delivery plan by the end of 2013. The final details of the allocation process, together with more information about the transition to more competitive forms of allocation and price-setting will also be published then.

## CfD allocation

### Eligibility

New CCS and nuclear generation, as well as those types of renewable generation which are currently able to receive support under the Renewables Obligation (RO), will be eligible for CfDs.

Projects that are able to receive support under the small scale Feed-In Tariffs (FITs) will not be eligible for CfDs.

Renewable energy generation already accredited under the Renewables Obligation will not be permitted to transfer to the new CfD regime.

New renewable generation plants are intended to have a one-off choice of scheme.

Further details on eligibility and the choice of scheme will be set out in the forthcoming consultation on the RO transitional period when generators will be able to choose between the RO and CfDs. This transitional period will run from when CfDs first become available (expected mid-2014) until the general closure of the RO to new generation on 31 March 2017.

The Government has determined that CfDs could in principle be used to support generation that is located outside of the UK. Generators outside of the UK are intended to have access to CfDs, where there is a clear overall benefit to the UK and it is technically possible to effectively implement and enforce CfDs in other jurisdictions. However, there are a number of issues still to be resolved, notably relating to contract design and regulation of the transmission connection. The Government will initially focus on arrangements for projects that can connect directly to the UK networks. See our comments below in relation to certain EU level considerations in this regard.

The System Operator in its capacity as the EMR delivery body will be responsible for administering the application system for the CfD. The System Operator will assess projects against the eligibility criteria and administer the allocation process for CfDs and – after determining which projects are eligible and within the budget envelope - will instruct a CfD Counterparty to offer to enter into CfDs with successful projects.

The allocation process will enable developers to apply for a CfD at an early stage in their project development. This means that CfDs will provide pricing certainty to developers earlier than under the RO. The revisions to the allocation process are a welcome change from the draft Energy Bill which envisaged this occurring at “financial close”.

To enable the System Operator to confirm that the minimum requirements have been met for a CfD to be issued, developers will be required to provide the System Operator with the following:

- Evidence that the proposed project uses an eligible generation technology and that the company proposing it is a legal entity that qualifies for the CfD scheme;
- Evidence that the project is at an appropriate stage, e.g. for wind projects a copy of the successful award of planning permission and a signed Grid Connection Offer that confirms that the grid will be developed at or before the ‘Target Commissioning Date’ will be required;
- A statement of the size of the project; and
- A statement confirming the Target Commissioning Date (TCD).

The TCD (together with the technology) will determine the appropriate CfD strike price to be awarded to the generator, on the basis of the most recently published delivery plan.



## Technology “Pots”

The Energy Bill provides a power for the Secretary of State to prevent the issue of new CfDs if a maximum cost has been reached. This reflects the agreement reached in the Levy Control Framework.

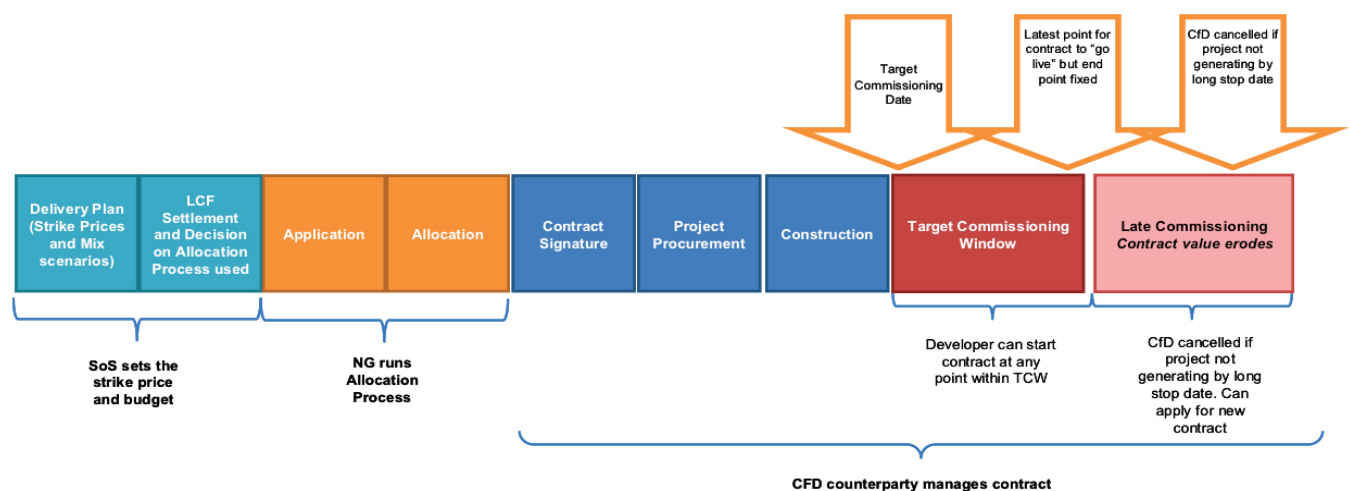
However, for so long as the System Operator has a high degree of confidence that the demand for CfDs in any given year will comfortably fit within the overall budget envelope, CfDs will be issued on a ‘first-come-first-served basis’. The Government will continue to work over the next six months with National Grid, the CfD Expert Group, industry and others to develop the criteria for assessing whether first-come-first-served allocation can take place for inclusion and consultation in the draft delivery plan.

When the criteria for first-come-first-served allocation do not apply, the System Operator will instigate a process of allocating CfDs through allocation rounds. The Government suggests a move to allocation using rounds might occur when it is expected that there will be less than, say, 50% of the CfD budget left remaining for each delivery year once CfDs have been allocated over the next 12 months. It is not clear to us that the reference to “each delivery year” is correct and we wonder if it should be “any delivery year”. Given there is also no defined LCF beyond 2020 there also seems to be some obvious lacunae in this formulation.

DECC anticipates allocation rounds would occur every six months with a four week application period. An objective methodology would be applied to identify successful projects where the budget envelope would otherwise be exceeded. The Government expects to finalise the design details of the allocation rounds system working with industry and others, and set the details out alongside the workings of the financial framework for CfDs in the draft delivery plan in July 2013.

The Government will divide its available budget for CfDs to reflect the rates of deployment for different groups of renewable energy technologies. As the majority of renewable energy technologies are expected to have relatively slow and predictable rates of deployment, these projects are expected to fall under one budget envelope – the ‘General Pot’. Technologies that are capable of more rapid deployment – biomass conversion and solar – will need to apply under a separate ring-fenced budget.

## Timeline for delivery of CfD generation



- **Evidence of Substantive Financial Commitment:** there will be an obligation on the developer to demonstrate that they have made a substantive financial commitment to the project within a defined period (perhaps 12 months). Failure to do so would normally lead to the termination of the contract; Government is minded to implement this policy through a minimum spend amount.
- **Target Commissioning Window (TCW)** will be set (on a prescribed technology-specific basis) around the nominated Target Commissioning Date (TCD). The developer will need to build and commission the facility within the TCW in order to benefit from the full term of the CfD. Commissioning after the TCW will reduce the term of the CfD commensurately (subject to the Long-Stop Date – see below). TCW durations will be set out in the EMR delivery plans and may vary by technology. The generator will not receive any payments under the CfD contract until the first day of the TCW, even if it commences generation before that date, but will be free to sell its power and generate revenues in the normal way.
- **Long-Stop Date**, which will be set (on a technology specific basis) based on the TCD in a prescribed manner, and by which time the developer is required to build and commission the facility (and meet the condition precedent), or have the contract terminated.

Projects that fail to meet the Long-Stop Date and have their CfD terminated will be able to apply for a new CfD (though this may result in the project failing to secure a CfD, or may result in the project receiving a lower level of support).

There will be limited relief from the consequences of failing to meet the milestones for demonstrating significant financial commitment, the TCW and Long-Stop Date, in the form of a force majeure provision in the CfD Contract. The Government is also minded (on the basis of the current late connection regime) to provide some flexibility to reflect the risk of failure on the part of a Transmission or Distribution Network to deliver the agreed connection.

The force majeure provisions in the CfD will be vital. In particular, given the possibility of a developer losing the CfD if a high percentage of the target capacity is not installed by the Long-Stop Date it will be important that the definition of prolonged force majeure (which also leads to a termination right) does not in credible practical scenarios cut across the protection offered by the day for day extension to the Long-Stop Date for force majeure events. It must also be clear that force majeure affecting the supply chain can also constitute force majeure for the generator.

The recognition that the Long-Stop Date may also be extended for delays caused by the failure of the transmission or distribution system operator to carry out reinforcement or connection works is helpful. This does however suggest that such failure does not constitute force majeure. If this is the intention then other interconnection/touching points will need to be considered, including unjustified actions of or other delays caused by regulators (this raises particular problems in the context of nuclear new build given the overwhelming importance of safety).

### Phased projects

Larger projects may not commission at a single point in time. The Government gives the example of offshore wind projects that require more than one summer of good weather to build out all the turbines for the facility. The Renewables Obligation regime allows offshore wind projects to benefit from phasing. The intention is also to allow projects to phase under the CfD, subject to them adopting appropriate metering arrangements.

Developers who wish to phase their project may either:

- submit a single application for a number of separate CfDs, with each CfD covering an individual phase of the project, with a different TCD, and the strike price that relates to each of these TCWs/phases; or
- apply for a single CfD which covers the whole of the capacity from all of the different phases of the project. The developer would then nominate a TCD that reflects the developer's own view of the TCW within which they would be able to commission the project's capacity.

### Amending the capacity of project

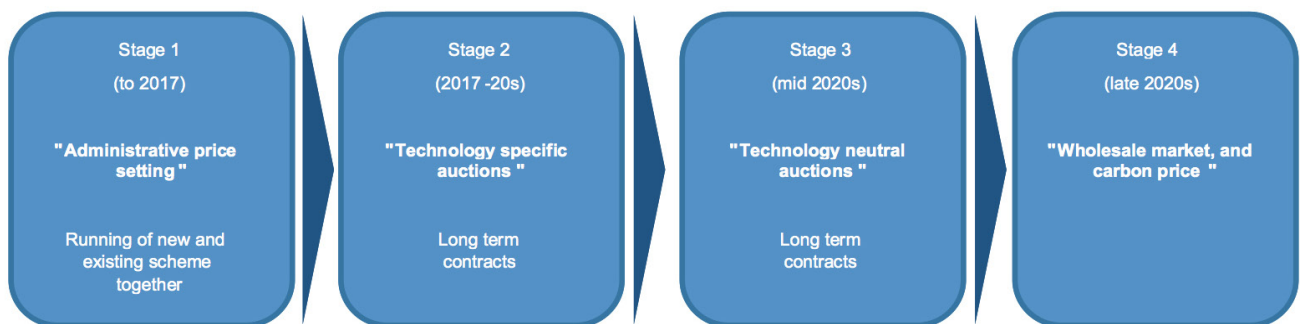
The CfD application process requires the developer to set out the intended installed capacity of their project. Confirmation that the installed capacity is not less than a very high proportion (e.g. 95%) of the contractually specified capacity is envisaged as a condition precedent to payments under a CfD.

The principal mechanism for developers wishing to increase their agreed installed capacity will be the ability to apply for an additional CfD.

However the CfD Counterparty should have the right to permit limited downward reductions in capacity, subject to certain conditions. These would limit reductions in capacity to those resulting from physical, rather than commercial, factors. The Government is concerned about projects effectively reserving (or ‘bed blocking’) the budget and thereby preventing other projects from progressing.

### Transition to competitive price-setting

The Government wishes to move to a competitive price-discovery process as soon as practicable and anticipates that the conditions for moving to technology-specific competitions for some renewables could be present as early as 2017; it is possible that the system could move to technology-neutral processes in the 2020s.



Given the EU 2020 renewables target and the different build times and stages of development of technologies, it is not thought appropriate to set a hard deadline for transition to competitive price discovery for all renewables; instead a phased transition is currently envisaged.

## *The CfD Counterparty*

- The CfD will now be a private law bilateral contract signed by a generator and a CfD Counterparty.
- The CfD contract is designed and set out by Government, not the CfD Counterparty.
- The CfD Counterparty is bound by the terms of the CfD. The CfD will set out circumstances where variations are allowed, where the CfD Counterparty has decisions to take and where there could be scope for discretion. Before the CfD scheme is implemented the Government will develop the processes for the CfD Counterparty to follow should such circumstances arise.
- Any guidance or requirement on the CfD Counterparty to consult, or seek the consent of, Government will not affect the rights of the generator under the contract.
- The CfD Counterparty is intended to be a Government-owned limited liability company.
- The Energy Bill also introduces a revenue raising power (the “Supplier Obligation”) which will enable the CfD Counterparty to collect money from licensed suppliers to meet the payments to generators under the CfDs.
- The CfD Counterparty or a settlement agent acting on its behalf will calculate what is owed and settle payments to and from generators and suppliers.
- It is anticipated that the running costs of the CfD Counterparty will be met by industry.

The move to a bilateral private law contract between the generator and a CfD Counterparty funded by suppliers is the most important structural change introduced since the draft Energy Bill. It is heartening that Government has been attentive to feedback on this approach.

The Energy Bill provides only that a CfD Counterparty (there may be more than one) must be:

- (a) a company formed and registered under the Companies Act; or
- (b) a public authority, including any person any of whose functions are of a public nature,

who has been designated as such by the Secretary of State and who has consented to such designation.

However, the Government has indicated that the CfD Counterparty will be a limited liability company owned by Government (though not guaranteed by it). The Government envisages appointment of the chair and a minority of the board of directors. For Government’s classification purposes it will be considered a public sector body as it will be set up and owned by Government, delivering a Government policy through the signing and management of CfD contracts, and it will have an ongoing relationship with the Government.

Once the System Operator has allocated a CfD contract, under the terms of the legislation the CfD Counterparty will be under a duty to offer (and therefore enter into) those CfDs. As the CfD counterparty is the signatory to these contracts, it is bound by the terms of the CfD. The CfD counterparty will not be able unilaterally to change the terms of the contract.

The contract will confer on the CfD counterparty functions and rights to take decisions, for instance on whether a generator has met conditions precedent, or on when a generator is required to post collateral, when to request information from a generator in respect of a project or when to agree an amendment or resolve a dispute with a generator.

The Government is considering what further guidance is necessary to the counterparty body on how it takes decisions in respect of CfD contracts (the extent to which it may be required to consult, or seek the consent of, Government before taking such decisions or, possibly, in some prescribed circumstances, where Government may direct the CfD counterparty to take a decision in relation to the contract).

It is clearly desirable that a cohesive and consistent approach is taken to a CfD Counterparty's portfolio of CfDs. Clause 11 of the Energy Bill envisages CfD Regulations including provision that a CfD Counterparty is required to consult with, or obtain the consent of the Secretary of State prior to:

- (a) enforcing obligations under a CfD;
- (b) a variation or termination of a CfD;
- (c) the settlement or compromise of a claim under a CfD;
- (d) the conduct of legal proceedings relating to a CfD; or
- (e) the exercise of rights under a CfD.

## Solvency and creditworthiness of a CfD Counterparty

The design and structure of a CfD Counterparty seeks to ensure that, as far as possible, it will be 'insolvency remote'. This will be particularly important if EMR based projects are to be financed in the capital markets.

A key element of this is that the CfD will set out that a CfD Counterparty is only obliged to pay generators what it has received in from suppliers pursuant to section 5 of the Energy Bill (funding of costs, reserves and CfD obligations) (the 'pay when paid' principle). Therefore, to the extent the CfD counterparty does not receive monies from suppliers pursuant to section 5, it will not be under an obligation to pay generators (until such time as the monies have been collected in full from suppliers). There is as yet no clarity on the approach to the apportionment of any shortfall, though it appears the Government is minded that a shortfall at a CfD Counterparty would be allocated pro rata to the CfDs, to which it is party. The 'pay when paid' protection does not look at the entire cashflow position of the CfD Counterparty (for example, there may be unfunded costs and it ignores the obligations a CfD Counterparty may have in respect of Fixed ROCs) and may therefore be flawed from an "insolvency remoteness" perspective. In addition, this approach raises the possibility that there could at the least be a delay in generators receiving part of the monies that they are due. (We assume that a similar provision will be included in a CfD Counterparty's obligation to pass to suppliers payments from generators, though this is not specifically mentioned.) Settlement arrangements will need to be considered to avoid subordination through timing.

This approach clearly promotes stability of the overall CfD regime. (We note that where a CfD Counterparty is a company owned by the Government no special insolvency arrangements will be applicable to it.) However, the possibility of a payment shortfall will obviously be a significant concern to investors, particularly given the likely need to achieve a high investment grade rating at some point for many EMR projects. This risk is to be mitigated by the following:

- Failure by a supplier to make a payment while otherwise solvent would be treated as a breach of its licence. The consequences for such a breach may include the imposition of financial penalties (of up to 10% of annual turnover of the licensee) and ultimately the revocation of its supply licence.
- Specific CfD collateral (by way of letter of credit or cash, but not parent company guarantee) requirements in favour of the CfD Counterparty will (pursuant to CfD Regulations, and through these the CfD in the case of generators) be placed on participating generators and suppliers to cover future payment (and possibly arrears) periods (which is similar to the Balancing and Settlement Code approach).
- Uncollateralised losses would be met through a mutualisation process, spreading the loss across all suppliers (similar to the arrangements that currently apply under the Balancing and Settlement Code).

- The CfD obligations of an insolvent supplier may be supported by the Supplier of Last Resort regime or the Energy Supply Company Administration Regime (see below).
- The Energy Bill also provides powers for the Secretary of State to transfer, in extreme circumstances, CfD contracts to a new CfD counterparty should it need to (and he is required to do so in respect of a CfD where the counterparty ceases to be a CfD Counterparty). Section 3 of the Energy Bill requires the Secretary of State, so far as reasonably practicable to maintain at least one CfD Counterparty.

The Government will consider further measures to underline the solvency of a CfD Counterparty as part of the detailed company design, such as restrictions on activities (e.g. borrowings or disposals) and distribution controls. The Energy Bill also gives the Secretary of State the power (but not the duty) to extend the Supplier Obligation to cover a CfD Counterparty's costs (and obviously it is important that adequate provision is made in this regard). Further, the Supplier Obligation may also be extended to enable a CfD Counterparty to hold sums in reserve (which would obviously be helpful if there is a working capital requirement).

There is clearly multi-layered protection for a CfD Counterparty to continue to make the due payments under a CfD and not require the pay when paid protection.

By elevating a failure by a supplier to meet its Supplier Obligation to being analogous to breach of licence, the “won't pay” as opposed to “can't pay” risk is obviously significantly reduced. If, however, a supplier is in the latter category, the requirement for collateral from suppliers may at least buy some time.

There is a power (though not a duty) in the Supplier Obligation provisions of the Energy Bill to require suppliers to make payments to a CfD Counterparty to cover losses in the case of insolvency of or default under the Supplier Obligation by an electricity supplier.

This mutualisation of losses could, if included in the CfD Regulations as seems to be the intent, give significant comfort to generators. However, suppliers will be concerned about the potentially significant exposure they may incur to each other under these arrangements. (The Secretary of State will be obliged to consult with suppliers in relation to, inter alia, the Supplier Obligation.)

There is a degree of mutualisation under the BSC due to the BSC Clearer having pay when paid obligations. However, these amounts under the Supplier Obligation could be very significant and as yet there is little visibility as to the way mutualisation would work and its interaction with the regimes for financially distressed suppliers referred to below. We also note that the BSC Clearer has access to liquidity through the Borrowing Account, whereas a similar arrangement does not appear to be envisaged for a CfD Counterparty (though note the ability to hold a reserve mentioned above).

The Supplier of Last Resort (SOLR) process can be instigated by Ofgem with respect to a supplier in financial distress and may facilitate the continued flow of CfD payments from consumers to generators in the event of supplier failure. This process allows Ofgem to revoke the failed supplier's licence and appoint another supplier to take on its customers. Subject to the detail of the Supplier Obligation, this taking on of customers would be expected effectively to result in the Supplier Obligation transferring going forward, as it is based on market share. However, it is not clear what the effect would be on historic Supplier Obligation liabilities of the failed supplier.

The SOLR arrangements have been tested several times over the last few years when small suppliers have failed. However, although the arrangements have worked well to date, experience has shown that there may be particular challenges in the event of a large supplier becoming insolvent because of the volume of customers involved.



This was the reason for the inclusion in the Energy Act 2011 of provisions relating to Energy Supply Company Administration (ESCA). These give the Secretary of State the right (but not the obligation) to petition a court to order an ESCA in relation to a financially troubled supplier. The key objective of an ESCA is to secure that energy supplies to customers are continued at the lowest practicable cost pending a sale of the supplier as a going concern or a transfer of all or part of the undertaking of the supplier. However, obligations under the Supplier Obligation do not appear to have any enhanced significance under an ESCA compared with other liabilities of the supplier. If the company (as licensee) is preserved as a going concern then it will presumably need to be in compliance with the Supplier Obligation; but such preservation may well not be the case if the focus is on a transfer of all or part of the business rather than the company itself. The Secretary of State may provide financial support to an ESCA, but is not required to do so. It is therefore possible that at least historic Supplier Obligation liabilities could be stranded in an ESCA.

In section 32 of the Energy Bill, the Energy Act 2004 is amended so that in an energy administration (which would apply to a TSO) maintains CfD (and capacity market) functions are added as a subsidiary purpose of the energy administration. However, the Government has not taken the opportunity to make corresponding amendments in relation to ESCA (so that Supplier Obligation liabilities would be prioritised).

Nevertheless, it seems to us that the envisaged arrangements have the potential to provide a high degree of comfort that, by effectively accessing the credit of the suppliers, a CfD Counterparty will be able to continue to make CfD payments to generators if appropriate regulations are promulgated and maintained. Many generators will of course already be taking long term risk on a supplier through their PPA.

The robustness of a CfD Counterparty to generator default, where reference prices to the above strike prices, will also need to be considered. Note that a CfD Counterparty will not be under an obligation to make termination payments under a CfD.

Finally, we would note that a CfD Counterparty may have other functions conferred on it under EMR, for example the purchase of “Fixed ROCs”. It is not clear that arrangements in such regard will be as robust as those described above, which could import vulnerability to a CfD Counterparty position.

## Accounting for the CfD

Government is working with generators to understand the potential accounting treatments and the materiality of any consequences, though it notes that while the reference price is below the strike price a CfD should not represent a liability.

Government also believes it likely that suppliers would need to recognise a balance sheet liability for future payments in connection with CfDs.

Interestingly there is no comment on the balance sheet position of a CfD Counterparty itself.

## Operational costs

While upfront costs of CfD Counterparties will be met by Government, it is envisaged that running costs of the CfD Counterparty will generally be met by electricity suppliers, as noted above.

At present, the heads of terms reflect only one instance where the generator may pay costs; that is the costs of responding to any notice of a change in law. We understand that this is to disincentivise generators from submitting claims that are not material in value.

### *The Supplier Obligation*

- The Supplier Obligation is a compulsory levy on all licensed suppliers in Great Britain and Northern Ireland;
- The Government is currently minded to introduce a variable rate obligation, meaning the precise amounts owed to generators over a specified period will be collected from suppliers as soon as possible after that period (rather than the obligation being at a fixed estimate rate with a reconciliation);
- The Government will seek to use existing data and mechanisms where possible to implement the obligation;
- Payment protections will be built into the system, including suppliers posting appropriate credit and collateral to cover the given settlement period;
- The Government intends to exempt Energy Intensive Industries from the cost of CfDs, through the supplier obligation. The scope of this exemption will be subject to consultation and it will be subject to State Aid clearance;
- The Government is seeking views on the impacts of the proposed approach to the supplier obligation on suppliers through a call for evidence.

The Energy Bill requires the Government to introduce a statutory obligation on suppliers to make payments to a CfD counterparty to fund the payments that are due under the CfD to generators. The contract with each CfD generator will determine the payments to be made, with the amounts owed by individual suppliers under the Supplier Obligation dependent on their market share. Market share will be based on volume of energy supplied. The supplier obligation will be a relevant requirement of each supplier's licence.

The detail of the supplier obligation will be set out in secondary legislation which will be laid before Parliament following Royal Assent of the Energy Bill. DECC will be obliged to consult with suppliers as to the terms of this.

The supplier obligation is a compulsory levy and is likely to be classified as a direct tax for the purposes of the Government administering its taxation programme. Therefore HM Treasury's tax-raising principles need to be considered in the design of the obligation to ensure an efficient approach.

The Government is minded to implement a variable rate obligation whereby the precise amounts owed to the generators under the CfDs in a given period (such as a month) are collected by the CfD counterparty from suppliers as soon as possible after that period and passed swiftly through to generators (rather than reconciling to fixed estimated payments).

The Government is seeking evidence from suppliers on how they may manage the variability in payment amounts that would exist under this form of obligation.

The settlement function is likely to draw heavily on data gathered through the Balancing and Settlement Code. The Government is considering whether it can benefit from these existing procedures and is minded to use Elexon as the settlement agent on behalf of the CfD counterparty.

The CfD counterparty will calculate the amount to be paid to the generator based on the reference price and strike price, according to the terms of each CfD. The CfD counterparty will also receive estimated supply data from all licensed suppliers, potentially through the Balancing and Settlement Code, to estimate the market share for each supplier for the relevant period. A mechanism is expected to be needed to "true up" any estimates and reconcile payments as data becomes more certain. The CfD counterparty will charge the suppliers the amount owed under the CfD in proportion to their market share.

It is expected that CfD payments will be made on a monthly basis and the suppliers (or generators should they be paying back) will be expected to make payments in arrears of the settlement date.

## Measures to ensure the certainty of payment

As set out above (Solvency and Credit-worthiness of the CfD Counterparty), a number of protections will be built into the proposed system to mitigate the risk that the CfD Counterparty does not have access to the monies owed to generators.

The Energy Bill enables regulations to provide that suppliers will be obliged to post collateral for the upcoming supplier obligation payment they are due to make. This will be a mandatory requirement and is likely to be set by the CfD Counterparty at a level that covers the upcoming payment period (or payment plus arrears period) of the individual supplier at any one point in time. It is likely that collateral will be required in the form of cash or a letter of credit from a creditworthy party. The amount of collateral required is affected by how often supplier obligation payments are made, for instance weekly or monthly, and how far in arrears the payments are made. It will also be effected by the relative levels of strike and reference prices, and may be difficult to predict. The ECC Committee raised particular concerns about the effect of collateral requirements on small suppliers. The Government is interested in receiving evidence about the impacts of posting collateral from suppliers as part of its call for evidence. Responses are due by 15 January 2013.

## Enforcement of the supplier obligation

The Government intends, pursuant to section 12 of the Energy Bill, to make the Supplier Obligation a “relevant requirement” under section 25 of the Energy Act 1989 (or the equivalent Northern Irish legislation). This means that a failure to comply with the obligation can be enforced by GEMA/NIAUR as if it were a breach of a supplier’s licence.

The CfD counterparty will have a number of mechanisms to manage general disputes on data and payments, and these will be designed as the secondary legislation is developed. There are precedents for this through the Balancing and Settlement Code and the Renewables Obligation.

## Exemptions for Energy Intensive Industries

The Chancellor announced last year an intention to mitigate EMR costs for Energy Intensive Industries (EIIs). It intends to exempt EIIs from the cost of CfDs, and proposes to do so through the operation of the Supplier Obligation. This is subject to further consultation and any exemption is also dependent on state aid clearance.

### *The CfD contract*

- CfDs will be implemented by means of a bilateral private law contract between the generator and a CfD Counterparty. Contractual arrangements should be largely standardised across technologies, but there will be some variations.
- Payments commencing under the CfD will be contingent on the generator meeting a milestone of “Substantive Financial Commitment” designed to ensure that construction commences in a timely manner and meeting a number of other conditions precedent.
- Entitlement to receive payments under the CfD will last for 15 years for renewables projects. The duration of CfD payments is to be determined for nuclear and CCS.
- Payments under the CfD will be made on the basis of net ‘green’ electricity that is generated and available for sale. Payments will be capped at an amount equal to the value of the CfD strike price even if the reference price is negative.
- The payment obligation of the single CfD Counterparty will be conditional on it having received payments from electricity suppliers under the supplier obligation.
- The reference price for intermittent generation will be the hourly, day ahead, ‘GB Zone’ Price expected to result from market coupling arrangements. The reference price for baseload generation is to be determined.
- The CfD strike price will be fully or partially index linked to CPI on an annual basis. Where the reference price is forecast to exceed the strike price, the generator must provide collateral to the CfD Counterparty.
- The CfD will provide investors with a degree of protection against certain changes in law and regulation. It will also set out a procedure for resolving disputes, informally if possible, or otherwise by an independent third party.
- The CfD Counterparty will have the right in prescribed circumstances, where the generator is in material default, to terminate the contract. A direct agreement may be available.

## Introduction

Under the Energy Bill a CfD is defined only as a contract between a CfD Counterparty and an eligible generator:

- (a) certain payments under which are to be funded by electricity suppliers; and
- (b) which a CfD counterparty is statutorily required to enter into.

Further details will be in the CfD Regulations, which will be made by statutory instrument.

The Government proposes that the CfD terms should largely be standardised across different low-carbon technologies. This reflects the Government's longer term plan to deliver least-cost decarbonisation by providing a framework in which technologies compete for CfDs. Contract provisions may, however, be varied on a technology-specific, or similar, basis to encourage a range of low-carbon technologies to come forward at a reasonable cost and in a manner that reflects distinguishable differences in risk profile. There will be a degree of distinction between intermittent plant and baseload plant, given their different characteristics and that variations are likely to be needed for early stage CCS projects. In exceptional cases the Secretary of State will have the power to allocate individually negotiated CfDs to particular projects.

Investment contracts entered into as part of the FID Enabling process may also require additional variation (e.g. additional conditions precedent relating to State Aid) due to the timing of the agreement of such contracts.

## Commencement and Term

As noted in the previous section 'CfD Price-Setting and Allocation' - low-carbon generation projects will be able to enter into a CfD at a relatively early stage, for example, for wind, from the point at which they have obtained planning permission and have (where required) accepted an offer for connection of the facility to the transmission or distribution network. There will however be subsequent "gating". The first CfDs are expected to be available in the second half of 2014.

To seek to avoid "bed blocking", delays and speculative projects the CfD:

- places an obligation on the developer to demonstrate "substantive financial commitment" (described further below) towards the construction and development of the facility within a set time period of signing the CfD, or otherwise risk termination of the contract;
- provides that the developer's entitlement to receive payments under the CfD (and its obligation to make them) is conditional on the developer satisfying a number of 'conditions precedent' relating to successful commissioning and authorisation;
- provides incentives for the developer to commission within the Target Commissioning Window; and
- permits the CfD counterparty to terminate the CfD if these conditions are not met by a defined long-stop date.

The CfD will place an obligation on the developer to provide evidence that it has spent a minimum amount on construction and development of the project, or that the project has reached a Final Investment Decision (that cannot be readily reversed). The Government will consider what constitutes acceptable expenditure for this substantive financial commitment requirement, the minimum expenditure required, and the time period afforded to the developer to provide evidence in support of that spend; it is suggested that this period could be around one year from entering into the contract. If the minimum expenditure has not been made by the designated time the CfD counterparty would be expected to terminate the CfD.

The Government wishes to ensure that consumer support is provided only for eligible low-carbon generation that has satisfied the necessary regulatory requirements and industry standards, and that can deliver the low-carbon electricity envisaged at the point the contract is allocated. Accordingly, the CfD will provide that the right for the generator to begin receiving (and, conversely, its obligation to begin making) payments is dependent upon the generator demonstrating fulfilment of a number of conditions precedent within the Target Commissioning Window. If the generator cannot satisfy all of the conditions within this Target Commissioning Window, the duration of payments under the CfD will be reduced by a period of time commensurate with the generator's delay in satisfying those conditions.

The CfD counterparty will normally terminate the contract if the generator is unable to satisfy the conditions precedent before the prescribed 'long-stop date'.

The conditions include:

- receipt of detailed planning permission and other required permits and consents;
- (for transmission connected generation) evidence that an Interim Operational Notification (ION) has been issued by the SO under the Grid Code Compliance Process;
- (for distribution or private wire connected generation) evidence that the Distribution Code Compliance Process has been satisfied and, as applicable, confirmation that an ION has been issued by the SO under the Grid Code Compliance Process;
- evidence that the CfD Counterparty or any settlement agent acting on the CfD Counterparty's behalf has the information it requires for the purposes of processing payments under the contract; and
- confirmation that the installed capacity at the facility is not less than a very high proportion, (95% is suggested) of the capacity specified in the contract (to mitigate the risk that a developer might deliberately overstate its installed capacity).

To allay developer concerns as to the consequences of failing to meet this last condition the CfD Counterparty will have the right to amend the 'contract volume' accordingly. These variations are likely to be subject to limitations that prevent increases in capacity above the agreed level, and which only permit significant reductions in capacity that result from physical – rather than commercial – factors. Firm proposals will be included in the draft delivery plan in July 2013.

The Target Commissioning Window regime will further heighten focus on construction delays. There are to be provisions to extend the Target Commissioning Window on a day-for-day basis where construction, completion, testing or commissioning are delayed by Force Majeure affecting the project.

Such force majeure excludes events or circumstances due to the fault or negligence of a generator's contractors or sub-contractors (it is not clear how force majeure affecting them is to be treated). It will therefore be important (if challenging) to achieve appropriate protection in relevant construction and supply contracts. We query whether this may be a fresh challenge to multi-package construction approaches. However, a failure by the connection contractor to carry out connection or reinforcement works in a timely manner (unless due to the fault of the generator or its other contractors) will give relief.

When considering the benefits of this approach we must also remember, however, that if there is "prolonged" (yet to be defined) force majeure the CfD Counterparty may terminate the CfD without compensation.

The payment term under a CfD is the period of time from the earlier of:

- (a) the date on which the conditions precedent are fulfilled and the generator gives notice, provided this cannot be earlier than the first day of the Target Commissioning Window  
and
- (b) the last day of the Target Commissioning Window  
until:
- (c) the last day of the contract term.

If the conditions precedent are not met by the end of the Target Commissioning Window the payment term will start to run, notwithstanding that no difference payments are being made.

The Government remains minded to set the payment term for CfDs with renewable generators at 15 years.

For Carbon Capture and Storage (CCS) projects supported under the Commercialisation Programme competition the duration of support will be ten years, or such other period as determined under the competition process. For other CCS projects, Government analysis suggests that support should be at least 15 years in duration, but the Government has said it will keep this under review in light of developing CCS financing routes and mechanisms.

The appropriate contract length that will apply to nuclear projects remains to be determined (it is not clear how many nuclear projects will be within a standard CfD in any event).

## CfD Payments

The contract will contain payment obligations on both the generator and the CfD Counterparty. These obligations will not become effective until the generator has satisfied the conditions precedent.

The contractual obligation on the CfD counterparty to make payment under the CfDs will also be conditional on its having received payment under the Supplier Obligation and its immediate liability will therefore not exceed the amount it has received under the Supplier Obligation in respect of the CfD.

The two-way difference payments for each settlement period will be based on price and volume variables and will be calculated as the amount that is the product of:

- (a) the metered output of the plant; and
- (b) the difference between the (fully or partially index linked) CfD strike price and the CfD reference price.

The actual amounts payable under the contract will be an aggregation of these difference amounts over a given 'billing period' – not expected to be more than monthly.

For payment purposes, the output of the plant will be capped by the 'contract volume'; that is, the maximum output (expressed in MWh per settlement period) that can be delivered by the contracted capacity (the level of capacity for which the contract has been allocated). Additional output would likely need to be supported by a separate CfD.

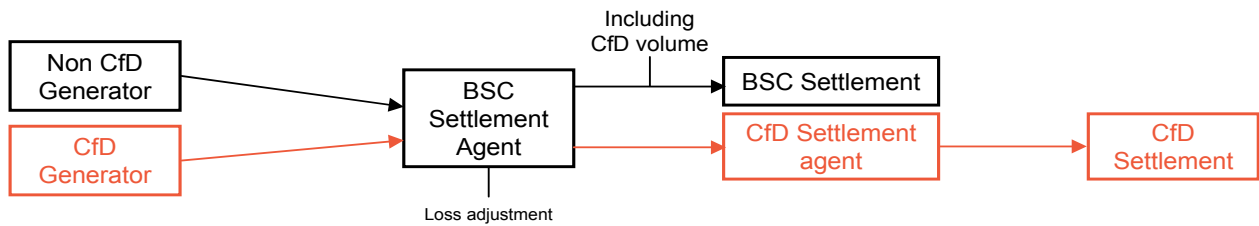
Payments under the CfD will be made on the basis of net 'green' electricity that is generated and is available for sale. Output will be defined as the 'loss adjusted net metered energy'. This is measured at the boundary point (and is therefore net of internal consumption) and is adjusted for transmission/ distribution losses. This would be scaled where appropriate to reflect low-carbon content in the case, for example, of eligible biomass co-firing or CCS-equipped plant.

Specifically, the Government is proposing that:

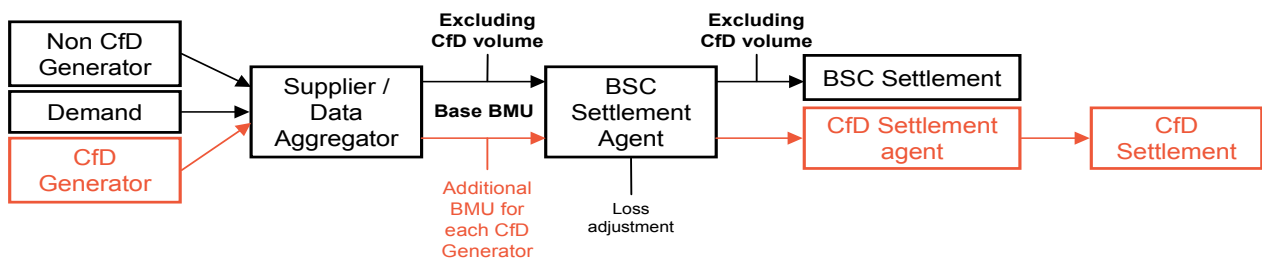
- existing data should be used to calculate the loss adjusted metered energy of CfD plants;
- where transmission connected, and some distribution connected, plants are registered with the Central Meter Registration Service, the loss adjusted metered energy of CfD plants will be calculated from data used for the purpose of settlement of imbalances under the Balancing and Settlement Code;
- other CfD plant connected to the distribution network will be required to register – via its offtaker - an Additional BM Unit under the Balancing and Settlement Code; and
- the loss adjusted metered energy of this additional BM Unit, as calculated under the Balancing and Settlement Code, will be used for the purpose of calculating CfD payments.



### Illustration of measurement of output from generators registered with the Central Meter Registration Service



### Illustration of measurement of output from generators registered as an additional BM Unit



Where CfD generation is curtailed by the System Operator, it should receive compensation through the balancing mechanism, rather than through a CfD ‘availability payment’ which had previously been postulated. The Government notes that compensation through the balancing mechanism delivers stronger incentives for prioritising the despatch of low-carbon generation, which is consistent with the UK’s renewable and decarbonisation targets.

In circumstances where there are negative reference prices, payments will be made on output at an amount capped at the strike price. A generator will therefore in these circumstances receive a net amount lower than the strike price where it captures the reference price.

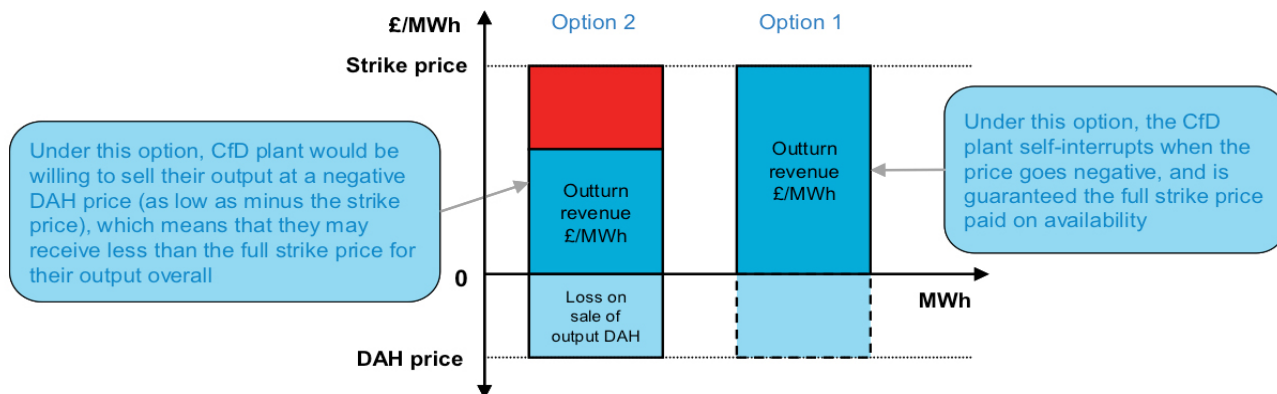
The original proposal had been that low carbon (in practice renewable) generators would be paid on an availability basis in these circumstances and therefore would be expected to receive the full strike price without generating. This was intended to mitigate the risk of spiralling negative prices. However, the System Operator has expressed concerns that this added complexity could produce a distorting “cliff-edge” effect with renewables plant switching off as soon as prices became negative. The new approach would smooth the “cliff-edge” and provide an ultimate floor determined by applicable strike prices.

This risk of negative day-ahead prices is obviously difficult to quantify accurately (though seems likely to increase as intermittent generation becomes more significant – there have been examples in continental Europe) and, in consequence, investors may take a conservative view when incorporating the impact of negative price periods on their business plans.

The Government acknowledges that this new approach will increase revenue risk to investors – as the stable revenue which is at the heart of the CfD proposition would not be guaranteed when prices are negative - and the difficulty of assessing accurately the magnitude of this risk. However, investors, subject to the terms of any PPA, will note a similar issue arises under the Renewables Obligation. This approach may be a further factor driving intermittent generators seeking financing to a PPA which may be able to mitigate concerns.

In the diagram below, Option 2 is now the preferred approach, replacing Option 1 from the Summer.

#### Settlement of CfDs in the event of negative prices



#### Reference prices

The reference price is a proxy for the market price of electricity and is used in the CfD to calculate the value of difference payments against the strike price. The reference price must be from a liquid and transparent market, reliable and robust against potential gaming.

Although the reference price itself need not necessarily be constructed in a way that allows generators to exactly match the reference price, it should be reflective of price levels that can be achieved by generators (through their route to market for the physical trading of their power), otherwise CfD strike prices may need to be increased to avoid shortfalls or the reference price may distort incentives to plant to operate efficiently.

For intermittent generation, the Government's view remains that the day-ahead 'GB Zone Price' should be the market segment from which the reference price is drawn.

This market is to result from market coupling arrangements scheduled for implementation in 2013. These arrangements are an integral part of the broader project, supported by the European Commission and other key bodies, to integrate national energy markets by 2014. In Government's view, intermittent generators operating on a merchant basis should be able to trade their power on a liquid and robust day-ahead APX or N2Ex auction, to achieve the reference price for their power at the point of sale (subject of course to forecasting and generating risk).

However, the Government acknowledges that smaller generators will in many cases not be able to participate directly in either exchange. They are nevertheless of the view that the CfD offers the potential for Power Purchase Agreements will therefore require to be simpler, more transparent and to support an improvement in the terms offered. Please see "Access to Markets (Chapter 6)" below.

The Draft Operational Framework from May 2012 set out that the Mandatory Auction proposed by Ofgem has been identified as a possible candidate for the CfD baseload reference price. However, GEMA has not yet taken a decision on intervention to improve liquidity and may decide not to introduce the auction.

Government is therefore considering with its advisers whether a basket of indices, drawn from different points on the forward curve, may provide a viable reference price for the baseload CfD. A decision on the reference price source for baseload generation will be set out alongside the final CfD contract in July 2013.

### Inflation indexation

The Government remains of the view that at least a proportion of the CfD strike price should be linked to the consumer price index (CPI) on the basis that it is an internationally established inflation measure which will be familiar and relevant to a wider range of investors. CPI is perceived as having advantages over RPI as a measure of macroeconomic inflation, and thus more suitable for inflating the strike price to reflect general changes in the economy. Given CPI was established, and is governed, by a set of legally-binding European regulations, it might be expected to be a credible, stable inflation index source over the longer term.

Although a basket of indices may provide closer correlation to the actual costs of a particular project that are subject to inflation; a basket approach is thought likely to be difficult to standardise across projects, administratively burdensome, more open to manipulation, and very difficult to hedge.

Institutional Investors have highlighted to Government that full indexation may unlock additional pools of capital and the Government is seeking evidence from investors in particular on the difference to their financing costs (and consequently the strike price required) for their projects under the scenarios of full and partial indexation for inflation. A decision is expected in 2013.

The Government is continuing to assess the value for money of providing indexation against fuel price movements within the CfD for projects supported by the CCS Commercialisation Competition as part of the negotiations with developers of these initial projects.

### Collateral Requirements

The Government remains of the view that in order to manage settlement risks effectively, and thus to ensure the sustainability of the scheme, both suppliers and CfD generators will be subject to collateral requirements. The risk of uncovered payments could decrease the perceived credit standing of the CfD counterparty, thereby affecting the confidence that investors have that they will receive payments under their CfDs and hence financing costs. There is of course the counterparty's cost of the provision of collateral.

Collateral requirements on suppliers will be imposed through the Supplier Obligation and enforced as a relevant requirement by Ofgem. For CfD generators the contract will include an obligation to provide collateral.

As regards the level of collateral, the Government remains minded that this should be equivalent to the generator's (or conversely, supplier's) anticipated payments under the contract (or under the Supplier Obligation) over a given period. The Government currently anticipates that this period may need to cover both the billing period and payment period. For CfD generators the requirement to provide collateral will therefore apply where the CfD Counterparty reasonably considers that the CfD reference price will be greater than the strike price over a given future period. The required amount of collateral would be equivalent to the anticipated payments due to the CfD counterparty for that period, which would be calculated on the basis of the projected price differential and a reasonable anticipated volume of generation.

Either cash or letter of credit from a qualifying issuer would be acceptable forms of collateral. However parent company guarantees would not, to maintain a level playing field. This seems implicitly to assume that the costs of collateral for all generators are equal.

The possibility that a generator may need to post collateral if the reference price exceeds the strike price may affect the funding plans for relevant projects. It is unhelpful to reduce available debt capacity for this purpose given the affordability objective. Depending on the final determination of the required size of the collateral this may turn out to be a de minimis issue however.

## Settlement

The Government's intention is that payments made under the contract (for example, from the CfD Counterparty to a generator), will not be made more frequently than payments made under the supplier obligation (for example, from suppliers to the CfD Counterparty).

However, the Government currently anticipates that the billing period is not likely to exceed one month, and as such payments under the contract would flow on at least a monthly basis. The Government remains minded that invoicing and reconciliation will follow the Balancing and Settlement Code Schedule.

The Heads of Terms provides an outline of provisions relating to issues including: the use of estimated data to inform payment where relevant information is not available; reconciliation in the event that information on a billing statement is subsequently found to be incorrect; and interest payable on late payments. The Government will undertake further work to develop the detailed settlement rules and processes – including timescales – that will provide for billing and the making of payments under the CfD and the Supplier Obligation.

## Change in Law

The scope of change in law protection in a CfD is of great importance. DECC has always maintained this would be the instrument under which the Government (or more latterly suppliers and their customers) absorbed policy risk. A contractual right (which the CfD now clearly is) may (subject to the ability of the counterparty to deliver) be more stable than one that derives only from legislation.

The approach outlined by the Government is that 'change in law' should be defined to cover not only formal changes in law but also a range of legislative and regulatory interventions and changes to industry codes. This avoids making a possibly artificial distinction between legislation and other 'quasi-legislative' changes. This is similar to the scope of "law" in a UK PFI transaction, but also extends to directly enforceable rights under international treaties to which the UK is a signatory (which may have some interesting implications).

However, not all such changes will qualify for protection under a CfD. Investors and developers are expected to carry out effective due diligence on the legislative and regulatory landscape, and so risks from 'foreseeable' changes sit with generators (e.g. current Code Reviews if not then implemented). In the interests of focusing the administrative role and resources of the CfD counterparty, it is also proposed that the risks of changes which are not considered to have a material impact (this is not to be defined, and as such is an obvious concern) on generators will also sit with generators.

Further, CfD generators are not to be protected from 'general' changes in law that apply across the economy or across the energy sector as a whole. The Government considers that while generators may need to price general change in law events into strike price expectations if they are left as uncovered risks, the wider long term indexed revenue protection offered by the CfD as a whole is a sufficient counter balance to any inability that a generator may have to pass through costs associated with a general change in law.

There will therefore be protection against specific and discriminatory changes in law. This is not an untypical approach; however, the Government's argument that wider protection may "discourage necessary changes in law that benefit consumers" is not wholly reassuring. Specific and discriminatory change in law will include those which apply specifically to: the particular CfD project; projects of the same or similar type; projects of a similar type that are subject to a CfD; or CfD projects as a class. While again the language is recognisable from UK PFI transactions, it is less clear that it is appropriate here. Great care will be needed in considering the definitions of these terms. For example the latest Spanish proposals for a 7% revenue tax for all generators are likely to disproportionately affect FiT renewables generators, but might not be 'discriminating'.

The Government is proposing that compensation for a qualifying change in law should be administered through an adjustment to the strike price as opposed to a lump sum payment. The Government is minded to develop a standard formula for calculating the adjustment to the strike price. If the CfD Counterparty reasonably considers it unlawful, impossible or impracticable for a party to recoup change in law costs over the remainder of the term by way of adjustment to the strike price (for example, because the change in law prevents generation and therefore no payment in relation to the strike price would be received), the CfD Counterparty must propose an alternative formulation in respect of the “lost” compensation.

The change in law provisions are designed to be symmetrical. Consequently, if there are material cost savings to the generator as a result of a change in law, there may be a downwards adjustment to the strike price.

The extent of change in law protection and the difficulties of defining “discriminatory” and “specific” changes which are not “foreseeable” and have a “material” effect will, as noted above, all no doubt be talking points for industry participants. However, we believe that there are a number of more fundamental questions which industry will likely need to consider carefully before getting to this greater level of detail:

- The protection implicitly assumes that only changes in law that have an impact on “net cashflow” are worthy of protection. This ignores the fact that there are certain base-line legal provisions which are likely to be a stop/go investment decision in the context of EMR. Given that a significant justification for the need for a CfD is to resolve these stop-go decisions, not offering protection against their change is, at best, curious.
- Perhaps the best example that applies to all technologies relates to the creditworthiness of a CfD Counterparty. The rules and regulations which backstop this are to be set out in secondary legislation (though some important principles, notably the purpose of the Supplier Obligation, are in the primary legislation of the Energy Bill). If these rules and regulations are changed during the life of the CfD they will not immediately affect the net cashflow of the generator, but will affect its credit profile. This could have implications for future financings and, more importantly, for future equity exits which allow initial investors to recycle capital to deliver programmatic development.
- We recognise the observations made by DECC in the response to the ECC Committee that a change in primary legislation would be necessary to remove the primary duty on the Secretary of State to ensure funding for the CfD Counterparty and that, equally, primary legislation could alter the terms of a signed CfD. However, at the launch of the initial consultation into EMR the Minister very clearly stated that the CfD would be the vehicle under which the Government accepted change in policy risk on a legally enforceable basis. Whilst this has not been achieved, we suspect that the proposed approach will nonetheless be acceptable to a wide range of investors (as has been the case with PFI and other UK Government-led capital procurements and investment in the UK utility sector), particularly those who come with investment treaty protection. Of course, significant comfort may be derived from the Government’s ownership of the CfD Counterparty (which is stated to be the intended position), but as noted above this is not entrenched as a requirement in the Energy Bill. It will be interesting to see whether sufficient confidence is achievable from the investor community that this approach will deliver the scale of capital required at an acceptable price.
- Compensation happens through the strike price. However, changes in law can also produce the need for capital investment. What is to happen if there are no providers of this new capital at the time (noting that, as one would expect, non-availability of funds is specifically excluded from force majeure in the draft CfD but more unexpectedly there is a duty to resume operation as soon as practicable after a change in law occurs)? Other government supported capital projects have included lender of last resort provisions in these circumstances.

## Termination

Although it is the Government's stated objective that low-carbon generation should be built and operated for the full term of the CfD, the intent is not to provide for termination of contracts as a result of generator performance issues that might normally occur during the life of a project. The loss of revenue seems to be seen as sufficient incentive, notwithstanding the potential inefficient use of LCF capacity. However, the CfD counterparty may terminate the CfD if:

- the developer fails to meet the development milestones set out in the contract;
- does not deliver the required capacity (unless prevented from doing so by physical, rather than commercial, factors); or
- does not commission the project by the longstop date.

There will only be limited flexibility afforded to the developer in respect of these key milestones, including provisions for Force Majeure and when delays are caused by a failure on the part of the Transmission or Distribution Network operator to provide the necessary connection assets.

In addition, a CfD Counterparty may terminate for typical events of default such as insolvency, non-payment (or credit support default), material breach or termination of key agreements such as the generation licence (where required), connection agreement, lease, planning permission or decommissioning arrangements.

The contract will afford generators remedy periods for most events of default and the Government is also minded to provide for a standard form CfD Direct Agreement which would be entered into with the funders of a low carbon generator (at present the Heads of Terms refer to a Direct Agreement in such form as the CfD Counterparty may approve). The direct agreement will provide cure periods and step-in rights. It is not clear that there will be transfer rights (but given the requirement for a generation licence for most projects, the most likely exit would be a share sale once the default is cured. The terms of share security will therefore be particularly important.).

Where events of default cannot be remedied and the termination right is triggered, the Government is proposing that the CfD counterparty should have the right to recover a lump sum termination payment (being the projected difference payments to be made by the generator over the remaining term of the CfD if any) by way of compensation, in order to protect consumers and suppliers from the consequences of termination.

The Government does not think that termination rights should also be available to the generator as a result of CfD counterparty default as it has express legislative support in meeting its CfD obligations and will have no further commercial incentive that might lead to non-performance under the contract.

The current version of the heads of terms for the CfDs provides that a generator must pay back, without delay, all amounts received by it in the event that the CfD is unlawful State Aid. As if it were in any doubt, State Aid clearance will therefore be a key deliverable from Government before developers incur significant cost in reliance on the current EMR package.



## Miscellaneous

### Representations

The CfD will provide that it will be a termination event in favour of the CfD counterparty if the generator's representations or warranties (for example in relation to its status and the legally binding nature of its obligations) are untrue (or materially untrue) when they are given or on the limited occasions that they are repeated (and remedial action is not taken).

However, we are concerned that the no litigation representation presently proposed in the CfD to be given at signing and repeated, *inter alia*, at the commencement of difference payments could leave developers as a hostage to fortune from NGOs and others who challenge planning or other consents awarded after they are issued but prior to the award of the CfD. This is likely to be challenging for developers of nuclear power plants.

### Transfer and Assignment

The CfD will provide that if a generator sells its plant, it must ensure that the buyer takes a transfer of the CfD; equally, in circumstances where the CfD counterparty is agreeable to the contract being transferred, that transfer must be accompanied by the sale of the plant to the same transferee. This seeks to prevent the generation asset being separated from the CfD.

The restrictions on transfer, we understand, are not intended to prevent a generator from using the plant as security in relation to financing or refinancing its business activities, nor prohibit arrangements under PPAs whereby payment flows are nominated to go directly to a third party (i.e. the PPA provider).

### Dispute resolution

The CfD will contain a staged dispute resolution process, whereby:

- senior representatives of both parties will first attempt to resolve the dispute informally;
- where this is not possible, the dispute will be referred to arbitration under the London Court of International Arbitration rules; or
- in limited cases, the dispute will be referred to an independent expert where this is considered to be more appropriate than arbitration.

Where disputes are referred to arbitration or expert resolution, the award or decision would be final and binding on both parties. Ultimately, either party could apply to the English courts to seek to enforce the decision of the arbitrator or expert.

It is also proposed there would be consolidation arrangements for expert or arbitral proceedings. This is clearly sensible since common issues could arise across all CfDs. It is not clear if it is envisaged that suppliers (who will ultimately fund any settlement by a CfD Counterparty) will have any standing in a dispute.

### Adjustment of reference price and other parameters

In order to ensure that the derivation of the price and volume variables applied in the settlement of the CfD remain valid over time, the Government outlined in the Draft Operational Framework that it was minded to include an ‘independent expert role’ within the framework, to review changes in trading or other market arrangements and advise whether consequent changes to the CfD terms are required.

There is little further visibility on this important issue. Imposing changes could obviously fundamentally affect generators’ cashflows. In addition it would be necessary for any changes in the reference price under a CfD to flow through into a new price under any PPA to avoid basis risk. Achieving this may be challenging. Further details are to be set out alongside the final contract in July 2013.

### Refinancing

The Government recognises constraints on the balance sheets of the “Big Six” and the importance of capital being refinanced and recycled into further investment. Capital markets take-outs of debt commitments are a particular focus.

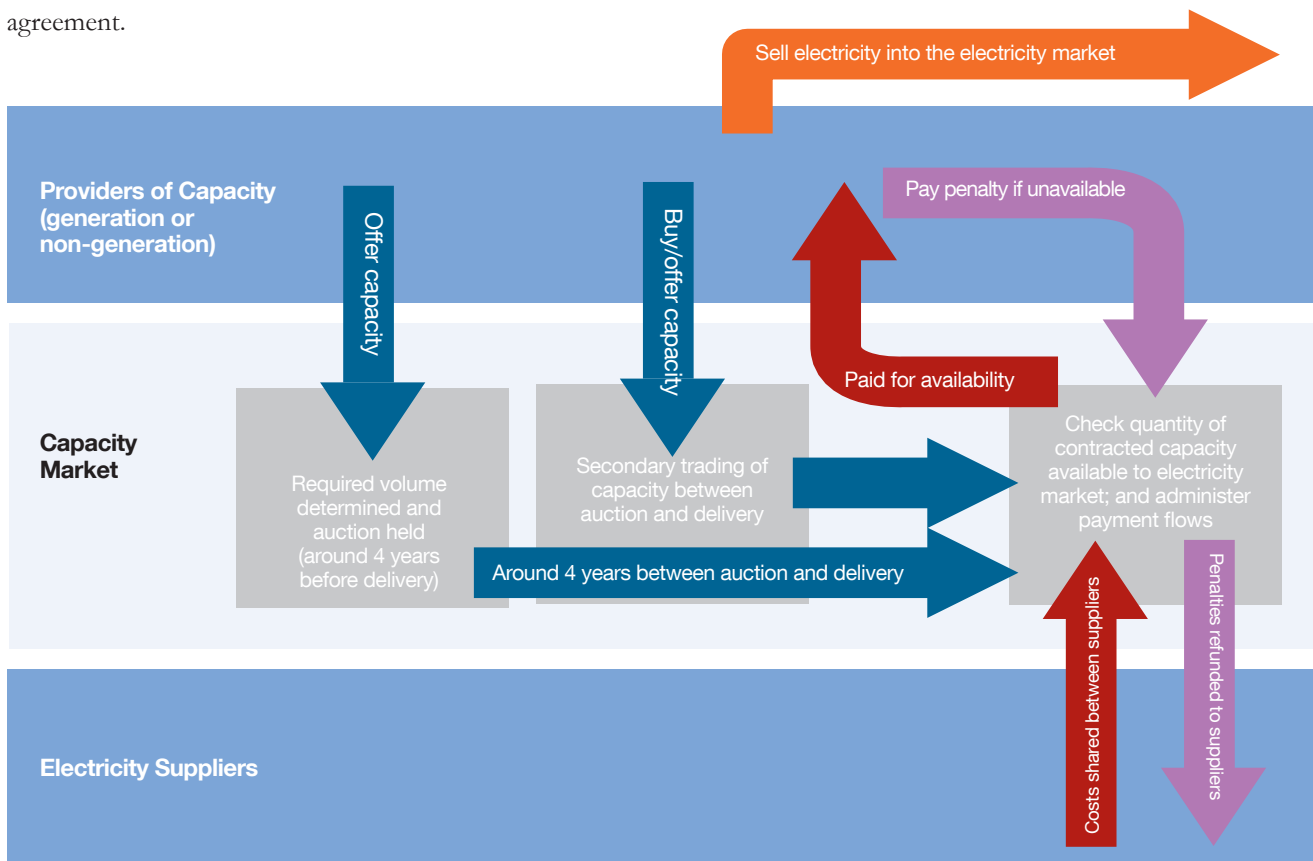
In light of political fall out from some PFI projects, the Government is also concerned by the risk that undue profit-taking by investors will occur if projects refinance once the risk profile of the project has changed. The Government is therefore considering whether the developer should take the full risk and reward of any refinancing, or share a proportion of any refinancing gains, and a position will be outlined in the final CfD in July 2013. Larger, complex schemes such as CCS or nuclear awarded through the FID Enabling process or CCS Competition may include refinancing clauses if the Government determines that they are the appropriate tools for managing risks in these contracts.

## Capacity Market (Chapter 3)

The Capacity Market remains subject to significant further detailed design development. These further developments will be important for the ability of the Capacity Market to play a significant role in the realisation of the Government's Gas Generation Strategy.

The Government recognises that the absence of clarity on the Capacity Market may create a disincentive to make investment decisions on a new plant until the Capacity Market is settled, which is not expected to be until later in 2013. It has therefore indicated that plants which begin construction between May 2012 and the first auction would be treated on the same basis as a new plant (if a distinction between new plant and existing plant is used in the Capacity Market), to seek to ensure that there is no disincentive for plants to be built before a Capacity Market is introduced.

The proposed length of contract is one year for an existing plant and between one and ten years for a new plant. It remains to be seen whether a ten-year term would be sufficient for a new plant to be built in reliance on the capacity agreement.



The structure of the penalties for non-delivery and whether there will be a cap on that liability will be of importance in determining the attractiveness of participation in the Capacity Market. Concern has also been expressed in impact assessments that there could be a risk of double liability under the penalty regime and under any contracts entered into to support the delivery of that capacity by secondary trading depending on how the penalty regime is structured. In the May 2012 paper, the Government moved away from the suggestion of a pure market mechanism and proposed combining market-based incentives (such as basing penalties on the price in a reference market) with physical checks to ensure capacity is in place. Government intends to develop the penalty regime in conjunction with Ofgem's further work on cash-out pricing.

The structure of the auction has not yet been finalised but the proposal is "pay as clear" for both new and existing plants, so that every successful provider would be paid the clearing price set by the most expensive successful provider that bid into the auction.

It has been decided that responsibility for the payments will be shared between electricity suppliers, through a settlement agency model with the settlement agent making back to back payments within days between suppliers and capacity providers. This is different to the counterparty model proposed for the CfD. The settlement agent model would be underpinned by collateral held by the settlement agency and by mutualisation of any payment defaults by a supplier so that other suppliers would be charged a proportionate share of a defaulted payment. Although this is not expressly stated in the documentation, we assume that the statement that this is different to the CfD model means that this is intended to follow a multi-party approach. We need to see the full details of this when it develops, but given that the Capacity Mechanism is anticipated to underpin investment in gas generation, consideration needs to be given to some of the difficulties of a multi-party model which were discussed in relation to the previous CfD counterparty proposals and which resulted in the rejection of a multi-party model for the purposes of the CfD. Please see our comments on the draft Energy Bill available at <http://www.allenoverly.com/UK-Electricity-Market-Reform> which include relevant observations in this regard.

Although the previous consultation paper in May 2012 suggested that the liability of suppliers to make payments could be based on a supplier's peak load in the delivery year (which would incentivise suppliers to offer different payment terms to customers to encourage demand reduction in peak periods), the consultation accompanying the Energy Bill lists a wider range of possible options for apportioning liability and a decision has not yet been reached. There are also provisions that would enable smaller suppliers to be exempted from the payment arrangements if considered appropriate. The May 2012 consultation suggested that penalty payments received from capacity providers would be returned to suppliers, but this is not elaborated in the consultation accompanying the Energy Bill.

The risk that capacity agreements may be awarded to providers who are subsequently unable to deliver capacity when needed (or cover any penalty payments incurred) is recognised. In addition to the penalty regime it is expected that some evidence of the physical backing of the capacity will be required to pre-qualify to participate and that there will also be requirements for the provision of financial support. However, the details of these have not yet been settled.

The intention is that demand side response (DSR) should participate in the Capacity Market on a full and fair basis but it is acknowledged that further work is required to set and verify reliable baselines for non-generation technologies and that there may need to be separate pre-qualification criteria for demand side participants. In the latest consultation the Government suggests that time-banded products, specifying delivery parameters such as duration and hours of operation may need to be developed for DSR and storage and this could be included in a secondary auction closer to the delivery year. The Government also says that it intends to run pilot auctions for delivery of DSR and Storage for delivery from 2015-18, (whereas the main Capacity Market is proposed to have its first auction in 2014 for a delivery year of Winter 2018-19).

The Government proposes to prevent a plant that receives an administratively set CfD from participating in the Capacity Market, as it thinks the administratively set CfD should provide a sufficient incentive for those plants. It does however note that in the future when the strike price for CfDs is determined through technology neutral auctions, the treatment of CfD funded plants in the Capacity Market may need to be revisited for investors signing CfDs after that point. The question of whether plants in receipt of RO support will be able to participate in the Capacity Market is not due to be decided until March 2013.

There is an interesting comment on interconnectors that, given the complexity of energy trading arrangements between markets, it may in practice prove too difficult for interconnected capacity to participate in the Capacity Market.

It is confirmed that the Capacity Market will be in addition to the Short-Term Operating Reserve market (STOR), but the interaction of the Capacity Market with the procurement of balancing services has not been fully resolved.

As previously stated the Capacity Market will not apply to Northern Ireland as there is a separate capacity mechanism as part of the all Ireland single market.

The Energy Bill contains enabling provisions allowing the Secretary of State to make regulations for the purposes of the Capacity Market (the first set of which regulations will require an affirmative resolution of each House of Parliament).

## Conflicts of Interest and Contingency (Chapter 4)

The current design of Electricity Market Reform envisages that National Grid, as the System Operator, will play a key role in administering the CfDs and the Capacity Market. There are valuable synergies from this approach. However, there is potential for conflicts of interest to arise with National Grid's existing roles in the energy market. The potential synergies and conflicts of interest are the subject of a consultation by Government, responses to which are required by 29 January 2013. A final report on conflicts, synergies and mitigations is due to be published in spring 2013. Any additional mitigating measures in relation to conflicts which are identified as being required as a result will be put in place via secondary legislation or by Ofgem and will be consulted upon at that stage.

Concerns in relation to conflicts of interest arise because National Grid PLC, the parent company of the System Operator, is a FTSE 100 Company with a range of business activities encompassing electricity transmission, gas transmission, gas distribution, electricity interconnection, gas storage and Liquefied Natural Gas facilities; and the System Operator will have EMR functions relating to:

- (a) the collection and analysis of evidence used by Ministers to inform EMR delivery and implementation;
- (b) the assessment of applications for CfDs and the consequent allocation of CfDs; and
- (c) the administration, if implemented, of the Capacity Market, including conducting pre-qualification processes.

Specifically, National Grid will have access to information which it would not normally have access to or information at an earlier time. It will have foresight of Government decisions and assumptions, access to information submitted by industry (qualification assessments and applications) and knowledge of the outcome of processes. It has been suggested that as a Transmission Operator, and as a result of information gained as part of the EMR delivery function, National Grid could anticipate where generators may wish to locate new generation assets and purchase land that it could then sell on at a profit or National Grid's gas businesses could benefit from privileged information in relation to the Government's intention in relation to future gas generation build. National Grid's interconnection business could benefit from advance information in relation to the Government's intention in relation to interconnection build or it could gain a competitive advantage from information in relation to the revenue of current interconnectors.

The System Operator will determine whether projects are eligible for CfDs, whether capacity providers meet the pre-qualification requirements for participation in any Capacity Market auction and may be able to determine certain details within the rules to be established for the operation of the Capacity Market. Although the System Operator's discretion will be limited to the extent that some of the above processes will be more in the nature of "tick box" processes and it will be subject to Government and Ofgem oversight, concerns remain. National Grid's Transmission Owner businesses could benefit if it takes decisions that favour new generation (resulting in new transmission business) over demand side reduction (that requires less network use); its gas businesses could benefit if CfDs are awarded to intermittent technologies that require more gas back-up plants; and offshore transmission businesses could benefit from the award of CfDs to offshore wind assets, which creates more opportunities to bid for offshore transmission licences.

The System Operator will also collect evidence and conduct analysis to inform Ministers in relation to EMR related decisions that they will make – for example, the volume of capacity to contract for in relation to the Capacity Market and strike prices for CfDs. It is thought that the manner in which the evidence is collected, collated, analysed, modelled and presented could influence Ministers to National Grid's advantage; its Transmission Owner businesses could benefit from emphasis on increased network build or on particular types of generation requirements; it could benefit from less emphasis on demand side reduction; and its gas system operation, transmission and storage businesses could benefit from over-estimation of capacity requirements or emphasis on intermittent generation technologies.

The Energy Bill includes powers, in section 29, to enable the Secretary of State to manage potential conflicts of interest of National Grid if this is considered to be necessary or desirable. Those powers include the ability by way of modification of the conditions of electricity licences and codes to separate the activity of system operation (which would include EMR functions) from any other functions. However, in determining whether separation is necessary or desirable, the Secretary of State must have regard to the extent to which it may affect the efficient and effective carrying on of system operation functions and other functions authorised under a transmission licence (subsection (5) of section 29).

Subsection (6) of section 29 gives a non-exhaustive list of the types of business separation measures which the Secretary of State could impose. These include:

- ring-fencing the provider of EMR delivery functions in a separate corporate body and limitations in respect of entities that may control or influence that body;
- separation between: locations where system operation functions and other functions are carried out; IT systems used for system operation functions and other functions; and accounting arrangements in relation to system operation functions and other functions;
- information barriers; and
- individuals who participate in system operation functions not participating in other functions.

It should be noted that the Secretary of State must carry out a consultation, before imposing business separation measures, with the holder of licences being modified, Ofgem and any other persons that the Secretary of State considers appropriate. Further, and in contrast to the May 2011 draft of the Energy Bill, section 44 provides that the Secretary of State may only make licence or code modifications if they are first laid before Parliament for 40 days and neither house disapproves of the modification during that time.

Interestingly, section 43 of the Energy Bill enables the Secretary of State to include in regulations under section 2 or 17 (Regulations to encourage low carbon electricity generation and Power to make electricity capacity regulations) provision that the System Operator (and its directors and employees) are not liable in damages for anything done or omitted to be done in the exercise or purported exercise of a relevant function specified in the regulations – being a function conferred by or by virtue of Chapter 2 (Contracts for Difference) or Chapter 3 (Capacity Market). However, no exemption may be given for an act or omission in bad faith, which is incompatible with a Convention Right under the Human Rights Act 1998 or failure to comply with an order under the Electricity Act 1989. It is not yet clear how this is expected to operate in practice – especially in relation to matters that may arise as conflicts of interest. However, this may become clear as the Secretary of State must publish a statement of the reasons why no exemption is in force if no exemptions is included in a relevant regulation when it is made or modified or a licence is modified in relation to CfDs or the Capacity Market. Furthermore, whilst presumably an oversight, it is noticeable that section 43 does not apply to the Authority (who could be allocated EMR functions pursuant to section 21) or Elexon (who may be asked to be the settlement agent for the CfDs (and presumably also the capacity agreements)).



In contrast to the exemption provision above, in section 30, the Secretary of State has the power to transfer the EMR delivery functions away from National Grid if:

- (a) the System Operator requests;
- (b) an energy administration order is in force in relation to the System Operator;
- (c) the System Operator has continued, 6 months after receipt of notice, to fail to carry out its EMR functions in an efficient and effective manner (in the opinion of the Secretary of State);
- (d) the Secretary of State thinks it necessary or desirable as a result of change in control of the System Operator; or
- (e) it appears necessary or desirable in connection with furthering the purposes of encouraging low carbon electricity generation or providing capacity to meet consumer demand in Great Britain.

The Secretary of State is required to consult the System Operator, unless the urgency of the case makes it inexpedient to consult.

The Secretary of State is also empowered to transfer the EMR delivery function back to the System Operator or to another person, subject to the same transfer conditions.

The ability to transfer to an alternative delivery body is bolstered by power given to the Secretary of State, in section 31, to require fees to be paid to an alternative delivery body for, or in connection with, the performance of any EMR functions.

Schedule 2 of the Energy Bill provides that a transfer scheme must contain provisions for the payment by the Secretary of State of compensation (in an amount considered appropriate) to any person whose interests are adversely affected by the scheme.

## Investment Contracts (Chapter 5)

The Government has recognised that lack of certainty as to changes to the market proposed under EMR could lead to investment decisions being delayed, and the Final Investment Decision Enabling Project was established to address this. An update on the FiD Enabling Project is promised for July 2013.

Accordingly, the Energy Bill contains provisions aimed at addressing the hiatus in low carbon electricity generation pending the CfD regime being implemented through the CfD Regulations. These provisions (i) will enable the Secretary of State to enter into “investment contracts” independently of the enactment of the Energy Bill (but prior to specified CfD Regulations taking effect (or by the end of 2015 if this has not then been brought into force)) which (subject as described below to the enactments) will be binding and similar to CfDs (but may differ in some of the terms, for example to reflect the fact that they may be agreed ahead of EMR legislation being in place and finalisation of CfD terms) and (ii) require any investment contracts entered into by the Secretary of State to be published and laid before parliament (including the strike price and reference price, but otherwise excluding information the disclosure of which would be likely to damage commercial interests). A statement from the Secretary of State that the contract will encourage low carbon generation that would otherwise be at best significantly delayed, is also required together with a summary of the regard that the Secretary of State has had to the EMR Goals. In a response to the ECC Committee DECC has indicated that in relation to Hinkley Point C it will further publish summaries of external advice it has received and a value for money assessment.

Clearly DECC is sensitive to earlier comments as to the lack of transparency in the process.

The Energy Bill now provides that an investment contract is a bilateral contract (which must be a contract for differences) between an electricity generator and the Secretary of State. The investment contract may be signed before the Energy Bill is enacted but the difference payments must then be conditional on the relevant provisions of the Energy Bill being in force. (Interestingly the language used suggests the difference payments under an investment contract would cease if the relevant provisions were subsequently repealed, which does not imply quite the insulation from change of law risk a separate contract was supposed to provide, and which may have implications for ECT or other investment treaty protection.) This is a change from the previous structure and may, for example, allow costs and indemnity provisions to take effect absent the passage of the Energy Bill. The overall approach reflects that of the CfDs and accordingly regulations made by the Secretary of State may make provision for electricity suppliers to make payments to the Secretary of State, an investment contract counterparty or a CfD Counterparty to enable payments to be made under investment contracts. Regulations in relation to the provisions of collateral for such supplier payments may also be made. The Secretary of State is required to consult with electricity suppliers before making such regulations. The provisions are on the same terms as the CfD Supplier Obligation (other than reflecting the wide range of counterparties to an investment contract).

There is provision for the Secretary of State to designate a person who meets the same requirements as for a CfD Counterparty (but who need not be a CfD Counterparty) as a counterparty to an investment contract and to transfer an investment contract to such a person. If the transferee is a CfD Counterparty the regulations may provide for the investment contract to be treated as a CfD.

The definition of “electricity generator” for the purpose of an investment contract covers not simply someone who is directly involved in the generation of electricity. For example, it will be possible to issue an investment contract to someone intending to establish, operate or participate in the operation of a new or altered electricity generation station or who has a freehold or leasehold in such facilities.

An investment contract may only be laid before Parliament in the following manner:

- (a) the Secretary of State must have laid the investment contract (with confidential information redacted) before parliament, following the introduction into Parliament of the Energy Bill; and

(b) the investment contract must be accompanied by a statement to the effect that the Secretary of State (i) considers that issuing the instrument would encourage low carbon electricity generation, (ii) considers that unless the draft is laid there is a significant risk that the electricity generation to which the instrument relates will not occur or be significantly delayed and (iii) summarises on the security of supply in Great Britain; likely costs to consumers and two duties under the Climate Change Act 2008 relating to the 2050 carbon target and carbon budgeting; and the target for the share of energy from renewable sources set out in Article 3(1) of, and Annex 1 to, the Renewables Directive.

If an investment contract is to be varied and such variation will in the opinion of the Secretary of State materially increase the likely cost to consumers of electricity, the varied investment contract (again with confidential information redacted) must be laid before parliament with a statement as to why, having regard to the likely cost to consumers of electricity, the Secretary of State believes the variation is appropriate.

An investment contract (and varied investment contract) must be published in the form laid before Parliament. The redacted confidential information cannot include the strike price or the reference price.

The Secretary of State may by statutory instrument make regulations and make further provisions about or in connection with investment contracts. Unlike in relation to CfDs, such regulations do not need to be for the purpose of encouraging low carbon electricity generation.

The Secretary of State is given powers to make modifications relating to, transmission and supply licenses to allow or require services to be provided to the Secretary of State, an investment contract counterparty or a CfD Counterparty or to enforce obligations under an investment contract.

In passing, we note that axiomatically the CfD Regulations may not have been finalised when an investment contract is entered into and therefore query how investors will get comfortable as to the practical operation of such contracts (though we presume the investment contract would give certainty as to key terms).

The initial counterparty to an investment contract will be the Secretary of State. The Energy Bill provides for funding for his obligations thereunder (once the Energy Bill is passed, which is a condition to the difference payments thereunder), or a levy could be raised on suppliers. The fact that there is at this point no Supplier Obligation does not matter to the generator (as he has Government credit), but a key issue will be any conditions in the investment contract to a transfer to an investment contract counterparty/CfD Counterparty. Clearly the generator will want comfort (as a condition to the investment contract being transferred away from the Secretary of State) that the Supplier Obligation and other elements of the framework are in place as it expected. Since these are not yet final, when an investment contract is entered into it is possible that there will be a mismatch of expectations, a slightly different type of change in law risk to that generally discussed in relation to EMR!

The other key issue is the strike price, which at least for nuclear seems likely to be negotiated on an installation-specific basis.

Generators have already expressed concerns that this arrangement may be vulnerable to a State Aid challenge. DECC has stated it is working to understand and overcome any State Aid issues. See the section on “EU Aspects” below. In the draft Energy Bill it was provided that the Secretary of State’s duty to issue an investment instrument was subject to him not considering that it would constitute State Aid. There are now no provisions in the Energy Bill relating to State Aid, but if the investment contract follows the form of CfD, State Aid risk would be placed on the generator.

Given that Hinkley Point C is a prime candidate for a bespoke investment contract, the Government will also need to tread carefully to respect its commitment to no public subsidy for new nuclear (in the sense of arrangements where similar support is not made available more widely to other types of generation). It may help that these arrangements will also be available for CCS.

It is less clear how the strike price would be determined for renewables investment contracts where there is to be an administratively set price specified in the first delivery plan.

## Access to Markets (Chapter 6)

Independent generation developers often rely on long term Power Purchase Agreements (PPAs) to secure the investment and finance they need. This is because debt investors and annuity seeking investors do not wish to expose themselves to a range of risks that may be acceptable to other persons. Examples of such risk include market price risk, change in law risk, imbalance risk and route to market risk. It has become increasingly difficult for such developers to attract offers of bankable PPAs. The Government believes that a competitive market should provide bankable routes to market for independent generation projects and wants to see a stronger, more competitive PPA market that can underpin investment.

The Department of Energy and Climate Change (DECC) published a Call for Evidence, which included initial options to address the issues in June 2012. The evidence received in response broadly supported the view of independent generators that the market has shifted in recent years and that independent generators are finding it difficult to secure PPAs on terms that are as beneficial as they used to be.

However, Government is unsure as to the extent to which independent generators will need to access PPAs in order to develop projects within the EMR regime. This is because the CfD is thought to absorb many of the more material risks that were previously the subject of reallocation under a PPA for, for example, an RO based project of a new build CCGT. They will therefore engage in some “market-led” work with independent developers, suppliers, potential aggregators and financial institutions around PPA availability to ensure that the PPA market is not an impediment to the development of a broad base of business models operating within the EMR framework.

At this stage, we consider it more likely than not that PPAs will be required for independent renewables generators for the following reasons:

- The cap on the strike price in a negative pricing environment leaves some market price risk with the generators. The materiality of this risk is hard to assess as the reference price does not exist yet in the absence of market coupling.
- The exposure to system operator action (you are not paid under the CfD if you are constrained off) may need hedging.
- A route to market is still required and a PPA may be the most efficient means of providing this.
- Imbalance risk will still need to be dealt with and this looks likely to become more important if the SCR on cash out reform results in a significant sharpening of cash-out prices.
- Developments in the bank regulatory system make it more likely that independent generators will need to structure their projects to obtain a high investment grade rating of at least A- or equivalent – this is likely to accentuate the need for a PPA.
- A PPA may reduce the all-in cost of funding for a development.

The Energy Bill also now makes strides in relation to the liquidity of wholesale electricity markets.

Liquidity is essential not only to promote a competitive market and bring down costs, but also to enable efficient functioning of EMR mechanisms. A liquid market is important to ensure that CfD strike prices are established on the basis of an efficient competitive market and to provide robust and realisable reference prices. Poor liquidity in the GB wholesale electricity market is also an important barrier to entry to independent electricity generators and suppliers. Finally, the existence of transparent, deep and liquid markets for wholesale electricity is also a necessary pre-cursor to allowing (part or wholly) merchant plant to be developed again and/or for financial intermediaries to start to offer long-term PPAs.

Ofgem believes that there have been positive responses to its challenge to industry to create more liquidity in the relevant markets, but that more is needed.<sup>6</sup> It therefore continues to develop its Mandatory Auction process to be introduced if it does not see enough voluntary action. The Government has, however, decided to back-stop this position and the Energy Bill therefore includes an important power for the Secretary of State to further intervene in the operation of the energy markets to seek to create liquidity.

## Renewables Obligation and Transition (Chapter 7)

The Energy Bill includes provisions enabling the Secretary of State to make a certificate purchase order to establish the Fixed ROC mechanism, which certificate purchase order may include a certificate purchase levy on suppliers. The certificate purchase order will require affirmative resolution of each House of Parliament.

The December Technical Update explained that the Fixed ROC is to be based on a supplier levy model where the purchasing body will buy the ROCs at a fixed price and levy suppliers to recoup the cost of the ROCs. Importantly, the December Technical Update said that generators should be able to sell the Fixed ROCs to a third person such as a supplier or aggregator who would then sell the Fixed ROCs to the purchasing institution, as well as being able to sell to the purchasing institution directly. This flexibility will fit more easily with the existing structures of power purchase agreements which provide for generators to deliver ROCs and other renewable benefits to the offtaker.

The Energy Bill now contemplates that the purchasing body, and the separate levy administrator, could each be a CfD Counterparty (whereas the previous draft just contemplated the Authority or the Secretary of State). However, payments received from the levy may only be used for the purpose of discharging the certificate purchase obligation.

The Fixed ROC will apply from 1 April 2027 to 31 March 2037. It was proposed in the December Technical Update that the price should be fixed as the buyout price plus 10 per cent headroom indexed on the same basis as the current buy-out price.

Generation commissioning between the introduction of the CfD and 31 March 2017 is to have a choice between the RO and the CfD. Government intends to consult on the regulations for the transitional arrangements in March 2013 and publish a response to the consultation in the autumn of 2013. Following any necessary revisions to the regulations, they are intended to be laid as secondary legislation before Parliament in early 2014 and are likely to come into force on 1 April 2014.

More details of the proposed transitional arrangements for the RO are described in the box on the following page.

6. <http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/Secure%20and%20Promote%20Consultation.pdf>

## *Transitional Arrangements*

### **Generation already accredited at the introduction of the CfD (expected April 2014)**

– will remain within the RO and will not have the option to switch. (Note that the FiT CfD is not expected to be introduced in Northern Ireland earlier than 2016.)

**Generation commissioning between the introduction of the CfD and 31 March 2017** – will have a one-off choice between the RO and the 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 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 CfD. (Additional capacity of more than 5MW that is added after 31 March 2017 will be eligible for the CfD. Additional capacity of less than 5MW will be eligible for the 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 expected generation plus 10% headroom until 31 March 2027;
- be based on “Fixed ROC” (proposed as the buy-out price plus 10% headroom) indexed on the same basis as the current buy-out price 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.

The ‘**Fixed ROC**’ is to be based on a supplier levy model where the purchasing body (the Authority or the Secretary of State) will buy the ROCs at a fixed price and levy suppliers to recoup the cost of the ROCs. Importantly generators should be able to sell the Fixed ROCs to a third person such as a supplier or aggregator who would then sell the Fixed ROCs to the purchasing institution, as well as being able to sell to the purchasing institution directly. This flexibility will fit more easily with the existing structures of power purchase agreements which provide for generators to deliver ROCs and other renewable benefits to the offtaker.

**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 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 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 CfD (subject to sterilisation on the same basis as sterilisation from the RO).



## Emissions Performance Standard (Chapter 8)

The Emissions Performance Standard will impose an “emissions limit duty” on the operators of new fossil-fuel power stations (and plants that undergo significant upgrades or life extensions) and associated gasification and CCS plant (as to the meaning of ‘associated’ please see below). The duty obliges such plant not to emit more than a specified amount of carbon dioxide (CO<sub>2</sub>) in each year of their operation, thereby reinforcing the existing policy (set out in national policy statements designated under the Planning Act 2008) that no new coal-fuelled plant should be built unless equipped with CCS.

Unlike most of the other EMR provisions, key details are proposed to be included in the Energy Bill as primary legislation, rather than subsequent statutory instruments. The EPS will be an annual limit, equivalent to 450g of CO<sub>2</sub> per kilowatt hour of electricity for a plant operating at baseload. This is below the level expected of new coal plant when operating unabated, which is nearly 800g/kWh. It is, however, above the level of modern combined cycle gas-fired power stations, which operate at below 400g/kWh.

The Secretary of State is to have the power to suspend or modify emission limits if there is an electricity shortfall or a significant risk of an electricity shortfall in Great Britain (subject to consultation with Scottish and Welsh ministers before the direction is given and to laying a statement of the reasons for making the direction before Parliament after the direction has been given). The Department of Enterprise, Trade and Investment has similar powers in relation to Northern Ireland.

Provision is also included in the Energy Bill to enable the Secretary of State to make regulations to apply the emissions limit duty with or without modification in a range of non- standard scenarios.

The limit is based on the individual plant’s installed generating capacity, a statutory rate of emissions and a load factor of 85%, and the provisions place a duty on operators not to exceed this limit in any one year.

The statutory limit is to be set at 450g/kWh until the end of 2044. The duty is applicable to fossil fuel plant of at least 50MW that are built pursuant to a relevant consent made on or after the date the EPS provisions come into force.

The regime covers plant which use fossil fuel but is not intended to cover generating stations which only make incidental use of fossil fuel for safety, start-up or stabilisation purposes (such as biomass plants): provision is therefore made (in subsection (7)(c) of section 38) for emissions from such use of fossil fuel to be disregarded for the purposes of the EPS. The regime does, however, cover generating stations using fuel produced from a gasification and/or CCS plant, and the associated gasification and/or CCS plant itself. Further provision may be made in regulations as to what constitutes associated gasification and/or CCS plant for these purposes, but it is intended that the regime will cover Integrated Gasification Combined Cycle (IGCC) plant as well as gasification plant producing, for example, hydrogen from fossil fuels as a fuel for a generating station which is not built as part of the generating station. In such a case, while the power station itself would have no CO<sub>2</sub> emissions, the emissions limit duty would ensure that the CCS plant supplying fuel to the generating station would have to apply CCS to the CO<sub>2</sub> that would otherwise be emitted as a by-product of the manufacture of non-CO<sub>2</sub> emitting fuel.

There is a power to exclude emissions associated with the supply of heat to customers from CHP plants.

Significant upgrades or life extensions of existing plant (other than to comply with EU law, retrofitting CCS or conversion works to facilitate the use of biomass) would also be subject to the EPS. So for example replacing a boiler or upgrading to supercritical technology could force an existing plant down a CCS route.

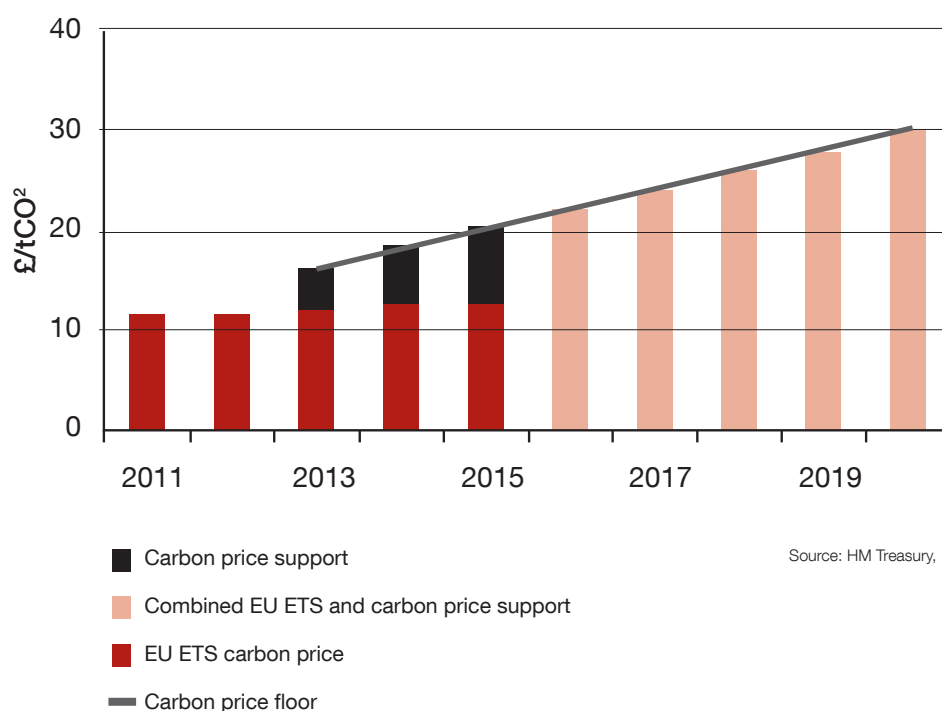
The EPS is set at 450g/kWh until the end of 2044. The Government will however review the EPS on a regular basis pursuant to the reporting requisites under the 2010 Energy Act. If it were to be deemed that changes for future plant were required (for example were sufficient new gas generation to be in place to maintain security of supply as older fossil fuel plant close), then such changes could be introduced but prior to the end of 2044 this would require primary legislation.

The Government now expressly acknowledges the importance of investment in new gas plant during the transition to low carbon. This in turn means giving comfort to such investors that the EPS will not be used to curtail the operational life of such plant. The compatibility of this time frame with the Government's objective of substantially decarbonising UK generation by the 2030s (which in itself represents a potential slippage of a decade compared with the Committee on Climate Change recommendation of 2030) is less apparent.

## Carbon Price Floor

The Carbon Price Floor is intended to complement the other elements of EMR, but being a tax is administered by the Treasury and has therefore been implemented outside the scope of the Energy Bill.

Carbon price floor illustration (in real 2009 prices and calendar years)



The Government announced in the 2012 Budget the 2014-15 rates for Carbon Price Support. A depreciating Euro and substantial over-supply of EU ETS allowances has reduced the Sterling equivalent of the forecast EU ETS carbon price compared with earlier expectations. The 2014-15 Carbon Price Support figures have consequently increased from the estimate for such period in the 2011 Budget of an equivalent of £7.28 per tonne of carbon dioxide to £9.55/tCO<sub>2</sub>. Indicative carbon price support rates for 2015/16 and 2016/17 were also announced in the 2012 Budget and these are equivalent to £12.06/tCO<sub>2</sub> and £14.86/tCO<sub>2</sub> respectively.

These figures are intended to maintain the UK's commitment to a sustainable and gradual increase in the tax-inclusive price of UK carbon to £30 per tonne by 2020 and £70 per tonne in 2030 (2009 prices). However, the above demonstrates the growing divergence between UK and EU carbon prices and points to increasing tensions between affordability/competitiveness and decarbonisation objectives. The Chancellor's 2011 Autumn Statement included a £250m package for energy intensive industries to mitigate the effects of EU and EMR policies (including the carbon price floor). As noted elsewhere, Energy Intensive Industries will also be excused from contributing to the Supplier Obligation.

However, following a call for evidence in March 2012, and taking account of European Commission guidance in relation to compensation for indirect costs of the EU Emissions Trading System, the government has designed eligibility and aid criteria for compensation for businesses, in Energy Intensive Industries in the UK, most at risk from such costs. A response to the consultation on eligibility and aid criteria is required by 21 December 2012. When adopting the 4th Carbon Budget, the Government announced that in 2014 it would review progress toward 2020 goals and if the UK's domestic commitments were found to place it on a different emissions trajectory than the EU ETS trajectory agreed by the EU, the UK would revise upwards the 4th Carbon Budget to align it with the actual EU trajectory. (More succinctly the Chancellor has stated that "We're going to cut our carbon emissions no slower but also no faster than our fellow countries in Europe".)

It is difficult to reconcile these statements with a mechanism that seems explicitly to promote different trajectories (absent a very different future path for Sterling EU ETS prices in future phases).

If there is an ongoing misalignment it also raises the question as to whether UK generators being "long" EU ETS allowances as a result of a rising carbon price floor, would in fact exert a perverse downward pressure on continental carbon prices. The EU "bubble" may become a balloon — merely squeezing one part might not be effective.

## Gas Generation Strategy

It is too early to declare the second UK dash for gas but there is certainly a growing excitement around the opportunities that may exist in the UK for investors in and supply chains to gas generation plant. The Gas Generation Strategy, unveiled on 5th December, makes it clear that gas generation will be part of EMR and, indeed, certain elements of EMR are being shaped with gas generation in mind. Indeed, it is explicit in recognising the value of gas generation as flexible plant available to meet “the intermittency associated with renewables, providing back-up energy particularly in times of peak demand and low renewable generation”.

But, from an energy perspective, the Gas Generation Strategy goes much further setting the base-line for a proper consideration of the exploitation of the UK’s shale gas resources. This is of course relevant to at least one of the EMR Goals, energy security and, depending on developments elsewhere in the world, potentially also affordability.

The Gas Generation Strategy is also at the heart of the political debate about including a decarbonisation range requirement in the Energy Bill. As noted elsewhere, the Energy Bill will be amended during its passage through Parliament to include a power to set such a decarbonisation target for the energy sector by 2030 through secondary legislation. This power will not however be exercised until the fifth Carbon Budget is set in 2016 and the debate around the appropriate level continues. The Gas Generation Strategy sheds some more light on the debate that lay behind this peculiar position:

- Government analysed the possible shape of the UK electricity market on 3 bases:
  - A trajectory to around 100g CO<sub>2</sub>/kWh of grid emissions intensity in 2030 (this is of course the central assumption used consistently in the analysis of EMR by DECC);
  - A trajectory to around 50g CO<sub>2</sub>/kWh of grid emissions intensity in 2030 (reflecting the level advised by the Committee on Climate Change as being appropriate for 2030); and
  - A trajectory to around 200g CO<sub>2</sub>/kWh of grid emissions intensity in 2030 (taken as a proxy for a scenario in which the 4th Carbon Budget is revised upwards following the 2014 review in line with a continuation of EU ETS’s current trajectory).
- The 4th Carbon Budget covers the period 2023-27 and was fixed in law in June 2011. It requires emissions to be reduced by 50% below 1990 levels and assumes a split between those that will fall in the traded sector and those that will fall in the non-traded sector. The current EU ETS cap is not obviously aligned with the necessary emissions reductions to meet the assumption in the 4th carbon budget. The Government therefore believes that an amendment to the Carbon Budget may be required so that our domestic commitments match the ones agreed by other EU states under the ETS (whilst not explicit this is clearly so that competitiveness is not harmed through the higher cost of decarbonising quicker than our industrial neighbours), and this was the basis on which the 4th Carbon Budget was adopted. This will be reviewed in 2014 and, if change is to be made, will require Parliamentary approval. The 200g trajectory above reflects the likely change if the EU ETS is not tightened such that an amendment to the 4th Carbon Budget is required.
- Not surprisingly, gas has a much more significant role in higher carbon trajectories. This is because it would not be crowded out by subsidised lower carbon technologies where the policy ambition of decarbonisation is less aggressive. In fact, the Government’s assessment is that in each of the trajectories there could be the following amounts of new CCGT capacity in the UK installed from now until 2030 (including plant presently close to commissioning):
  - 50g trajectory – 19GW (average load factor 15%)
  - 100g trajectory – 26 GW (average load factor 27%)
  - 200g trajectory – 37 GW (average load factor 43%)

There is therefore a significant swing in volumes required depending on the policy outcome. The Gas Generation Strategy highlights uncertain load factors as a key barrier to investment and there is a risk that this will remain until there is greater clarity on policy in 2014.

- Much of this new capacity will be needed in the 2020s but its forecast capacity factors are unclear as they are affected by many factors including:
  - The success of EMR in attracting investment for large scale renewables and nuclear new build.
  - The relative proportions of such low carbon intermittent and inflexible plant in the UK fuel mix.
  - Developments in the interconnector, storage and demand side markets.
- When this uncertainty is taken together with the poor investment climate for gas plant today caused by:
  - Low spark spreads caused by the flood of cheap US coal as a result of the US shale gas revolution;
  - Inadequate cash-out mechanisms such that power shortages are not appropriately compensated;
  - Difficulties for independent generators in finding PPAs or tolling agreements from creditworthy offtakers;
  - Difficulties in accessing long term project finance debt,

it is clear that the same or similar market failures exist for the investment in new build gas plant in the UK as exist (and form the justification for intervention to support) for large scales renewables and nuclear plant. It is no surprise therefore that many of the non-CfD mechanics already contained in the draft Energy Bill and discussed earlier in the consultations are relevant to supporting investment in gas generation.

- The Gas Generation Strategy therefore notes that:
  - The cap on the Levy Control Framework out to 2020 is sustainable and affordable.
  - The UK's approach to decarbonisation trajectories will continue to stay in step with other EU countries throughout the 2020s and consistent with a least cost approach to our legally binding 2020 decarbonisation objective and the 4th Carbon Budget.
  - The Capacity Market will be used to support investment in gas generation and that any plant that begins construction between May 2012 and the first capacity auction will be eligible to participate as new plant (should the Capacity Market differentiate between new and existing plant).
  - The powers introduced into the Energy Bill in relation to ensuring liquidity and markets for PPAs may be used to support investment in gas generation.
  - The EPS effectively supports gas relative to coal as it effectively prohibits unabated coal but does not prohibit unabated gas.
  - The Government is supportive of Ofgem's decision to conduct an SCR on electricity cash out arrangements.

The Gas Generation Strategy goes further however and seeks to put in place measures that allow gas generation to contribute to the energy security aspects of the EMR Goals. In 2011, approximately 95% of our gas imports came from 4 countries (Norway (41%), Qatar (40%), Netherlands (12%) and Nigeria (2%)). The Gas Generation Strategy explicitly commits to “capitalising on the UK’s strength as a gas trading hub and developing our role as transit route for gas from global markets to enter North West Europe”. There are 5 areas identified as being important to this:

- Exploitation of unconventional gas sources;
- Increasing the reliability of gas supply through strengthened infrastructure and bilateral trading links;
- Promoting diverse and efficient gas markets (pleasingly, the importance of the Southern Corridor is recognised with an explicit mention);
- Working to enhance gas price stability; and
- Pressing for restrained global gas demand (via energy efficiency, low carbon alternatives and phasing out fossil fuel subsidies).

It will be interesting to see how the UK’s current position in the EU allows it to meet these ambitions on anything other than a national level. Perhaps it is about to fire the same race to the bottom it fired over low carbon investment with a statement along the lines of: [“In the new, reformed UK electricity market, the economics of low carbon will stack up like nowhere else in the world”], but this time in respect of investment in gas infrastructure. An early signal of the direction of travel will be the findings of the UK Government to be published in Spring 2013 as whether there is a case for further measures to encourage gas storage and the evolution of the support regime for unconventional gas in the UK.

In relation to unconventional hydrocarbons, DECC is to establish an Office for Unconventional Gas and Oil so as to join up responsibilities across Government and provide a single point of contact for investors and ensure a simplified and streamlined regulatory process. Such an approach, alongside other supporting measures, has undoubtedly helped drive forward the civil nuclear power industry.

This approach is important so that we can move from our current level of knowledge, that very large quantities of gas exist in the shale beneath the UK, to understanding what fraction could be produced. Some of the relevant considerations will be:

- Whilst some features of the geology of the UK are positive (eg lateral continuity) other characteristics are not well defined yet (eg organic content).
- Can European production costs fall to similar levels to those in North America?
- Does the population density in the UK simply make it too difficult to develop shale gas?
- Can environmental concerns be acceptably met through best practice such that previous instances of unsatisfactory construction of wells and contamination caused by leaks and spills from surface facilities are avoided.
- What is the carbon footprint of shale gas use?

Government will therefore also be consulting on an appropriate fiscal regime for shale exploration, on an appropriate pattern of licensing and on an updated Strategic Environmental Assessment for further onshore licensing.



## EU Aspects

As we commented in our review of the White Paper, and in our review of the May draft bill, EMR raises a number of European legal issues, not least the compatibility of the CPF and the CfDs with the European state aid rules. Even if government contends that the proposed measures are intended to promote longer term security of supply, de-carbonisation and affordability, and are as such intended as ‘corrections to market failures’, this will not necessarily lead to Commission acquiescence. As we have previously argued, obtaining state aid clearance for the proposals could be challenging.

Various hurdles are still to be dealt with. The Energy Bill and the documents setting out in more detail the Government’s proposals on the delivery of EMR indicate that discussions with the European Commission are ongoing. Although the declared strategy has been to design the system (i.e. EMR mechanisms and institutional arrangements) to ensure that EMR policies are compliant with state aid rules, the EMR mechanisms must also be designed to reflect the rapidly mushrooming number of binding European network codes on capacity allocation, congestion management, balancing, tariffs, and transparency. These codes hard wire the European target model for the completion of the internal electricity market by 2014.

State aid clearance remains an ongoing issue, and it will be recalled that a number of major energy companies had concluded that the state aid hurdles facing the implementation EMR would do little to improve investor confidence.

Unfortunately it is not possible to get Commission clearance for any restrictions on the Treaty free movement rules. These rules are directly effective and binding, as are the internal regulations and the new generation of network codes. Unlike European state aid policy their application or non-application, as the case may be, is not one of opaque negotiation and horse-trading. The Treaty free movement rules as well as the internal energy market legislation are enforceable in national courts and tribunals and before national competition and regulatory authorities. The government claims that both the CfD and any Capacity Market mechanism will be designed to be ‘robust to developments in European and domestic electricity markets’ and ‘we will consider how to include European generation in these’.<sup>7</sup>

Presumably, in the EMR all things not domestic are ‘European’, but in terms of the legal enforcement of EU energy legislation, this is a rather meaningless distinction – a point we return to below.

The Government has determined that CfDs could in principle be used to support generation that is located outside of the UK. Generators outside of the UK are intended to have access to CfDs, where there is a clear overall benefit to the UK and it is technically possible to effectively implement and enforce CfDs in other jurisdictions. The Government will initially focus on arrangements for projects that can connect directly to the UK networks.<sup>8</sup>

## The Energy Bill – State Aid Issues Acknowledged

The areas where the Government had already acknowledged in its draft Bill that state aid clearance would need to be considered going forward included:

- (a) exploring options for reducing the impact of electricity costs arising as a result of electricity market reform policies and potentially costly environmental legislation, including with respect to CfDs;
- (b) varying CfDs for different technologies. Although the CfD will be largely standardised across technologies, the Government continues to accept that variations will be needed for intermittent and baseload generators in recognition of their different risk profiles;

7. See paras 116 to 120 of the ‘Policy Overview’ document.

8. As noted above there are a number of issues still to be resolved in relation to the eligibility of non-UK based generators, notably relating

- (c) considering the issue of investment instruments on terms and conditions as the Secretary of State considers appropriate in advance of the implementation of CfDs. This is reflected in the Energy Bill legislation at section 15(6) which provides that the Secretary of State may not issue an investment instrument if such an issue would constitute a grant of state aid. This is further confirmed in the explanatory notes to section 15. The preferred option is to issue investment instruments before EMR is fully implemented, but again with price and contract terms conditional on any necessary state aid approvals being granted; and
- (d) considering the provision of a flexible mechanism to review the strike price after the award of a CfD to CCS projects and in the price setting process more generally.

This list is still open.

The government indicated at the time that it was working closely with the European Commission on the interaction of EMR with the wider EU legal framework, to ensure that EMR policies are consistent with European secondary legislation, as well as the Treaty rules on state aid. This process appears to be ongoing. The Bill and the accompanying documentation do not suggest at any point that the Commission has ‘signed off’ on any of the open state aid issues – either by confirming that the state aid rules would not apply at all or by suggesting that it would find the measures to be compatible state aid.

#### *New aid measures?*

Indeed the Energy Bill introduces a number of new elements which may raise additional state aid issues:

PPA Availability – a new power that will potentially allow the government to intervene and modify electricity supply licences and industry codes to remove barriers to entry associated with the PPA market is now included in the Energy Bill to ensure that a market for suitable PPAs develops. Government intervention may however have to be framed in the light of the EU state aid rules.

For example, in the past, the European Commission has condemned long term PPAs which the Government has directed that private parties should enter into as a form of state aid, where in its view, these contracts result in commercial risks being borne for the most part by the power purchaser and not the seller/generator of electricity. It is too early at this stage to comment on the potential impact of the EU state aid rules as the contours of government intervention in the PPA market remain vague and its eventual powers are primarily intended to deal with a transitional phase.

#### *Energy Intensive Users*

Given that the Bill now proposes to exempt large energy users from various levies, including now the CfD levy, state aid clearance will have to be obtained before any selective exemptions for energy intensive users can be put into effect. This form of aid must be in conformity with the recent guidelines on state aid compensation for carbon leakage issued by the Commission in early 2012. To qualify for compatible aid, large intensive users must be listed as an eligible sector (Annex II of the guidelines) and must be exposed to a significant risk of carbon leakage due to EU ETS allowance costs being passed on in electricity prices.<sup>9</sup>

Although the Energy Bill introduces a number of key improvements from the draft bill, including the creation of a single CfD Counterparty which is ‘insolvency remote’, without state aid clearance, the CfDs cannot deliver investor stability. State aid is expressly a generator risk in the Heads of Terms for the renewables CfD.

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9. OJ 2012 C158/04.

## Commentary

As we indicated in our earlier review of the May draft, the Commission's ongoing plans to reform state aid control could have an impact on how it assesses the Energy Bill for compatibility with the EU Treaty rules. Although the so-called State Aid Modernisation (SAM) exercise primarily focuses on the implementation of Articles 107 and 108 of the Treaty of the Functioning of the European Union (TFEU), it is highly likely that the Commission's revamped policy will also apply to support to the nuclear sector. Indeed it is now probable that nuclear energy will be increasingly dealt with in the same way as renewable energy, even although the current 'RES' Directive of 2008 does not list nuclear as a renewable fuel. In the summer of 2012 the Commission opened a consultation on the review of its Environmental Aid Guidelines (EAG), last revised in 2008, with a view to adapting them to the objective of ensuring a transition to a low carbon economy.

While the Commission may accept the necessity of state aid to promote the transition to a low carbon economy, including substantial nuclear investment, it must still be convinced that the aid is proportionate to the objectives pursued and is not distortive of inter-state trade. This is where the SAM exercise and the revised EAG could have an impact on national policy: the Commission (supported by the Council) proposes to take a tougher approach to assessing aid for renewables generally, and to ensure that the level of support diminishes over time and that the support scheme itself will expire automatically once the underlying market failures justifying support are corrected.<sup>10</sup>

## Definitional issues

### *a) CfDs*

At the earlier consultation stages of EMR, the Treasury appeared adamant that the CPF, to be implemented through the imposition of the Climate Change Levy on fossil fuels, did not amount to state aid but was rather a taxation instrument the introduction of which falls within the exercise of its sovereign powers, and which will not lead to a selective advantage for any particular producer or supplier. In other words this measure would not meet the crucial 'selectivity' test – a state measure must confer a selective economic advantage on particular products or sectors. Clearance for the CPF is not therefore anticipated. But this approach is not without difficulty. The Commission (supported by the European courts) has been quick to find that environmental taxes or levies create selective advantages and constitute state aid if the benefits of the tax or levy are not intrinsic to its objectives. The CPF was expressly introduced to support new low-carbon investment, but raising wholesale prices also benefits existing renewable and fossil fuel plant.

Nevertheless, now that it is clear that CfDs will have a government backed company as counter-party and will be funded by levies imposed on suppliers, it is difficult to conclude that the CfD is not a state aid measure within the meaning of the Treaty. The strike price mechanism is still based on an administrative approach to price setting and as revenues are channelled through and apportioned by a state-controlled company, then past precedent confirms that 'state resources' are involved, even if the final energy customer is eventually paying the bill.

The Commission will therefore in all probability need to declare the CfD system to be compatible with its revised EAG. Interestingly a guiding principle now under consideration for the planned EAG revisions of these latter guidelines is technological neutrality. The proposed allocation and administrative strike price arrangements as set out in the Energy Bill can probably not aspire to this goal.

### *(b) Capacity Markets: National or European?*

Even with the publication of the Energy Bill, the regulatory regime for the Capacity Market has still to be worked out and the government appears to still be considering how the planned Capacity Market will interact with the EU state aid rules.

10. See the Council Conclusions on Renewable Energy, 3 December 2012.

While the government acknowledges that there are a number of potential benefits of enabling capacity located outside the GB market but connected to GB via interconnectors to participate directly in the Capacity market, direct participation of interconnected capacity in the Capacity Market is seen as unworkable, given the challenges to allowing interconnected capacity to participate on equal terms – in particular in ensuring that interconnected plants actually deliver energy to the GB market at times of system stress. The interconnected capacity would also have to demonstrate that it is not receiving a capacity payment from another EU Member State, that it meets the pre-qualification criteria for the GB capacity market, and that it has delivered energy when needed.<sup>11</sup>

A related issue is whether interconnection capacity would have to demonstrate that it was available for the GB market by booking physical transmission rights. As GB interconnectors have not yet moved to full market coupling and still run explicit auctions, this option is still feasible. However in accordance with EU policy, market coupling should be in place by late 2014 so that a requirement to demonstrate physical transmission rights, or requirements to meet pre-qualification criteria and to provide proof of ability to deliver is likely to be seen as a barrier to trade, outlawed by Article 34 of the Treaty. It is unlikely that the Commission will share the government's view that it is 'not appropriate for interconnectors to participate directly in a Capacity Market as interconnectors are primarily transmission infrastructure and therefore do not directly provide capacity'. The Commission announced a consultation on capacity market mechanisms - and on the need for a blue-print for an EU-wide capacity mechanism on 15 November 2012.

## Commission Policy Alignment

The SAM exercise promises to align Commission principles on compatible aid assessment and to place greater emphasis on determining the incentive effect of a proposed state aid measure, avoiding the wasteful use of public money and ensuring a more systematic assessment of the negative effects of state aid on the internal market. This approach is to be applied to the review of its Environmental Aid Guidelines (EAG) – up for renewal at the end of 2013 and to the revision of the so-called General Block Exemption Regulation (GBER), also scheduled for late 2013. To date the Commission has taken a somewhat benign attitude to aid to renewable energy and has cleared most national support measures as necessary to meet the '20-20-20' target of ensuring 20 per cent of renewable energy generation in the national fuel mix by 2020. Although the Commission is sensitive to the problem of 'carbon leakage' it will not tolerate blanket exemptions for energy intensive users from contributing to environmental or climate change goals. This is evident from the conditions for evaluating this type of aid, adopted in the recent carbon leakage guidelines of 2012.<sup>12</sup>

All in all, the SAM process indicates that Commission scrutiny of renewable support measures will intensify and that it will demand a more exacting economic case to be made out in favour of longer term support. This may require the UK government to demonstrate clearly that EMR does indeed 'maintain a market-based approach while addressing market failures' and is designed 'to meet the investment challenge and deliver this at lowest cost' and it must convince the Commission that less interventionist measures or alternatives are not able to meet the stated policy objectives.

Further, the impact of the Energy Bill on the wider European energy market - and in particular the impact of plans for and access to capacity markets and access to balancing markets will remain firmly within the Commission's sights as the Commission strives to maintain its own vision - as recently re-stated in its Communication 'Making the Internal Energy Market Work' of 15 November 2012 - that a well-interconnected, competitive and open European energy market is the best means to deliver a secure and affordable low-carbon energy future.<sup>13</sup> It is no surprise that the Commission views enhanced interconnection as the better alternative to a system of national fragmented and heavily subsidised capacity markets.

11. Annex C: Capacity Market Design and Implementation Update 21.

12. O J 2012 C158/04

13. Com (2012) 663 final, 15.11.2012 available on DG Energy's website.

## Conclusion

The European Commission has an almost exclusive competence to declare state aid to be compatible with the Treaty. Although the SAM will not be fully implemented until late 2013 and the current versions of the EAG and the GBER will not be updated and amended before that date, the roll out of the Commission's state aid reform plans will continue to cast some uncertainty over the legality of a number of provisions of the Energy Bill, and once drafted, the implementing secondary legislation. Although the GB government is committed to long term policy stability, it cannot offer a protection against subsequent changes of law where this is mandated by EU law. The draft CfD Heads of Agreement in fact acknowledge this, as discussed in the section on CfDs above.

State aid control remains a highly politicised arena and the government may well succeed in convincing the Commission of its laudable, longer term aims so that EMR can be rolled out broadly as planned. The enforcement of EU law on freedom of movement as well as the internal energy market legislation is an entirely different matter. Although the Commission can and does launch infringement actions against Member States for failure to observe their obligations, individuals – consumers, NGOs, industry – can rely on their rights under this body of law to challenge national law that does not correctly implement European requirements. It is perhaps in acknowledgement of this risk that the government has indicated that non-UK based generators may under certain conditions, qualify for CfDs. Similarly, it has been considering whether interconnection capacity would, under certain conditions, be admitted into the Capacity Market. Much will depend on the conditions applied. As Lord Denning famously warned, European law, like climate change, affects more than the level of the incoming tides.<sup>14</sup>

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14. "Our sovereignty has been taken away by the European Court of Justice...Our courts must no longer enforce our national laws. They must enforce Community law...No longer is European law an incoming tide flowing up the estuaries of England. It is now like a tidal wave bringing down our sea walls and flowing inland over our fields and houses—to the dismay of all. " A Denning, Introduction to The European Court of Justice: Judges or Policy Makers? (London: Bruges Group, 1990)

# Government Pipeline and Storage System (Part 3 Energy Bill)

The Government Pipeline and Storage System consists of around 2,500 kilometres of cross-country pipelines of differing diameters, together with storage depots, associated pumping stations, receipt and delivery facilities and other ancillary equipment. The system receives, stores, transports and delivers light oil petroleum products for military and civil users.

In peacetime the military use amounts to only around 10% of the current throughput and 30% of the storage capacity of the system. It distributes 40% of aviation fuel within the United Kingdom. The powers under which the system was constructed and under which rights were acquired in relation to it were many and various. Elements of the system were constructed on or under what was, or remains, publicly owned or acquired land. Much of the system, however, was constructed on or under private land. Some elements of the system were constructed on or under private land under statutory powers. Other elements were built by agreement with the landowner at the time. Part 3 of the Energy Bill effectively sets up the basis on which the GPSS can be privatised so as to:

- Raise a capital receipt for Government to reduce the public debt;
- Enable increased private sector investment in the GPSS to increase the resilience of the system and avoid future liabilities for Government; and
- Allow commercial development of the GPSS.

If the privatisation occurs, the MOD will contract with the buyer to meet its ongoing requirements and will also seek to protect the interests of other customers during negotiations to see the GPSS.

In broad terms the Energy Bill seeks to achieve this by:

- Defining the GPSS;
- Defining the rights of the Secretary of State in relation to the GPSS:
  - The Secretary of State may maintain and use the GPSS, or any part of it, for any purpose for which it is suitable.
  - the Secretary of State may inspect or survey the GPSS or any land on or under which it is situated and may remove, replace or renew the GPSS or any part of it. If the system, or any part of it, is removed or abandoned, he may restore the land.
  - For the purpose of exercising the rights described above, the Secretary of State may enter any land on or under which the GPSS is situated or any land held with that land (“the system land”).
  - If the owner or occupier of the system land is entitled to exercise a right to pass over other land (“the access land”), the Secretary of State may exercise a corresponding right of access over that land for the purpose of accessing the system land.
  - Except in an emergency, the above rights may be exercised only at a reasonable time and with the consent of the occupier of the land or under the authority of a warrant. The rights do not include a right to enter dwellings.



– ***Requiring the registration of those rights:***

- The rights referred to above (and the transfer rights referred to below) are not subject to any enactment requiring the registration or recording of interests in, charges over or other obligations affecting land but that they bind any person who is at any time the owner or occupier of the land.
- However, in England and Wales, such rights are local land charges, and it will be the duty of the Secretary of State to apply for their registration and in Scotland the rights may be registered in the Land Register of Scotland or recorded in the Register of Sasines.

– ***Requiring that compensation be payable in respect of the creation of new rights or the exercise of rights:***

- The Secretary of State must pay compensation to a person who proves that the value of a relevant interest in land to which that person is entitled is depreciated by the creation of the rights referred to above (and the transfer rights referred to below). Such compensation being equal to the amount of the depreciation.
- If a person proves loss by reason of damage to, or disturbance in the enjoyment of, any land or certain property as a result of the exercise of the rights referred to above, the person on whose behalf the right was exercised must pay compensation in respect of that loss.

– ***Allowing for the GPSS and the rights referred to above to be transferred:***

- The Secretary of State may sell, lease or transfer the GPSS and any right or liability relating to the GPSS system or any part of it, subject to such conditions, if any, as he considers appropriate.
- This includes the statutory rights granted to the Secretary of State and referred to above.

– ***Providing for the modified application of the Pipe-lines Act 1962 (c.58) to the GPSS.***

The GPSS is currently managed by the Oil and Pipelines Agency (a statutory corporation set up for the purposes of exercising and performing functions assigned to it by the Oil and Pipelines Act 1985 (c.62)). The Energy Bill therefore provides that the Secretary of State may, by order, repeal the Oil and Pipelines Act 1985 and dissolve the Oil and Pipelines Agency. It also provides that if the Agency is dissolved, the Secretary of State may by order make a scheme for the transfer to the Secretary of State of property, rights and liabilities (a transfer scheme). The terms of such a transfer scheme may be wide ranging and in particular may:

- provide for the transfer of property, rights and liabilities that could otherwise not be transferred;
- provide for the transfer of property acquired after the making of the scheme; or
- make consequential, supplementary, incidental or transitional provisions such as:
  - to create rights or impose liabilities in relation to property or rights transferred;
  - to provide for shared ownership or use of property.

As with so much of the Energy Bill, the real interest for investors will come later when the detail of the structure and terms of any privatisation become known. In the current market, infrastructure sale prices are highest for assets with a regulated or quasi-regulated return on capital. Given that the first reason for the sale is given as producing a capital receipt for Government it is interesting that the Energy Bill does not set up the framework for such a regulated return (even if only in respect of the MOD usage requirements). As is noted in our Synopsis above, the Government is considering “restructuring opportunities” for the GPSS. It will be interesting to see how this develops and how the customers of the GPSS (for example Heathrow) seek to protect their interests during any privatisation process.

# Strategy and Policy Statement (Part 4 Energy Bill)

As part of the governance measures for EMR, the Energy Bill 2012 provides for the designation of a “strategy and policy statement” to set out the strategic priorities in formulating energy policy, the particular outcomes to be achieved as a result of the implementation of that policy and the roles and responsibilities of the Secretary of State, the Authority and other persons in implementing that policy.

The Authority must then have regard to the strategic priorities set out in the strategy and policy statement when carrying out its regulatory functions and there is a duty on the Secretary of State and the Authority to carry out their functions in a manner which is considered best calculated to further the delivery of the policy outcomes in the statement (subject to their existing duties to carry out their functions in the manner best calculated to protect the interests of existing and future consumers, whenever appropriate by promoting competition). It is acknowledged that the Authority may not be able to deliver a particular policy outcome. Pursuant to subsection (7) of section 110, the Authority must give notice to the Secretary of State if at any time the Authority concludes that a policy outcome contained in the strategy and policy statement is not realistically achievable; such notice containing, pursuant to subsection (8), the grounds on which the conclusion was reached and what if anything the Authority is doing, or proposing to do, for the purpose of delivery of the outcome so far as reasonably practicable.

The strategy and policy statement can only come into effect if specified procedural consultation processes, including consultation with the Devolved Administrations, have been followed and each House of Parliament has passed a resolution approving the statement.

The strategy and policy statement must be reviewed every five years and may be reviewed at other times if an election has taken place, the Authority gives notice that the policy outcomes in the statement are not realistically achievable, a significant change in energy policy has occurred or Parliamentary approval was not given following the last review.

# Offshore Transmission

## (Part 5 Energy Bill)

The Energy Bill includes an amendment to the OFTO licensing regime intended to clarify that a developer who exercises the generator build option under the enduring regime (which was an option introduced in response to developer representations during consultation) before transferring assets to an OFTO is not in breach of the prohibition on participating in the transmission of electricity without a licence during the commissioning of those assets. The revised Energy bill has refined the conditions of application of the exception including allowing (unless the Secretary of State reduces this to 12 months by order) 18 months, instead of the previous 12 months, after the issue of the completion notice. This does not go as far as some industry participants had requested which was to give the Secretary of State more flexibility on this timing that could be exercised without necessitating the amendment of primary legislation. The revised Energy Bill also has a clearer mechanism which contemplates that the developer may have changed during the tender process and the construction may be carried out by an associated body corporate of the developer rather than by the developer itself. The four conditions for the new exception to apply are now that:

the transmission takes place over an offshore transmission system or anything forming part of it;

the transmission takes place during a commissioning period, which is the period before the completion notice is given and during the period of 18 months (or 12 months if the Secretary of State specifies by order) after that notice;

a tender exercise has been or is being held for the granting of an offshore transmission licence in respect of that system the Authority has accepted it as a qualifying project and the transmission assets have not yet been transferred to the successful bidder; and

(i) the developer in relation to the tender exercise (which is described by reference to being the holder of the benefit of the connection arrangements including by transfer from a previous developer) is the operator of a generating station generating electricity transmitted over that offshore transmission system and (ii) that any combination of that developer, or the previous developer, or a body corporate associated with either of them at any time during the construction or operation, is the person who constructed and installed the system.

At the moment, a similar situation under the transitional regime (where developers are building and commissioning the transmission assets as part of the original wind farm development) is dealt with by the commencement of the regulatory regime in relation to 132kV assets conveying electricity from offshore being restricted to assets from the point of transfer to an OFTO. (Ofgem has also made statements that prior to completion of commissioning that it does not consider that a licence is required, principally because the transmission assets would not have been proven as a transmission system.)

In due course, however, Government intends to commence the regulatory regime in full rather than on the current partial basis, at which point the amendment introduced by the Energy Bill will be an important protection to developers. Nevertheless, the restriction in the Energy Bill exemption to 18 months after the completion notice may present difficulties for developers depending upon the stage at which the completion notice is given. Details of the meaning of completion notice for this purpose are still awaited since it depends upon a reference to a notice given in accordance with National Grid's licence, the criteria for which have been the subject of discussions in consultation workshops. In the workshops it was suggested that there should be only one completion notice per qualifying project (although some staged projects might be treated as more than one qualifying project) and that the completion notice would be given by National Grid broadly around the point of issue of the interim operation notification. Previous OFTO projects have experienced a number of construction difficulties, including with grid code compliance issues and there have been long periods between interim operation following initial commissioning tests and final operational status after full grid code compliance tests. The completion of the transfer to the OFTO has taken much longer than expected for many projects and, even with the extension to 18 months, this may not be sufficient for all projects.

Notably the restriction may not sufficiently protect all of the transitional projects. Ofgem has stated that it is continuing to consider how existing transitional projects should be treated with a view to recognising their transitional nature whilst also ensuring they are transferred as soon as is reasonably practicable.

Although not part of the Energy Bill, it is worth noting some of the effects of the Electricity and Gas (Internal Markets) Regulations 2011 which are now in force in relation to the implementation of the EU Third Package on the OFTO businesses. A number of new OFTOs have submitted applications under those Regulations for certification for compliance with the ownership unbundling requirements of the Third Package. In May 2012, the EU Commission issued an opinion which set out that, as the transmission systems of the OFTOs were not in place on 3 September 2009, the only unbundling option provided for those operators under the Electricity Directive is the full ownership unbundling option, and that Ofgem needed to undertake further analysis in relation to whether the requirements of the Electricity Directive are satisfied in relation to those OFTOs. Some favourable certification decisions have now been issued by Ofgem, while others are progressing through the Ofgem initial decision and EU Commission opinion followed by Ofgem final decision process.

# ANNEX 1:

## *Quick Reference Guide to the Proposals*

# Contracts for Difference (CfD)

## Current Position

CfDs will provide payments to or from low-carbon generators calculated on the basis of the difference between a strike price and a reference price.

The CfD will be a private law contract between a generator and a single CfD Counterparty, with disputes subject to arbitration.

The CfD Counterparty will be Government-owned and funded by a supplier obligation.

Slightly different contract terms will be used for different generation types:

- intermittent (e.g. wind, wave, solar)
- baseload (e.g. nuclear, some biomass, some CCS)

Any variations between generation types are to represent value for money and be consistent with state aid rules.

Reference price for intermittent generation to be hourly day ahead auction price for the GB Zone Price (to be established under NWE Market Coupling).

Reference price for baseload has yet to be determined, work is ongoing and will involve market testing of emerging proposals.

Generators will be required to post collateral if the reference price is forecast to exceed the strike price. (Suppliers' funding obligation will be enforceable as a licence requirement and they too will be required to post collateral.)

Energy Intensive Industries will be excluded from the cost of funding CfDs (through suppliers), subject to state aid clearance.

CfD expected to be available from the second half of 2014.

Generation not already accredited when the FiT CfD is introduced will have a choice between FiT CfD and RO until 31 March 2017 (subject to certain grace periods).

Strike prices will initially be administratively set by Government. The System Operator will conduct analysis to inform the Government's decision on renewables strike prices, which will draw on data collected in the recent Renewables Obligation Banding Review. A panel of Technical Experts will review and report on the System Operator's analysis. 2014-2018 strike prices for renewables to be confirmed in first delivery plan by end 2013.

Strike prices will be fully or partially CPI-indexed.

The aim to move from administrative price 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.



For early stage CCS projects (including those supported under the CCS Commercialisation Programme) and nuclear, the level of the strike price is expected to be determined through a process of negotiation between developers and DECC.

The Government proposes to pay CfD supported plant based on output. If the reference price drops below zero, payments will be capped at the value of the strike price.

Initial view that CfD term for renewables should be 15 years, with 10-year length for certain CCS projects, leaving the term for nuclear and long-term CCS-equipped plant to be determined.

As yet unpublished secondary legislation is intended to set out full workings of CfD and supplier obligation.

## Objectives

To improve long-term revenue certainty for low-carbon generation.

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, the Government will have backstop powers to intervene to improve liquidity.

The evidence received in response to the call for evidence of June 2012 in relation to the availability of power purchase agreements for independent generators broadly supported the view that the market has shifted against them in recent years and that it is more difficult to secure PPAs on terms that are as beneficial as they used to be.

Heads of Terms Reference	Description	Key elements of approach
<b>Parties</b>		
The contract is between the generator and the CfD Counterparty		
<b>1. Definitions and Interpretation</b>		
The contract terms should be read with reference to the definitions and interpretative provisions set out in this part.		
<b>2. Term and termination</b>		
Duration	Duration of support provided by the contract, being the period of time during which the generator is entitled to receive, or is obliged to make, payments under the contract.	Renewable energy projects: 15 years. Nuclear: term to be agreed. CCS: 10 years or as defined by the CCS competition for early-stage projects.
Termination	The right of the CfD counterparty to terminate the contract, and the consequences of termination.	The CfD counterparty will have the right to terminate the contract in prescribed circumstances, including (i) failure to meet the milestone; (ii) failure to satisfy a condition precedent; (iii) prolonged force majeure; or (iv) a generator event of default. In the case of termination for an event of default, the generator will pay a termination payment.  The contract will afford generators remedy periods for most events of default. The Government is also minded to provide for a standard form CfD Direct Agreement which would be entered into with the funders of a generator to provide appropriate cure periods and step-in rights.
<b>3. Conditions Precedent</b>		
Conditions precedent	The requirement on the generator to fulfil certain conditions prior to its entitlement to receive (and conversely to make) payments.	The generator should: - keep the CfD counterparty informed as to progress towards fulfilling the conditions precedent; - notify the CfD counterparty when a condition precedent has been fulfilled; - select a 'Start Date' from which entitlement to receive/obligation to make payments would commence. The Start Date must fall within a set time period after the conditions precedent have been satisfied.  The CfD counterparty may agree to waive one or more of the conditions precedent.
<b>4. Milestone</b>		
Milestone	The requirement on the generator to satisfy a project milestone.	The generator must provide evidence of substantive financial commitment (through a minimum spend amount to be defined) within a set time period or otherwise risk termination of the contract.

Heads of Terms Reference	Description	Key elements of approach
<b>5. Metered Output, Reference Price and Strike Price</b>		
Metered Output	The definition of metered output and how it is calculated.	<p>Payments under the CfD will be made on the basis of loss-adjusted net metered electricity.</p> <p>Metered output will be calculated from data used for the purpose of settlement of imbalances under the Balancing and Settlement Code, or otherwise calculated in a manner consistent with the requirements of the Balancing and Settlement Code.</p>
Reference Price	The market price referenced in the contract for the purposes of determining difference payments.	<p>The reference price is not currently reflected in the Heads of Terms.</p> <p>Intermittent: The market (reference) price will be the (hourly) price set by the GB power exchanges (APX and N2Ex) for power sold in a day ahead auction.</p> <p>Baseload: The reference price is to be determined.</p>
Strike Price	The contract strike price and how it is to be adjusted for inflation.	The strike price will be indexed annually by reference to the change in the Consumer Price Index (CPI). The link to CPI will be full or partial, to be determined as set out in the Operational Framework.
<b>6. Payment Obligations</b>		
Payment of Differences	Description of the two way payment of difference amounts, and the extent of the CfD counterparty's liability under the contract.	<p>When for a settlement period the strike price is above the reference price, the CfD counterparty will be obliged to make payment. When for a settlement period the strike price is below the reference price, the generator will be obliged to make payment.</p> <p>Payments under the contract will be calculated for each settlement period as the product of the metered output (capped at the contract quantity (see below)) and the difference between the strike price and the reference price.</p> <p>The CfD counterparty will raise funds through the supplier obligation to make payments under the contract, and its liability will not exceed the amount that it receives under the supplier obligation and allocated to the contract.</p>
<b>7. Billing and Payment</b>		
Billing Statement	The content of billing statements, and provisions for calculating payments when information is not available.	For each billing period (the length of which is to be determined) the CfD counterparty will calculate the net amount payable, using estimated information where the actual is not available. The CfD counterparty will send a billing statement to the generator within a set period after each billing period.
Payment Mechanics	The due date for payment, application of VAT and other taxes, provisions relating to deduction and withholding, and disputed payments.	<p>Payments will be made to an account specified by the generator/CfD counterparty. Payment will be made in full without set off (except on termination) or withholding.</p> <p>The CfD counterparty will be able to suspend payment if the generator is failing, through its own fault, to comply with its metering obligations.</p> <p>Interest will be payable on amounts that are not paid under the contract by the due date.</p>

Heads of Terms Reference	Description	Key elements of approach
<b>8. Metering</b>		
Metering	Generator undertaking with respect to metering and right of access and testing for the CfD counterparty.	The generator must comply with metering requirements and grant the CfD counterparty access to inspect and test metering equipment.
<b>9. Information Provision</b>		
Provision of information to the CfD counterparty	Obligation on the generator to provide the CfD counterparty with information.	The generator must when requested provide information to the CfD counterparty to help it perform its functions under or in connection with the contract.
<b>10. Representations, Warranties and Undertakings</b>		
Representations and warranties	Representations and warranties that the parties must make on signing the contract, at the milestone delivery date and at the Start Date.	<p>The CfD counterparty and the generator will give usual formal warranties addressing such matters as their status and authority to enter into the contract.</p> <p>The generator will give additional warranties, for example as regards relevant authorisations that it is required to obtain.</p>
Undertakings	Undertakings made by the generator and CfD counterparty.	<p>The generator will undertake to comply with applicable laws, authorisations and industry documents and to construct, operate and maintain its generation facility in accordance with the standards of a reasonable and prudent operator.</p> <p>The CfD counterparty will undertake to comply with applicable laws.</p>
<b>11. Contingencies</b>		
Change in Law	<p>Provisions which set out:</p> <ul style="list-style-type: none"> <li>- the process for notifying a change in law;</li> <li>- the information the notification should contain;</li> <li>- the process for determining whether a change in law is a 'qualifying change in law'; and the costs are 'material';</li> <li>- the adjustment to the strike price;</li> <li>- the duty on the generator to mitigate the impact of the change in law;</li> <li>- the obligation on the generator to pay the CfD counterparty's expenses in dealing with the notification;</li> <li>- that a change in law cannot be a basis for terminating the contract;</li> <li>- what happens if a dispute arises.</li> </ul>	<p>If a qualifying change in law results in the Generator incurring material costs, the Generator will be compensated by way of an increase to the Strike Price. Similarly, if a cost saving is made as a result of a qualifying change in law, the Strike Price will be reduced over the same period.</p> <p>A qualifying change in law is one that is not foreseeable and which applies specifically to:</p> <ul style="list-style-type: none"> <li>- the project or the generator;</li> <li>- generation facilities of the same or similar type;</li> <li>- generation facilities which are subject to a CfD;</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>- generation facilities of the same or similar type and which are subject to a CfD.</li> </ul>

Heads of Terms Reference	Description	Key elements of approach
<b>12. Termination Events</b>		
Termination events	Events which give the CfD counterparty the right to terminate the contract.	The CfD counterparty will be entitled to terminate the contract in response to a number of termination events affecting the generator, including insolvency, non-payment, breach of warranty or undertaking, failure to post collateral and loss of licence.
<b>13. Credit Support</b>		
Acceptable collateral	Provisions covering the requirement to provide and maintain collateral.	The requirement to provide collateral will apply where the CfD counterparty reasonably considers that the reference price will be greater than the strike price over a given future period. The required amount of collateral would be equivalent to the anticipated payments due to the CfD counterparty under the contract for that period.
<b>14. Confidentiality, Announcements, Freedom of Information</b>		
Confidentiality and announcements	Provisions setting out when parties are permitted to disclose confidential information or make public statements relating to the contract.	The provisions limit disclosure and use of confidential information or the making of public statements.
Freedom of information	Provisions requiring the generator to co-operate with the CfD counterparty to enable it to comply with its obligations under the FoIA and Environmental Information Regulations.	The provision obliges the generator to co-operate with the CfD counterparty to enable it to comply with its obligations under the FoIA and Environmental Information Regulations.
<b>15. Intellectual Property Rights</b>		
Intellectual Property Rights (IPR)	Provisions covering licence of, and an indemnity for the CfD counterparty with respect to infringement of, IPR.	The provision protects each party's IPR as may be required.
<b>16. Dispute Resolution Procedure</b>		
Dispute Resolution Procedure	The procedure for resolving disputes that arise out of or in connection with the contract.	Disputes should be settled in a timely manner, informally between parties to the contract where appropriate and otherwise by an independent third party. The process should also be designed so as to minimise costs.
<b>17. Miscellaneous</b>		
General Provisions, Governing Law and Language	A number of miscellaneous provisions, including restrictions on transfer.	<p>If a generator sells its generation asset, it must ensure that the buyer takes a transfer of the CfD. The CfD will not be capable of being separated from the generation asset, so the two will require to be transferred together.</p> <p>The restrictions on transfer are not intended to prevent a generator from using the generation asset as security in relation to the financing or refinancing of its business activities.</p>
<b>Schedules</b>		
Conditions Precedent	Sets out the conditions precedent.	The conditions proposed are largely aligned with existing grid compliance processes and are not intended to place significant additional requirements on CfD generators. The contract will incentivise generators to commission the installed capacity as agreed at contract signature.

# Carbon Price Support

## Current Position

The Government has removed the exemptions from the Climate Change Levy (CCL) for fossil fuels used to generate electricity and taxes these at rates to take account of their average carbon content (which will be different to the main Climate Change Levy rates). The Government has also reduced 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 are in effect.

Rates from 1 April 2013 to 31 March 2014 are equivalent to £4.94/tCO<sub>2</sub>.

Rates from 1 April 2014 (equivalent to £9.55/tCO<sub>2</sub>) and indicative rates from 1 April 2015 (equivalent to £12.06/tCO<sub>2</sub>) and 1 April 2016 (equivalent to £14.86/tCO<sub>2</sub>) were published in the 2012 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 the heat output of good quality CHP an exemption on the carbon price support levy, subject to state aid approval. However, it also proposed to remove from CHP the benefit of Levy Exemption Certificates (LECs) for electricity supplied indirectly to a consumer. Exemption certificates relating to generation made before 1 April 2013 may continue to be used until 31 March 2018.

The Government will implement a partial relief for fossil fuels used in CCS plants. If a power station is capturing and storing a quarter of the CO<sub>2</sub> it produces, then it will be given relief on a quarter of its input fuel.

Following consultation, coal with a calorific value of more than 15 gigajoules per tonne will be the only taxable solid fuel. Generators, and any connected persons, that have a combined generation capacity of 2 megawatts or lower will not be liable to the carbon price support rates of the CCL.

All generators liable to pay the CPS rates of CCL must register with HM Revenue and Customs and must account for, declare and pay the CPS rates of CCL.

The Government has proposed a £250m scheme to compensate certain Energy Intensive Industries for additional costs associated with the Carbon Price Floor (and the EU Emissions Trading System), subject to state aid guidelines. A consultation paper on this was launched in October 2012.

## 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/tCO<sub>2</sub> in 2020, rising to £70/tCO<sub>2</sub> in 2030 (real 2009 prices).

Requires less public expenditure as funded by the tax system.

Aligned with the 'polluter pays' principle.

## Outstanding Issues

Obtain state aid approval for reliefs for CHP and Energy Intensive Industries.

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



# Emissions Performance Standard

## Current Position

The main provisions of the EPS are set out in the Energy Bill and this also provides powers for the Secretary of State to make further regulations in relation to the scope of the EPS and its enforcement.

The EPS sets an annual regulatory limit on carbon dioxide attributable to the use of fossil fuel emitted by individual fossil fuel plant. (The meaning of attributable to the use of fossil fuel is to be further defined by regulations, but this is understood to be the basis for the ‘zero rating’ of emissions from biomass fuel referred to in previous consultation papers.)

In general the EPS limit will only apply to fossil fuel plants constructed pursuant to a relevant consent for development granted after the applicable section of the Energy Bill comes into force, which is expected to be Q1 2014.

The Secretary of State does, however, have the power to make regulations to apply the EPS limit to existing plant which replaces its main boiler or installs an additional main boiler (including the power to make different provision, in relation to different parts of the plant). There are also some suggestions that regulations could apply the EPS to existing plant in other situations, but this is still unclear.

The EPS limit is set at a level equivalent to 450g CO<sub>2</sub>/kWh at 85% load factor calculated on the plant’s installed electrical capacity. This limit is fixed in the primary legislation for the period up until and including 2044. (The Government calculates that this is below the level expected of new coal plant when operating unabated, which is nearly 800g/kWh, but above the level of modern combined cycle gas-fired power stations which operate at below 400g/kWh. It also assesses this as meaning that typical advanced supercritical coal-fired power stations subject to this requirement would need to abate their emissions by 40% compared to what they could otherwise emit.)

The Energy Bill now contains a provision for the Secretary of State to have the power to suspend or modify emission limits if there is an electricity shortfall or a significant risk of an electricity shortfall in Great Britain (subject to consultation with Scottish and Welsh ministers before the direction is given and to laying a statement of the reasons for making the direction before Parliament after the direction has been given). The Department of Enterprise, Trade and Investment has similar powers in relation to Northern Ireland.

The definition of relevant consent means that the EPS should not apply to plant of less than 50MW declared net capacity.

The reference to “fossil fuel plant” includes any associated gasification plant and any associated CCS plant. There is also provision to address separate CCS plant supplying fuel to more than one generating station.

The specific provision in the previous draft of the Energy Bill for the Secretary of State, by order, to provide an exemption for CCS demonstration plants is no longer included in the Energy Bill issued in December 2012. The consultation accompanying the Energy Bill now says that the EPS applies to new fossil fuel power stations at or over 50MW (including those where CCS is demonstrated).

Provision is made for the regulations to be issued by the Secretary of State to disregard the use of fossil fuel used for ancillary plant, for safety purposes or in an emergency or by a network generating station at a time when it is not exporting to a network.

The regulations to be issued by the Secretary of State may also provide that emissions attributable to the supply of heat from combined heat and power plant are not attributable to the use of fossil fuel. The Government indicated in the May 2012 consultation an intention that the regulator would use the Qualifying Heat Output (QHO) detailed on the relevant year's Good Quality CHP (CHPQA) certificate and apply a discount of the QHO multiplied by the emission intensity of a 90% efficient gas boiler. Under this approach, plant which does not hold a CHPQA certificate would not be able to discount its emissions.

The definition of fossil fuel is coal, lignite, peat, natural gas, crude liquid petroleum, bitumen and any substance produced directly or indirectly from them for use as a fuel. The explanatory notes to the draft Energy Bill in May 2012 said that this definition was not intended to capture waste, which includes materials manufactured from fossil fuel sources if they have not been produced for use as a fuel. This should mean that the EPS does not apply to Energy from Waste plant.

The enforcement regulations may contain provisions requiring enforcing authorities to comply with directions given by the appropriate national authority. It is no longer expressly contemplated that this may include directions to treat the emissions limit as modified or suspended for a specified period, presumably because a specific mechanism for dealing with a shortfall or a significant risk of an electricity shortfall has now been included discussed above.

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 Government said in the May 2012 consultation that if it were deemed that changes were necessary for future plants not already consented, for example to apply the emissions limit to new gas plant, these changes would be consulted on and introduced through primary legislation.

In the May 2012 consultation, the Government said that in addition to the replacement of a main boiler (which is specifically referred to in the Energy Bill) it is the Government's intention that upgrading a plant to supercritical technology would trigger the application of the EPS to existing plant and that this will be provided for in secondary legislation. Nevertheless, it also stated that it is intended that if a plant needs to carry out other major works such as installation of CCS or equipment needed to meet European environmental standards (such as equipment to reduce nitrous oxide or other emissions as required by the Industrial Emissions Directive), it should not be caught by the EPS. Conversion works to facilitate the use of biomass would also seem to fall within this category of other major works and so to be intended not to be caught by the EPS, which is consistent with what the White Paper suggested.

## Objectives

To prevent unabated new build coal plant.

To complement the regulatory carbon capture ready requirements.

## Outstanding Issues

- The provisions of the regulations and the policy for issuing orders, including the following:
- The detailed calculations for determining which emissions are attributable to the use of fossil fuel.
- The terms on which the EPS could be applied to existing plant (other than for replacement of a main boiler).
- The terms of the exception for heat from combined heat and power plant.
- The details of the enforcement regime.

# Capacity Market

## Current Position

Although some more decisions have now been made, further analysis and consultation remains to be carried out on the detailed design of the Capacity Market.

The Energy Bill contains enabling provisions allowing the Secretary of State to make regulations for the purposes of the Capacity Market (the first set of which will require an affirmative resolution of each House of Parliament).

The current proposals for the high-level design of the Capacity Market are set out in Annex C to the EMR Overview Document published alongside the Energy Bill and are as follows:

- Trigger – Government is minded to run the first auction in 2014 for delivery of capacity in Winter 2018/19. Government also intends to run pilot auctions for DSR and storage from 2015-2018.
- Volume of Capacity - Ministers would decide the total amount of capacity needed, which is expected to be calculated by reference to an enduring reliability standard and perhaps supplemented by a demand curve.
- Competitive Auction – Capacity as determined by Ministers will be contracted through a competitive central auction, run by the System Operator, carried out four years ahead of the delivery year in question.
- Further Auction – Secondary auctions are considered useful to contract for additional capacity nearer to delivery if required. Time-banded products, each specifying delivery parameters such as duration and hours of operation, will be developed and offered to DSR and storage in a secondary auction closer to the delivery year.
- Eligibility – Capacity receiving CfD support will not be eligible to participate in the Capacity Market, at least while CfD prices are set administratively. A decision on whether RO supported capacity will be eligible is to be made by March 2013. There is a comment on interconnectors that given the complexity of energy trading arrangements between markets it may in practice prove too difficult for interconnected capacity to participate in the Capacity Market.
- Capacity Agreements – Providers successful in the auction will enter into capacity agreements, committing to provide electricity when needed in the delivery year (in return for a steady capacity payment) and will be penalised if they fail to deliver energy at times of system stress.
- Pricing – Government favours a “pay as clear” approach for both new and existing plants, so that every successful provider is paid the clearing price set by the most expensive successful provider that bid into the auction.
- Payment Model – A settlement agency model is proposed, with the settlement agent making back to back payments within day between suppliers and capacity providers. This is different to the counterparty body model proposed for the CfD. The settlement agent model would be underpinned by collateral held by the settlement agency and by mutualisation of any payment defaults by a supplier, so that other suppliers would be charged a proportionate share of a defaulted payment. The costs in each delivery year would be shared between electricity suppliers in accordance with a method yet to be determined.
- Length – A one year contract is proposed for existing capacity, with between one to around ten years for new capacity. Plants that begin construction between May 2012 and the first capacity auction will have the option of being treated as ‘new’, to ensure there is no disincentive for plants to be built before a Capacity Market is introduced.
- Limits – Possible restrictions on the amount of capacity providers can offer are yet to be determined.

- Financial support – The amount of financial collateral required is yet to be determined.
- Physical backing – The extent of the evidence required for physical backing is yet to be determined. The System Operator would undertake pre-qualification checks, for example against the plant's maximum rated capacity, in advance of the primary auction.
- Secondary Trading – Capacity agreements would be able to be traded on the secondary market between the initial issuing of capacity agreements through the primary auction and the point of delivery. In the previous paper it was stated that any party taking on a capacity agreement through secondary trading would need to demonstrate that they could meet the pre-qualification criteria set out for the primary auction.

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

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

## Objectives

To provide an insurance policy against the possibility of future blackouts, for example during periods of low wind and high demand.

The objective of the detailed design work is to design a Capacity Market which:

- enables the provision of adequate reliable capacity in the GB electricity market at minimum cost to consumers;
- minimises unintended consequences and risks, and supports delivery of wider Government objectives; and
- can be implemented to deliver a capacity auction as early as 2014 if required.

## Outstanding Issues

Whether RO-funded plants should be eligible to participate in the Capacity Market.

How interconnected capacity will be treated.

How to set and verify reliable baselines for non-generation technologies.

Whether penalties should be capped, and if so how.

Interaction with Ofgem's work on cash-out.

Interaction with the procurement of balancing services.

How the capacity market interacts with State Aid rules.

# 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 1 April 2014 have been published, as well as indicative rates for 1 April 2015 and 1 April 2016.	
Gas	See general discussion above, particularly in relation to Capacity Market and Gas Generation Strategy interface.  The Government indicates that the EPS, although set to 2044 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 plant constructed after the date of the change.  Government suggests that the clarity on the level of support for low carbon technologies under the Levy Control Framework will assist gas investors.  Government also anticipates that the proposal for Capacity Market agreements of up to ten years to be available for new plant (and that plant which commence construction between May 2012 and the first Capacity   Auction will be treated as new plant) will assist gas plant.	Introduction of charge on gas used to produce electricity.  Rates from 1 April 2013 and 1 April 2014 have been published, as well as indicative rates for 1 April 2015 and 1 April 2016.   Anti-avoidance provisions in effect from 23 March 2011 with additional anti-forestalling provisions introduced in 2012 Budget.	The Government published its Gas Generation Strategy on 5 December 2012, suggesting that up to 26GW of new gas plant could be required by 2030.   It also stated that gas could play a more extensive role, with higher load factors, should the 4th Carbon Budget be revised upwards.  As announced in July 2012, the Government will introduce a new £500 million field allowance for large shallow-water gas fields.  Government is also consulting on the tax regime for shale gas, which the Chancellor suggested earlier in the year at the Conservative Party conference would be a generous new tax regime for shale gas, so that Britain is not left behind as prices tumble on the other side of the Atlantic.  In the Autumn Statement 2012, the Government announced it would be establishing an Office for Unconventional Gas.  On 13 December 2012, the Secretary of State for Climate Change announced that exploratory hydraulic fracturing (fracking) for shale gas could resume in the UK, subject to new controls to mitigate the risks of seismic activity.
Coal	The EPS, designed to prevent new build of unabated coal fired plant, set at an annual limit equivalent to 450g CO2/kWh (at 85% load factor).  The EPS will also apply to an existing plant which undergoes a significant life extension or upgrade which is currently drafted to refer to replacement of a main boiler (but is intended to exclude upgrades undertaken to comply with EU law, the retrofit of CCS or works undertaken to facilitate the use of biomass).  The limit applies to emissions attributable to the use of fossil fuel which should effectively ‘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 1 April 2014 have been published, as well as indicative rates for 1 April 2015 and 1 April 2016.   Anti-avoidance provisions introduced with effect from 23 March 2011 with additional anti-forestalling provisions introduced in 2012 Budget.	See section on Biomass below in relation to co-firing.
CCS	CCS will be a low carbon technology eligible for a CfD.   Government considers that variations are likely to be needed for early stage CCS projects.  For projects supported under the CCS Commercialisation Programme the duration of support will either be ten years, or such other period as determined under the competition process.   For other CCS projects, analysis suggests that support under the contracts for new-build CCS-equipped generation plant should be at least 15 years in duration.   Government will keep this under review in light of developing CCS financing routes and mechanisms.  Strike prices for early stage CCS projects are likely to be determined through cost, risk and price discovery processes and negotiation. Further detail will be provided alongside the draft delivery plan in July 2013.  Government continues to believe that the baseload CfD model is suitable for the first CCS projects.   Although market circumstances may be somewhat different over the period of time that CCS moves to full deployment. (A decision on the reference price source for baseload generation will be set out alongside the final contract in July 2013.)  Payments under the CfD for eligible CCS-equipped plant would be scaled where appropriate to reflect low carbon content.  For CCS projects selected through the Commercialisation Programme competition, the Government is considering an adjustment against fuel price movements including indexation to gas or coal prices, depending on the fuel used, indexation against 100% of the price movement of the fuel used to generate clean electricity, up to the contracted volume of the plant, and an adjustment to remove any double counting with inflation indexation. The Government is continuing to consider the appropriate process for CCS plants seeking to come forward outside of the Commercialisation Competition and fuel price indexation will be considered as part of wider design decisions.  CfDs for CCS awarded though the FID Enabling process or CCS Competition may include refinancing clauses.  The Government has stated its intention to build additional flexibilities into the EPS to enable coal power stations to temporarily turn off their CCS equipment without being penalised under the EPS in order to supply additional electricity in times of need.   The Energy Bill provides that the Secretary of State is to have the power to suspend or modify emission limits if there is an electricity shortfall or a significant risk of an electricity shortfall in Great Britain (subject to consultation with Scottish and Welsh ministers before the direction is given and to laying a statement of the reasons for making the direction before Parliament after the direction has been given).   The Department of Enterprise, Trade and Investment has similar powers in relation to Northern Ireland.  The Government has also said it wants to explore opportunities for CCS to participate in the Capacity Mechanism by turning off its carbon capture technology at times when extra output is needed, but will need to ensure the arrangements do not lead to double payment of CCS capacity through the CfD and Capacity Market.	The Finance Act 2012 provides for a partial relief for fossil fuels used in CCS plants to reflect the proportion of carbon dioxide captured and disposed of by way of permanent storage.   There is a provision for carbon dioxide captured by a generating station which leaks before it is permanently stored not to affect the station’s carbon capture percentage where the leak did not occur within the grounds of the station or on any other land under the control of, or from any pipeline, facility or installation maintained by, the operator of the station or a person connected to the operator.	The 2011 Budget announced that the Government will not proceed with the CCS levy, but will instead fund CCS demonstration projects from general taxation.  The CCS Cost Reduction Task Force has released an interim report with a full report due early next year, to which the Government will provide a formal response.  The Government launched the ‘CCS Roadmap’ in April 2012, which set out a programme to support CCS deployment.   Measures include funding for the design, construction and operation of Commercial Scale CCS.



Type	Electricity Market Reform	Carbon Price Support	Other
Biomass	<p>The Government intends to ‘zero-rate’ the emissions from biomass fuel when calculating carbon dioxide emissions for the EPS, which is dealt with by restricting the limit to emissions attributable to the use of fossil fuel.</p> <p>Biomass conversion is categorised as a rapid deployment technology and will need to apply under the separate ring-fenced CfD budget for these types of technology.</p> <p>Payments under the CfD for eligible biomass co-firing would be scaled where appropriate to reflect low carbon content.</p> <p>Government is minded that existing RO-accredited co-fired units that convert to full biomass after CfDs become available, will be provided with a one-off choice between support under the RO biomass conversion band or support under CfDs. RO accredited co-firing units that move to enhanced co-firing but do not achieve conversion to full biomass will not be permitted to choose to generate under CfDs.</p> <p>The introduction of competitive price discovery for CfDs could be as early as 2017 for dedicated biomass.</p>		<p>Under RO Banding Review response in July 2012, the Government decided that:</p> <p>The support levels for dedicated biomass will be set at 1.5 ROCs/MWh from 1 April 2013 to 31 March 2016, decreasing to 1.4 ROCs/MWh for new accreditations and additional capacity added after 31 March 2016. Government intends to consult on introducing a supplier cap on dedicated biomass to limit the amount of new build supported under the RO. Government proposes to set a new minimum emissions standard of 240gCO2eq/kWh for new build dedicated biomass stations which use solid or gaseous biomass.</p> <p>The Government has decided to introduce a new biomass conversion band at a level of 1 ROC/MWh (available on a unit by unit basis) and to grandfather support for generators under the biomass conversion band at the rate set from 1 April 2013.</p> <p>Government has decided to provide the option of a CHP uplift for new accreditations and additional capacity added from 1 April 2013 to 31 March 2015.</p> <p>For enhanced co-firing of biomass, the Government will limit support for high-range co-firing in 2013/14 only at 0.7 ROCs/MWh, with support increasing from 1 April 2014 to 0.9 ROCs/MWh. A policy of grandfathering support will be adopted from 1 April 2014 at 0.9 ROCs/MWh.</p> <p>Mid-range co-firing will be set at 0.6 ROCs/MWh, while low-range co-firing has been proposed to be set at 0.3 ROCs/MWh in 2013/14 and 2014/15, with support increasing to 0.5 ROCs/MWh in 2015/16.</p> <p>The Government proposes a band of 0.3 ROCs/MWh in 2013/14 and 2014/15 for standard co-firing of bioliquids, with support increasing from 1 April 2015 to 0.5 ROCs/MWh. Government has decided to impose a cap on the number of bioliquid ROCs at 4% of a supplier's annual obligation.</p>
CHP	<p>The Energy Bill includes a statement that the EPS regulations may provide that emissions attributable to the supply of heat from CHP plants are not attributable to the use of fossil fuel. The proposal made for this in the earlier consultations is to apply a discount of the Qualifying Heat Output multiplied by the emission intensity of a 90% efficient gas boiler. Under this approach, a plant which does not hold a CHPQA certificate would not be able to discount its emissions.</p> <p>The Government has recognised that large-scale fossil fuel CHP plants that export electricity to the grid will face challenges following the removal of their exemption from the Climate Change Levy.</p>	<p>The Finance Act 2012 provides for the Treasury to make regulations to exempt supplies of gas and coal to CHP stations for the part of the supply not referable to the production of electricity, subject to state aid approval.</p> <p>Removal of the exemption from CCL on indirect supplies of electricity made by CHP generators will come into effect from 1 April 2013.</p>	<p>Under the RO a number of technologies, such as biomass, have an uplift in their banding if combined with CHP. In its response to the RO Banding Review Consultation in July 2012, the Government stated that:</p> <p>New CHP accreditations or additional capacity added between 1 April 2013 and 31 March 2015 (relating to a specified list of technologies) will have a choice between power-only RO bands plus the Renewable Heat Incentive (RHI) or the RO CHP band.</p> <p>From 1 April 2015, new accreditations and new additional capacity will not be eligible for the CHP uplift, but may receive support for their electricity output from the RO and for their heat output from the RHI. Any technologies or energy sources currently eligible to receive the CHP uplift which are not eligible for the RHI on 1 April 2015 will remain eligible to apply to receive the CHP uplift until 2017. The banding rates vary depending on which technology the CHP is combined with and the period in question.</p> <p>Government will also grandfather the CHP uplift of 0.5 ROCs for generating capacity receiving the uplift from 1 April 2013.</p> <p>The supplier cap on ROCs from dedicated biomass will not apply to dedicated biomass with CHP.</p> <p>EfW is only able to gain support under the RO, if its combined with CHP. There was a proposal to reduce the rate of support for EfW CHP, but the Government has now decided to leave the support rate at 1 ROC/MWh. EfW plant may be eligible to receive support for their heat outputs under the RHI, but, under existing RHI rules, not if accredited under the RO.</p>
Waste	<p>The definition of fossil fuel for the purposes of the EPS is coal, lignite, peat, natural gas, crude liquid petroleum, bitumen and any substance produced directly or indirectly from them for use as a fuel. The Government stated in May 2012 that this definition is not intended to capture waste which includes materials manufactured from fossil fuel sources if they have not been produced for use as a fuel. This should mean that the EPS does not apply to EfW plants.</p>		<p>See CHP above for EfW plant with CHP.</p>

Type	Electricity Market Reform	Carbon Price Support	Other
Renewables Generally	<p>The allocation of CfDs for renewables will initially take the form of an administrative process, with the strike prices being set by Government.</p> <p>The first EMR delivery plan at the end of 2013 will include the Government’s decisions on CfD strike prices for renewables for the years 2014/15 – 2018/19.</p> <p>Solar (as well as biomass conversion) is categorised as a rapid deployment technology and will need to apply under the separate ring-fenced CfD budget for these types of technology.</p> <p>The Government’s view is that the CfD length for renewables should be 15 years.</p> <p>The reference price for intermittent generation is to be the (hourly) price set by the GB power exchanges (APX and N2Ex) for power sold in a day ahead auction. Whereas, for baseload, the proposal is that it should be based on the forwards market.</p> <p>Government intends to introduce competitive price discovery for CfDs for the more mature renewable technologies once their build times mean that they would be unable to commission to meet the deadline for the 2020 renewables target, which could be 2019 or 2020 for onshore wind. Given the EU 2020 renewables target, and the different build times and stages of development of technologies, it is not deemed appropriate by the Government to set a hard deadline for transition to competitive price discovery for all renewables. Instead the Government believes a phased transition is preferable and necessary.</p> <p>There is a risk of greater exposure to higher cash-out prices for intermittent generation.</p> <p>The evidence that Government received on availability of PPAs, broadly supports the views of the independent generators that the market has shifted in recent years and that generators are finding it difficult to secure PPAs on terms that are as beneficial as they used to be. Government says it is not clear, however, whether the problems in today’s market are likely to endure. The Government will focus on the efficient delivery of the EMR programme and will also take steps with market participants to smooth the transition to the CfD. To ensure that the Government can act in a timely way, should it be necessary, it is seeking powers in the Energy Bill that would enable it to make modifications to electricity supply licences for the purpose of reducing barriers to entry associated with the PPA market.</p>		<p>The Government published a response to the RO Banding Review consultation in July 2012. The banding changes are to take effect from 1 April 2013 for most technologies and from 1 April 2014 for offshore wind.</p> <p>For onshore wind, the Government decided to set the band at 0.9 ROCs/ MWh for new accreditations and additional capacity added in the banding review period (1 April 2013 to 31 March 2017).</p> <p>For solar PV, the Government will publish a consultation on proposals for reduced ROC support for solar PV generating stations which accredit or add additional capacity on or after 1 April 2013.</p> <p>For hydro electricity, the Government decided to set the band at 0.7 ROCs/MWh for new accreditations and additional capacity added in the banding review period (1 April 2013 to 31 March 2017).</p> <p>For wave and tidal stream, the Government decided to set the band at 5 ROCs/MWh provided the generating capacity is installed and operational by 31 March 2017. However, the level of support for installed capacity above 30MW will be 2 ROCs/MWh.</p> <p>For tidal range schemes below 1GW (such as barrages and lagoons) and geothermal, the Government decided to set the band at 2 ROC/MWh for new accreditations and additional capacity added in 2013/14 and 2014/15, stepping down to 1.9 ROCs/MWh for new accreditations and additional capacity added in 2015/16 and 1.8 ROCs/MWh for those added in 2016/17.</p>
Offshore Wind	<p>See also Renewables Generally above.</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 CfD for any turbines that are not registered under the RO on 1 April 2017.</p> <p>The intention is to allow projects to phase under the CfD subject to them adopting appropriate metering arrangements.</p> <p>The introduction of competitive price discovery for CfDs could be as early as 2018 for offshore wind.</p>		<p>The RO Banding Review for offshore wind is to take effect from 1 April 2014. Under the RO Banding Review response, the Government has decided to set the band for offshore wind at 2 ROCs/MWh for new accreditations (and additional capacity added) in 2014/15, reducing to 1.9 ROCs for generating stations accrediting (and additional capacity added) during 2015/16, and to 1.8 ROCs for generating stations accrediting (and additional capacity added) during 2016/17.</p> <p>The relevant band applicable at the time of accreditation of the generating station shall apply to all subsequent phases of turbines forming part of the capacity of the generating station as accredited. Each phase will be eligible for a maximum of 20 years support, subject to registration of the phase before 1 April 2017 and the 2037 end date of the RO.</p> <p>A Ministerial Statement in July 2011 partly addressed concerns about the ability to terminate Crown Estate leases for oil and gas development by confirming existing policy that termination should not occur without appropriate compensation. The Government had committed to working with offshore oil and gas industries to set out guidance on how to resolve conflicts before the end of 2011, but no guidance has yet been announced.</p>
Nuclear	<p>See general discussion above.</p> <p>For nuclear projects, the level of the strike price will be determined through an administrative price-setting process until the conditions are in place to move to competitive forms of price discovery. Further detail will be provided alongside the draft delivery plan in July 2013.</p> <p>The Government has yet to decide on the CfD length for nuclear plants, and considers that it is prudent to form a view following the Financial Investment Decision Enabling process.</p> <p>Government is conducting more analysis to determine the reference price for baseload generation. Government remains of the view that the baseload reference price should be drawn from the forward markets. Government is considering whether a basket of indices, drawn from different points on the forward curve, may provide a viable reference price. A decision on the reference price source for baseload generation will be set out alongside the final contract in July 2013.</p> <p>CfDs for nuclear awarded though the FID Enabling process may include refinancing clauses.</p>		<p>The Energy Bill contains provisions to create the Office of Nuclear Regulation as a statutory body.</p>
Interconnectors/ “Supergrid”	<p>The Government’s preference is for UK-wide strike prices, but in the event that relevant differences in market conditions require it, CfD strike prices in Northern Ireland may be slightly different to those in the rest of Great Britain to reflect those differences.</p> <p>The Government says in the consultation published alongside the Energy Bill that given the complexity of energy trading arrangements between markets, it may in practice prove too difficult for interconnected capacity to participate in the Capacity Market.</p> <p>The Government will give further consideration to how the CfD framework can be applied to non-UK generation, including changes that might be needed to the contract.</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>CPS is likely to result in increased incentives for importing electricity and reduced incentives 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 launched a consultation on 7 December 2012 on a proposed framework to enable coordination of offshore transmission assets.</p> <p>Ofgem is separately considering regulatory issues relating to the transmission connection through its Integrated Transmission Planning and Regulation project (ITPR), within the broader context of the North Seas Countries Offshore Grid Initiative.</p>





# ANNEX 3:

## *Proposed Timetable*

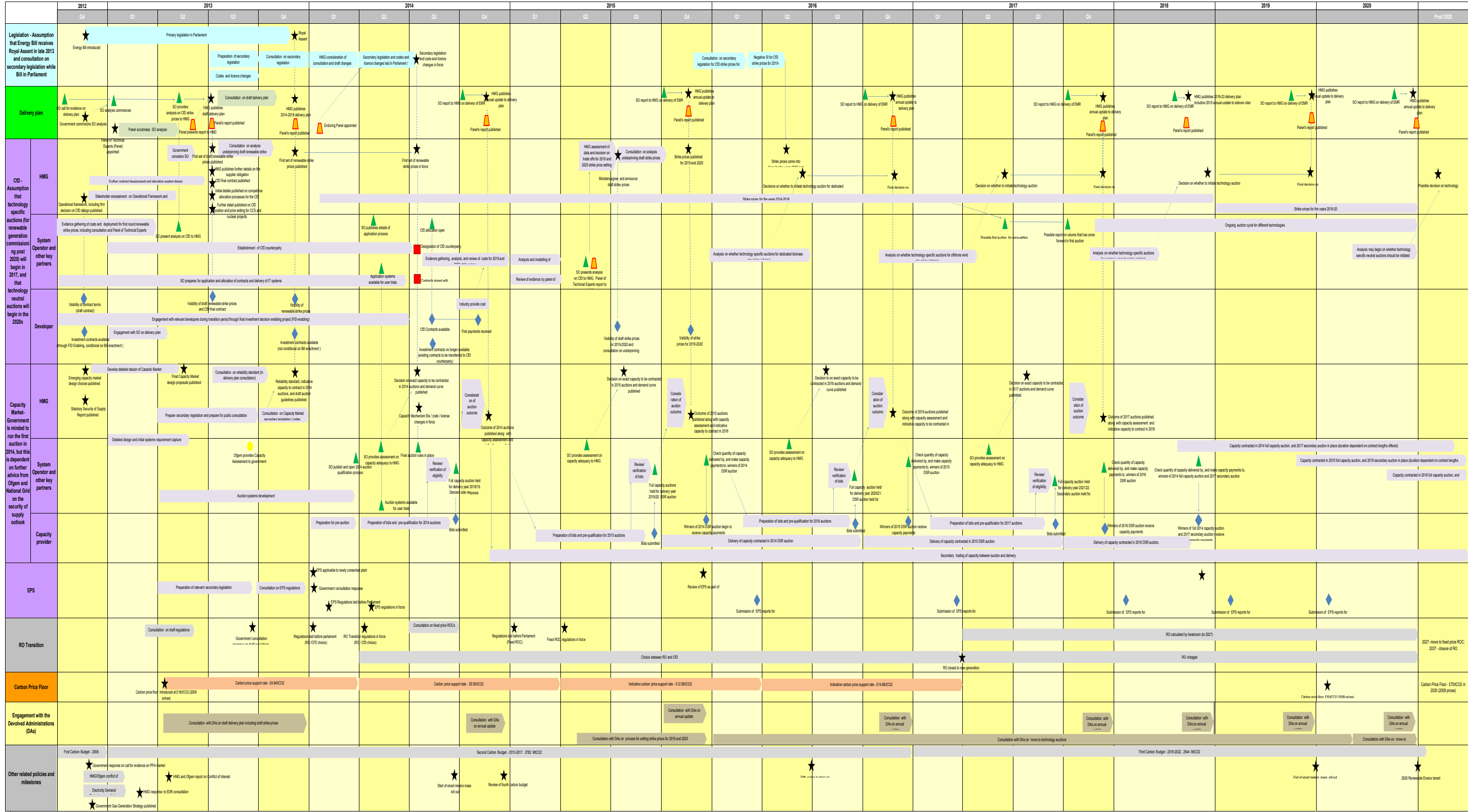
Initiative	Current Position	Next Steps	Proposed Method of Implementation	Expected Implementation Date
Carbon Price Support Mechanism	Main provisions introduced in the 2011 and 2012 Finance Acts. Some secondary legislation is already in force, whilst others have been published in draft form.	Finalise secondary legislation.. Obtain state aid approval for CHP and Energy Intensive Industries exemptions.	2011 and 2012 Finance Acts plus secondary legislation.	1 April 2013.
Electricity Market Reform (EMR)	Energy Bill delivered to Parliament on 29 November 2012 together with response to report of Commons Energy and Climate Change Committee.  Government is proposing to exempt Energy Intensive Industries from the cost of the CfDs and is currently minded to do so through the operation of the supplier obligation.	Aim to have primary legislation in place by the end of 2013.  Secondary legislation to be issued for consultation.  State aid issues to be discussed with EU Commission.  Government has launched a call for evidence around the supplier obligation which is to fund the CfD counterparty. Responses are due by 15 January 2013 and DECC will then respond by July 2013.  Final terms of the CfD will not be set until July 2013  CfD strike prices for renewables to be announced at the end of 2013 in the first CfD delivery plan.  EMR delivery plans will be published every five years with the first in December 2013.  Government and Ofgem are due to jointly report on the consultation (launched alongside the Energy Bill) on potential conflicts of interest of System Operator in the first half of 2013, with a consultation on secondary legislation in Autumn 2013 prior to laying before Parliament in early 2014.  Government intends to consult on the regulations for the EPS in October 2013 and expects that Government will respond to the consultation in January 2014, with the regulations expected to come into force in mid-2014.	Energy Bill 2012 and various secondary legislation.  State aid approvals to be checked.	CfDs to be available from mid 2014 (but in Northern Ireland not earlier than 2016).  EPS intended to apply to any new fossil fuel plant granted development consent after Q1 2014.
Capacity Market	Ongoing consultation on details of Capacity Market structure.	Final design choices for the Capacity Market to be published by May 2013 and secondary legislation and code and licence changes to be developed over Summer 2013.  Decision on participation of RO technology by March 2013.  If running first auction in 2014, Government to consult on final proposals and draft rules from October 2013 onwards.	Energy Bill 2012.  Secondary legislation.	Capacity Market could have first auction in 2014 for a delivery year of Winter 2018-19.  Pilot auctions for delivery of DSR and Storage from 2015-18.
Liquidity Review	Ofgem issued a further consultation on a “Secure and Promote” licence condition 5 December 2012.	Deadline for submissions to Ofgem consultation is 15 February 2013  Government has included powers in the Energy Bill to enable it to act in order to improve wholesale electricity market liquidity if necessary.	Licence Modification.  Energy Bill 2012.	
Impact of EMR on RO	The Energy Bill 2012 provides for the Secretary of State to make a certificate purchase order for the Fixed ROC mechanism.	See also EMR above.  The Government will consult in early 2013 on draft regulations to enable the time limited one-off choice between the RO and the CfD. The regulations will be laid as secondary legislation before Parliament in early 2014 and are likely to come into force on 1 April 2014.  The Government will consult further on the Fixed ROC proposals in Q3 2014. The Government intends to lay the Fixed ROC regulations as secondary legislation in Parliament in Q1 2015, to come into force in Q2 2015.	Energy Bill 2012.  Secondary legislation.	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’.  Fixed ROC to apply from 1 April 2027 to 31 March 2037, when RO will close.

Banding Review	The Government published its response to the RO Banding Review Consultation in July 2012.	Finalise secondary legislation.	Amendment to Renewables Obligation Order.	New bands to be brought into force 1 April 2013 but April 2014 for offshore wind.
Green Investment Bank (GIB)	<p>The Government committed in the 2011 Budget to fund the GIB with £3bn over the period to 2015.</p> <p>The GIB was incorporated in May 2012 as a public company called UK Green Investment Bank plc and received EU State Aid approval in October 2012 for the £3bn funding of the GIB itself.</p> <p>BIS announced that the GIB became operational in November 2012.</p> <p>The State Aid approval contemplates that the GIB will make investments on commercial terms in the following priority sectors - offshore wind, waste (treatment and recycling and energy from waste) and non domestic energy efficiency and the following other sectors – biofuels for transport, biomass power, carbon capture and storage, marine energy and renewable heat.</p> <p>However, the EU Commission reserved its position on whether to approve any aid involved by virtue of the GIB investing in projects and said that in relation to market orientated interventions, the GIB would need to be able to demonstrate upon request of the EU Commission that the market economy investor principle has been respected (MEIP). The EU Commission considers that to satisfy MEIP the GIB interventions would need to be only to make up volume, and the GIB would need to assume the same risks, the same maturity and the same return as would be accepted by commercial operators.</p> <p>BIS's UK Green Investments team (UKGI) had committed £180m of direct investments before the GIB became operational and BIS states that these assets have now been transferred to the GIB.</p>	<p>Obtain further State Aid approvals:</p> <p>(Note that further State Aid approvals would be required for:</p> <p>Any funding injection exceeding the circa £3bn already notified to the EU Commission;</p> <p>- Any additional sectors not among the sectors already notified to the EU Commission as being the remit of the GIB;</p> <p>- Granting of the right to borrow, directly or indirectly under the umbrella of any institution;</p> <p>- Any funding beyond the four year period commencing on the 17 October 2012.)</p> <p>Finalise legislation.</p>	Enterprise and Regulatory Reform Bill. (Note the Bill has not yet become law so we understand the Government considers that this legislation is merely facilitative rather than essential to the GIB's current operations.) Further EU State Aid approvals.	<p>The GIB has been operational since November 2012, subject to the current parameters within which it is authorised to operate.</p> <p>The GIB being given full borrowing powers has always been stated to be subject to public sector debt falling as a percentage of GDP and further state aid approval being granted. The former was previously expected to occur in 2015, but in the December 2012 Autumn Statement the Chancellor stated that this target is not expected to be reached until 2016/2017.</p> <p>The Enterprise and Regulatory Reform Bill is expected to come into effect in 2013.</p>
Gas Strategy	DECC published its Gas Generation Strategy, on 5 December 2012.	<p>See also Capacity Market, Liquidity Review and Cash-Out Reform above.</p> <p>There is an important inter-dependency on whether the 4th Carbon Budget is revised upwards.</p> <p>Government will consider whether there is a case for further measures to encourage gas storage and will publish its findings in Spring 2013.</p> <p>Office for Unconventional Gas and Oil to be established.</p> <p>Government is also consulting for shale activities on:</p> <p>- an appropriate fiscal regime;</p> <p>- an appropriate pattern of licensing; and</p> <p>- an updated Strategic Environmental Assessment.</p> <p>Future Annual Energy Statements will include a report on overall progress on the gas generation strategy.</p>		
Electricity Demand Reduction Project	Government published a consultation around the time of the Energy Bill on Electricity Demand Reduction: options to encourage permanent reductions in electricity use.			

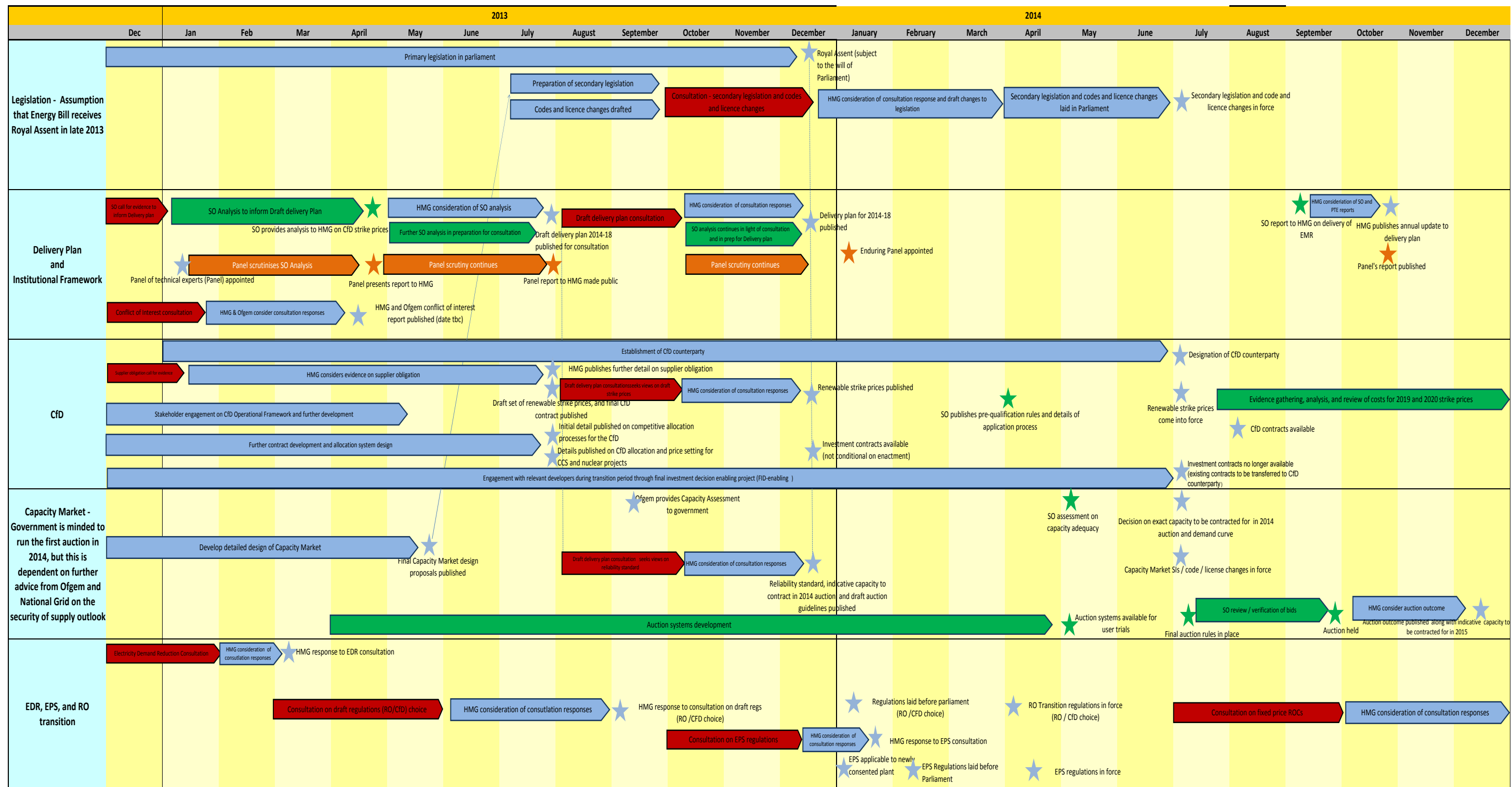


Indicative EMR Implementation Roadmap

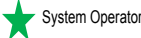
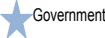
INDICATIVE EMR IMPLEMENTATION ROADMAP



EMR 2012/13/14 Short Term Road Map



Key:



# *Key Contacts*

# Key Contacts

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