



**Consumer
Focus**
Campaigning for a fair deal

Consumer Focus response to DECC consultation on Electricity Market Reform

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About Consumer Focus

Consumer Focus is the statutory consumer champion for England, Wales, Scotland and (for postal consumers) Northern Ireland.

We operate across the whole of the economy, persuading businesses, public services and policy makers to put consumers at the heart of what they do.

Consumer Focus tackles the issues that matter to consumers, and aims to give people a stronger voice. We don't just draw attention to problems – we work with consumers and with a range of organisations to champion creative solutions that make a difference to consumers' lives.

Meeting the challenge ahead

Executive summary

Context

The energy sector faces unprecedented challenges – and consumers face unprecedented costs – as we seek to decarbonise and replace our ageing and carbon intensive infrastructure. The tension between meeting carbon targets and meeting affordability targets (ie for fuel poverty) is becoming acute, and it will be a challenge for policymakers to find ways to counterbalance competing drivers. The modelling attached to the EMR consultation suggests that wholesale electricity prices may double by 2030 in real terms even under existing policies, and that the EMR proposals will inflate them still further at least until the mid-2020s.

The societal cost of ever-increasing energy prices will be great, both for individual consumers struggling to pay their bills and for the drag it may create on the wider economy if it waters down disposable incomes and dilutes the international competitiveness of our economy. It will be vitally important that the Government finds ways to help consumers to help themselves, by making sure efficiency programmes such as the Green Deal, Smart Meter roll-out and the new Energy Company Obligation are effective and attuned to their needs, and by removing barriers to entry and competition to ensure that costs are kept to a minimum.

Against this backdrop, it is imperative that the EMR delivers on carbon and security of supply targets at lowest cost. We feel that there is some 'fat' in the current proposals, most notably in the overlaps between the carbon price support mechanism and Feed-in Tariffs (FiTs) and in the suggestion that a capacity payments mechanism be introduced alongside reform to the electricity 'cash out' mechanism (which already provides a means to reward flexible capacity).

Should FiTs be used as an alternative to, rather than in addition to, carbon price support?

The EMR contains four measures, but while the Emissions Performance Standard and Capacity Payments mechanism each appear to be tackling discrete issues (preventing non-abated coal plant from being built and ensuring that peaking plant is available to deal with intermittency respectively) the carbon floor price and FiTs with Contracts for Difference (CfD) appear to be separate approaches to tackling the same issue – encouraging new low carbon generation.

It is not clear that both measures are needed to tackle the same issue. We note that a number of witnesses to the Energy and Climate Change Committee have challenged whether it is necessary to introduce carbon price support if a FiTs with CfD approach is implemented and we have sympathies with that view.

This is not to suggest that the FiTs with CfD option is particularly attractive in its own right – it would still likely result in material increases in consumer costs and there are formidable implementation issues that would still need to be considered and resolved – but in comparative terms it would appear to provide consumers with a better balance of risk and reward than carbon price support would.

We illustrate some of the comparative weaknesses in the carbon price support approach when compared to the FiTs with CfD approach in Table 1.

Table 1: Comparison of FiTs with CfD and carbon price support approaches

Issue	Carbon price support	FiTs with CfD
Impact on consumer bills	Price rises, front loaded. Wholesale costs inflated from implementation date, even if new generation only delivered years later.	Price rises, tied to delivery. Additional consumer costs only incurred once new renewable generation is delivered (ie once CfD can be called on)
Linkage of consumer benefit with consumer cost	Muffled. Likely to incentivise low carbon generation, but consumers will pay more regardless of how much and when it is delivered (it is an incentive, not a guarantee)	Direct. Consumers only incur costs if new low carbon capacity is delivered.
Increase in investor certainty	Moderate. Governments are not bound by their predecessors (or their own) tax decisions. Long term cross-party consensus needed. Carbon price is only one component of export price. A precedent for having introduced retrospective tax hikes is generally undesirable if you are trying to create investor confidence. Regulatory uncertainty cannot be hedged by market participants.	High. Counterparty risk remains, but contracts are more binding than government tax statements. Guaranteed export price. Price/market uncertainty can be hedged by market participants.

Issue	Carbon price support	FITs with CfD
Temporal impact and competitive distortion	Retrospective as well as prospective. Windfall gains for existing low carbon build. May aggravate security of supply problems if encourages accelerated plant closure this decade.	Prospective. No windfall gains.
Security of supply incentives	Negative. May encourage existing peaking plant – often fossil fuel based – to close earlier than otherwise would. Discourages new peaking plant.	Negative, but probably to a lesser extent. Unlikely to affect existing peaking plant, but may discourage new peaking plant (ie comparatively less attractive compared to other investments).
	In both cases we acknowledge that a number of counter-acting measures can help ensure security of supply. However, we believe that the FITs with CfD approach is the 'least worst' option with regards to ensuring security of supply.	
Consumers share of risk	Downside only. Proposal is for 'top-up' to desired trajectory. No suggestion that tax will be refunded if EU ETS delivers a stronger carbon price.	Both downside and upside. Debit or credit to generator (and indirectly, to consumer) depending on wholesale price.

If the Government is determined to press on with the introduction of carbon price support regardless we would like to see the significant tax receipts generated by that proposal – estimated by the Treasury at between £200 million and £400 million per year even under the lowest of the three tax scenarios presented¹ – hypothecated and returned to consumers, with priority given to those least able to pay. For example additional funds could be made available for energy efficiency measures (to reduce customer bills) or to increase social price support funding.

Ensuring that this intervention is fit for purpose

We agree with the preferred policy option of FiTs with CfDs rather than a Fixed FiT or Premium FiT approach. Both of the latter have significant design flaws.

¹ Page 7, impact assessment.

Premium FiT

The Premium FiT approach brings with it risks of over or under remunerating zero carbon generation depending on how this premium interacts with future carbon and fossil fuel prices. We note, and agree with, Redpoint's conclusions that decarbonisation would be at risk if future gas and carbon prices are lower than those expected at the time the Premium was set and that conversely consumers would be at risk of paying too much if future gas and carbon prices are higher than those that were expected. Forecasting future commodity prices with any confidence is notoriously difficult and we consider that this lack of robustness, were the future to deviate from forecasts is a fairly fundamental flaw with a Premium scheme design.

We also agree that investors would face increased risk under this approach compared to either the Fixed or CfD approaches: these higher costs are likely to be passed through to consumers. More broadly, we note that the Premium FiT approach is inherently similar to the existing Renewable Obligation scheme. This naturally begs the question of why replace an intervention that is regarded as unfit for purpose with an inherently similar intervention yet expect it to provide a better outcome?

Fixed FiT

The Fixed FiT approach appears to transfer an excessive level of risk from generators to consumers. We agree that it would be likely to result in significant new zero carbon generation being built but we do not think that it would offer consumers value for money in achieving this.

While investors' cost of capital would be reduced, the extent of consumer exposure to costs may be increased when compared to other models. This is because this approach would be predicated on a central buyer, implicitly Government, being able to credibly set the minimum fixed payment needed to bring forward new generation. In many cases these are nascent technologies with uncertain and evolving costs and we consider that these uncertainties, combined with the inherent information asymmetry between the understanding that the Government has on the economics of a project when compared to the investors in that project, are likely to result in a high likelihood that the Government could end up paying over the odds.

In addition, the Fixed FiT approach would mark such a fundamental departure from existing market arrangements – divorcing investor returns entirely from wholesale market prices – that we consider that there could be a risk of a complete investment hiatus until any scheme is finalised. This may exacerbate security of supply problems.

FiT with CfD

While we cannot support either a Premium or a Fixed FiT scheme, we can provide qualified support for a FiT with CfD approach. This does appear to provide a framework that could stimulate green investment while still ensuring that investors are exposed to incentives to invest efficiently, provided the scheme design is sensible.

We consider that such a scheme would need to have a number of features or associated reforms in order for it to work in consumers' interests:

- That the strike price must be set through a market based mechanism, such as auctioning, rather than be a centrally administered purchase price

- That it must be technology neutral: higher cost technologies should not be protected from competition with lower cost technologies
- That it should contain opt-out and buy-out mechanisms
- You must create a liquid wholesale power market

Market based strike price

Firstly, the strike price for the CfD must be set through a market based mechanism, such as auctioning, rather than be a centrally administered purchase price. As previously indicated, we think that information asymmetries between developers and Government are likely to leave consumers at risk of overpaying were an administered price approach adopted.

The design of the auctions will need to include steps to mitigate market power. This might include making the validity of the auction subject to a minimum volume, and number of bids, in order to ensure that contracts are only struck where there has been genuine competition. Similarly it would be prudent to release volumes in to auctions in comparatively small tranches such that there is a genuine risk of bidders losing out if they do not keenly price their bids. We note that one of the features of the PJM capacity market is that auction volumes are not fixed absolutely, ie if an auction round realises low bid prices the auctioneer may intentionally procure excess capacity while if an auction round realises high bid prices the auctioneer may choose to procure less than targeted. We think this principle could be applied to CfD auctions both to restrict gaming opportunities and to minimise consumer costs.

Technology neutral

The second qualification we make is that the CfD process must concentrate on delivering zero carbon at lowest cost. We expect that an auction based approach would be likely to 'pick winners' among technology types, with some forms of zero carbon technology better able to submit competitive bids than others. This in turn, is likely to result in lobbying for exclusions, for example protected auctions that only certain types of technology can enter, or 'top up' payments for technologies otherwise unable to compete.

We would urge the Government to resist pressure for any such exclusions because we think that it is unlikely that these could be justified on any of the three core public policy goals of energy: decarbonisation; affordability; and security of supply.

Exclusions would be likely to have:

- a neutral effect on decarbonisation (because the competition they are seeking protection from is also zero carbon)
- a negative effect on affordability (because investment in higher cost technologies would increase consumer prices)
- a neutral effect on security of supply (because the wider benefit of ensuring that peaking or flexible plant is available is likely to be separately incentivised through the capacity mechanism reforms elsewhere in the EMR package)

We think that the private sector is better placed to manage the research and development risk involved with bringing new technologies to market than consumers are and would oppose any approach that allowed all the risk of developing new technologies to be transferred across to consumers.

Technologies such as Carbon Capture and Storage (CCS) are already subject to significant public subsidies through other policy instruments. In any event, the phased auctioning of FiTs that we envisage should allow currently immature technologies to enter the market when they are sufficiently developed to compete; the door would not be closed to them.

Opt-out and buy-out mechanisms

Thirdly, zero carbon project developers should be able to opt out of the FiTs scheme (either at inception, or through the inclusion of termination clauses in the CfD that allow either counterparty to buy-out the contract). We are conscious that some renewable technologies – notably onshore wind – are already relatively close to the point where they are economically viable without subsidies. As the relative competitiveness of different technologies evolves over time it may not be necessary for government to ‘stand behind’ them to ensure their viability. Indeed, some investors may prefer to take the risk of greater exposure to wholesale price volatility over being bound to the same long-term strike price (we note your observations on the so-called ‘winner’s curse’ of the Non Fossil Fuel Obligation auctions whereby bidders tended to be optimistic and often subsequently came to regret their bids). Insofar as possible the FiT design should avoid distorting the market; so if zero carbon projects are happy to go it alone outside the scheme this should be facilitated.

Power market liquidity

Fourthly, you must take steps to sort out the problem of persistent illiquidity in the GB wholesale power market. The effectiveness of a FiTs with CfD scheme is heavily contingent on the existence of a credible market reference price (because this will form ‘the D in the CfD’); a liquid market is a pre-requisite for this. Illiquid markets provide unreliable long term price signals. Thin trading will tend to inflate the risk premia that are built in to market prices – ultimately paid for by consumers. We hope that when Ofgem announces the results of its current market review in March that this will finally include remedies to tackle this problem but if it does not then we would urge the Government to step in and find a solution as a matter of urgency.

Emissions Performance Standard

If our support on the FiTs with CfD proposal is somewhat cautious and heavily qualified, we can provide warmer support for the proposed Emissions Performance Standard (EPS). We are in broad agreement with both the policy intent of this component of the package (to prevent the building of new unabated coal-fired generation) and with the preferred approach that DECC proposes to deliver on this intent.

We see the EPS as more of a statement of political intent to decarbonise than the principal policy driver to deliver on that intent. Under the existing arrangements, a ‘dash for gas’ is far more likely than a ‘dash for coal’. The likelihood of major investment in unabated coal would decrease still further with the stimulus for zero carbon generation provided by the FiT. We would therefore be surprised if significant levels of unabated coal plant were brought forward even were the EPS measure omitted from the EMR package. But nonetheless, the inclusion of an EPS would provide a useful legislative backstop; in effect, an insurance policy on those other measures given their implementation difficulties.

We agree with the broad outline of the EPS that you envisage:

- applying it only to new generating plants
- with the EPS threshold applicable on the day the plant was consented remaining unchanged during its operating life ('grandfathering')
- with the EPS initially set at a level that will allow fossil fuel plants with CCS demonstration projects to go ahead

It is particularly crucial that the EPS is applied purely prospectively. Two of the core aspirations of the EMR package are to foster confidence to invest in UK generation assets and to tackle security of supply problems; imposing retrospective rule changes that create windfall gains and losses and force some existing generation to close early would run directly contrary to both of these aims.

We would like to see the commitment to applying the EPS purely prospectively hard coded in the enabling legislation along with clear safeguards that would prevent 'knee-jerk' tightening of these standards. If short notice revisions are not prohibited this may discourage new investments because potential investors will lack certainty on what threshold may be applied at the time a proposed new generation plant gains consent (and therefore lack certainty on the viability for going forward with that investment). We would suggest that the enabling legislation contains a statutory deminimis notice period for any revisions to the EPS to guard against this risk.

Capacity payments mechanisms

The Government's proposals on introducing a new capacity payments mechanism are not particularly clear. The consultation appears to argue for a dual-track approach, with Ofgem looking at reforms to a number of existing mechanisms (including the electricity cash out and balancing service arrangements) while DECC separately leads on the introduction of an capacity payments mechanism that is targeted, centrally administered and volume based.

This appears to be a recipe for duplication. It must be noted that the electricity cash out and balancing services arrangements already are a targeted, centrally administered and volume based approach to incentivising capacity.

Targeted, because the cash-out regime seeks to apply the marginal costs of balancing energy shortfalls on those market participants who have not procured energy to meet their demand, and because the arrangements for procuring balancing services require the System Operator (SO) to procure spare capacity to meet specific purposes (such as Short Term Operating Reserve) rather than paying all generators regardless of need.

Centrally administered, because a single body (the SO) has responsibility for accepting bids and offers in the balancing mechanism and for procuring other balancing services.

Volume based, because energy is purchased on the basis of need – prices are not administered but are a function of the market's response to those volume signals.

We are worried that if DECC develops a separate scheme with similar characteristics that we may end up with two separate sets of arrangements trying to deliver the same goal. This may create confusing market signals as well as increasing consumer costs ie through generators being paid twice to provide the same service.

We would prefer a single body to lead on developing a single scheme. Your analysis of the options for reform, combined with that conducted by Ofgem as part of its Project Discovery study, suggest that there is still considerable scope for delivering security of supply through incremental improvements to existing arrangements.

Evolution is less risky than revolution, and our preferred approach would therefore be for Government to task Ofgem with looking at whether a targeted capacity payments mechanism can be delivered through reforms to the electricity 'cash out' and balancing services arrangements.

Work in that area should be accompanied by remedial work to tackle the illiquidity of the wholesale power market. Sharper 'cash out' signals may create stronger incentives on suppliers to forward contract to avoid security of supply shortfalls, but suppliers will only be able to act on those incentives if wholesale markets are liquid – ie there is little point in sending out sharper incentives to 'go to market' if there is no market to go to.

You should also look to identify and resolve problems faced by the demand side in responding to the capacity signals sent out by the balancing regime. Persistent anecdotal evidence suggests that the costs of market entry, from conducting the due diligence to become licensed through to establishing the credit lines and trading systems to participate in the imbalance trading arrangements, are high and discourage small scale entry.

There are significant advantages in facilitating greater demand side participation, both to aid consumers in engaging with and benefitting from the low carbon agenda (ie by exposing them to carrots and not simply to sticks) and in mitigating the overall cost of decarbonising the energy sector by reducing the need to expand or reinforce the network when compared with bringing on remote transmission-connected generation. We think you should consider whether there are ways to make it easier for demand side response to bid in to the balancing mechanism.

Building a better package

We recognise the ambition in the Government's proposals but think that a narrower package may be able to decarbonise the economy and guarantee security of supply more cost effectively. We would see this package as comprising:

- FiTs with CfD (subject to the range of design conditions previously outlined, including that the strike price should be set through a market based mechanism such as auctioning and must be technology neutral)
- EPS (Option 1, subject to it being grandfathered, purely prospective and with the inclusion of statutory safeguards to prevent knee-jerk changes to the threshold)
- An instruction to Ofgem to develop a package to improve the cash out regime such that it fully prices the value of marginal (peaking) plant and to improve the liquidity of the wholesale power market such that market participants can actually respond to sharper imbalance signals

This package would exclude carbon price support because we consider that the FiTs with CfD approach provides a much better targeted mechanism to deliver decarbonisation than carbon price support does – see Table 1 on page 5 for an outline of our reasons for holding this view. We do not think that it is necessary to implement both measures.

We are also unconvinced that a discrete, new, targeted capacity payments mechanism regime is needed. Your analysis (and that provided by Ofgem during Project Discovery) suggests that a range of incremental reforms to the existing regime may be possible. We would prefer that you exhausted options for evolution before you proceed to revolution.

Whatever you choose to implement, a solution to the problem of wholesale market illiquidity needs to be found. This is a precondition if a CfD approach is to work, as a credible market reference price will be needed to form workable strike prices. But purely as a measure in its own regard – ignoring the four proposed EMR measures – improving the liquidity of the wholesale power market should encourage investment in new generation and could help to ease security of supply concerns without the need for government or consumer subsidy. Liquid markets would also facilitate retail market competition, creating healthy pressure on suppliers to keep their prices down.

Response to questions

Please find below our answers to the specific questions posed in the consultation document.

Question 1: Do you agree with the Government's assessment of the ability of the current market to support the investment in low-carbon generation needed to meet environmental targets?

The assessment is broadly reasonable, although this question is rather narrowly concentrated purely on the question of the Government's ability to meet environmental targets. Government has other binding commitments, notably around fuel poverty, that it is missing, and likely to continue missing, under both the current market and proposed market arrangements.

Question 2: Do you agree with the Government's assessment of the future risks to the UK's security of electricity supplies?

Much, though not all, of it appears reasonable.

We remain surprised that policy makers continue to be quite so confident that there will be very significant electrification of heating in the short to medium term, prompting a need for increased generation capacity. It must be noted that gas is already a significantly cheaper source of energy for domestic heating than electricity is, and its comparative advantage is only likely to widen as new levies are predominantly added to electricity, not gas, bills. Why would you expect consumers to switch en masse to a more expensive source of heating? This appears a deeply counter-intuitive assumption.

Although we agree with your observations on how investment cycles manifest themselves we do not agree with your conclusion that their outcomes are undesirable. You note that investors are subject to increased incentives to invest as generation capacity tightens, and reduced incentives to invest as it widens; reaching a conclusion that this is a bad thing because it could lead to low capacity margins in some years. We do not agree – investment responding to clear supply and demand signals strikes us as efficient behaviour rather than inefficient behaviour. The implied alternative, that the market should always seek to deliver large capacity surpluses regardless of demand, is not in consumers' interests as it is likely to encourage unnecessary investment that will ultimately flow through to retail bills.

We recognise that Time of Use tariffs are unusual in the domestic and SME sectors but think you need to recognise that while smart metering may make these more possible that there are still some formidable obstacles to widespread consumer take-up, even in a smart meter world. There is significant evidence that even in a world of 'dumb' meters consumers find tariffs very confusing.

In its 2008/09 Probe, Ofgem found that very significant numbers of consumers find it difficult to compare tariffs and establish which is most suitable for their need; two-fifths of consumers switching energy tariffs saved no money as a result of doing so², despite a desire to save money being the overwhelming rationale for most consumers wanting to switch³.

Given widespread lack of understanding of existing tariff structures, there is a real risk that consumers will be unwilling or unable to engage with even more complicated tariff structures. There are also limits to how proactively consumers are able to engage with dynamic pricing signals; for example, their ability to respond to overnight price signals will be limited. Technology may help to bridge this gap but the market will need to find ways to ensure that consumers are rewarded appropriately for deploying this technology if the market is to act in their interests. Furthermore, consideration should be given to the removal of regulatory barriers in the supply side to ensure that market participants are able to exploit commercial opportunities which ultimately enhance consumer welfare.

Feed-in Tariffs

Question 3: Do you agree with the Government's assessment of the pros and cons of each of the models of feed-in-tariff (FIT)?

Broadly, yes.

The Premium approach, as an effective extension of the RO, provides the lowest transition risk of any of the alternatives and should also be the cheapest FIT approach to implement (though not necessarily to operate). Consumer exposure to additional costs is also clearly capped under the premium approach – unlike CfDs where the central buyer may have uncapped risk depending on movements in the market reference price.

But in other areas the Premium approach is quite a weak model. It has such significant similarities with the RO scheme that it naturally begs the question: if the RO is unfit for the future, how can we be confident that a Premium approach will work? Indeed, this scepticism appears to be borne out by the modelling. We note Redpoint's conclusions that decarbonisation would be at risk if future gas and carbon prices are lower than those expected at the time the Premium was set and that conversely consumers would be at risk of paying too much if future gas and carbon prices are higher than those that were expected. Commodity market movements are impossible to accurately predict and it seems foolish to tie ourselves to a model that may only work in some scenarios.

More broadly, although consumer exposure to costs would be capped under the premium approach (ie to the amount of the premium payments) the scheme design means that the payments may be inefficiently incurred. The Premium would be set by Government and it does not have a good track record in setting administered prices; we note that the RO has been subject to frequent 're-banding'. A fixed Premium approach is also inherently likely to correlate clumsily with the dynamic market price it is intended to supplement. If wholesale prices are higher than expected then consumers may end up paying a subsidy to schemes that would have been economically viable even without subsidy.

² Source, Ofgem 'Energy Supply Probe – Initial Findings Report', October 2008.

³ A recent Ipsos Mori poll conducted for Ofgem suggested that saving money was the main trigger for switching for 77 per cent of electricity consumers. Only 1 per cent stated that their main trigger for switching was to move to a greener tariff. Source: 'Customer Engagement with the Energy Market – Tracking Survey', 25 March 2010.

Conversely if wholesale prices are depressed then the Premium may not be sufficient to bring forward zero carbon generation.

The problem of Government lacking appropriate expertise to set administered prices is also a major problem with the Fixed FiT approach. In many cases these are nascent technologies with uncertain and evolving costs and we consider that these uncertainties, combined with the inherent information asymmetry between the understanding that the Government has on the economics of a project when compared to the investors in that project, are likely to result in a high likelihood that the Government could end up paying over the odds – and transferring these costs on to consumers.

The Fixed FiT approach transfers an excessive level of risk from generators to consumers. Although it would be likely to result in significant new zero carbon generation being built, we do not consider that it would offer consumers value for money in achieving this. While the cost of capital to investors may be reduced, the costs to consumers may be increased when compared to other models because of these problems in reaching an efficient administered price.

The Fixed FiT approach would also mark the most fundamental departure from existing market arrangements of any of the options; creating a parallel market where investor returns are entirely divorced from wholesale market prices. Although all of the FiT options will create some distortions in the competitive landscape, they would be most profound under this model. Both the Fixed and the CfD models create 'watersheds' where the financial consequences of investing under old rules (ie the RO) versus under the new rules could be quite profound – as such, either approach could create an investment hiatus if the Government is minded to approve but needs more time to work develop its ideas. This problem is less acute with the Premium approach because of its conceptual consistency with the existing RO scheme.

While we cannot support either a Premium or a Fixed FiT scheme, we can provide qualified support for a FiT with CfD approach. This does appear to provide a framework that could stimulate green investment while still ensuring that investors are exposed to incentives to invest efficiently. We consider that such a scheme would need to have a number of features or associated reforms in order for it to work in consumers' interests.

Firstly, the strike price for the CfD must be set through a market based mechanism, such as auctioning, rather than be a centrally administered purchase price. As previously indicated, we think that information asymmetries between developers and Government are likely to leave consumers at risk of overpaying were an administered price approach adopted. The design of the auctions will need to include steps to mitigate market power. This might include making the validity of the auction subject to a de minimis volume and number of bids, in order to ensure that contracts are only struck where there has been genuine competition. Similarly it would be prudent to release volumes in to auctions in comparatively small tranches such that there is a genuine risk of bidders losing out if they do not keenly price their bids. We note that one of the features of the PJM capacity market is that auction volumes are not fixed absolutely, ie if an auction round realises low bid prices the auctioneer may intentionally procure excess capacity while if an auction round realises high bid prices the auctioneer may choose to procure less than targeted. We think this principle could be applied to CfD auctions both to restrict gaming opportunities and to minimise consumer costs.

The second qualification we make is that the CfD process must concentrate on delivering zero carbon at lowest cost. We expect that an auction based approach would be likely to 'pick winners' among technology types, with some forms of zero carbon technology better able to submit competitive bids than others. This in turn, is likely to result in lobbying for exclusions, for example protected auctions that only certain types of technology can enter, or 'top up' payments for technologies otherwise unable to compete.

We would urge the Government to resist pressure for any such exclusions because we think that it is unlikely that these could be justified on any of the three core public policy goals of energy: decarbonisation; affordability; and security of supply. Exclusions would be likely to have:

- a neutral effect on decarbonisation (because the competition they are seeking protection from is also zero carbon)
- a negative effect on affordability (because investment in higher cost technologies would increase consumer prices)
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We think that the private sector is better placed to manage the research and development risk involved with bringing new technologies to market than consumers are and would oppose any approach that allowed all the risk of developing new technologies to be transferred across to consumers. Technologies such as Carbon Capture and Storage (CCS) are already subject to significant public subsidies through other policy instruments. In any event, the phased auctioning of FiTs that we envisage should allow currently immature technologies to enter the market when they are sufficiently developed to compete; the door would not be closed to them.

Thirdly, zero carbon project developers should be able to opt out of the FiTs scheme (either at inception, or through the inclusion of termination clauses in the CfD that allow either counterparty to buy-out the contract). We are conscious that some renewable technologies – notably onshore wind – are already relatively close to the point where they are economically viable without subsidies. As the relative competitiveness of different technologies evolves over time it may not be necessary for Government to 'stand behind' them to ensure their viability. Indeed, some investors may prefer to take the risk of greater exposure to wholesale price volatility over being bound to the same long-term strike price (we note your observations on the so-called 'winner's curse' of the Non Fossil Fuel Obligation auctions whereby bidders tended to be optimistic and often subsequently came to regret their bids). Insofar as possible the FiT design should avoid distorting the market; so if zero carbon projects are happy to go it alone outside the scheme this should be facilitated.

Fourthly, you must take steps to sort out the problem of persistent illiquidity in the GB wholesale power market. The effectiveness of a FiTs with CfD scheme is heavily contingent on the existence of a credible market reference price (because this will form 'the D in the CfD'); a liquid market is a pre-requisite for this. Illiquid markets provide unreliable long term price signals. Thin trading will tend to inflate the risk premia that are built in to market prices – ultimately paid for by consumers. We hope that when Ofgem announces the results of its current market review in March that this will finally include remedies to tackle this problem but if it does not then we would urge the Government to step in and find a solution as a matter of urgency.

Question 4: Do you agree with the Government's preferred policy of introducing a contract for difference based feed-in-tariff (FIT with CfD)?

Yes, we do. For our reasons for holding this view see our answer to Question 3.

Question 5: What do you see as the advantages and disadvantages of transferring different risks from the generator or the supplier to the Government? In particular, what are the implications of removing the (long-term) electricity price risk from generators under the CfD model?

Mitigating risk is not a costless exercise. Reducing investor exposure to risk simply pushes those costs elsewhere; directly on to Government, and indirectly on to consumers and taxpayers.

At a simple level, the costs of managing risk reduce where those exposed to the costs are able to mitigate these risks, and increase where they are not. This suggests that transferral of risks from market participants to Government should be constrained to those circumstances where Government is better able to mitigate consumer risks than investors are.

There are very few instances where this will be the case. Governments are better placed to manage policy risks – for example, providing certainty that market design provides a level playing field and will be stable for a number of years – than investors can be. Markets cannot hedge regulatory risk. Government is also better placed to manage societal risks that are qualitative or hard to price in to market models; for example, the risks of social inequity.

But in the vast majority of areas investors are better placed to manage risk. Investors are clearly better placed to manage off-take and balancing risk than Government is, because they are managing the generating assets day-to-day. Markets are well placed to provide mechanisms which hedge market risks, such as price volatility.

In general terms, investors are also much better placed to manage both short term and long term electricity price risk than the Government is. But, without Government intervention, they would be likely to do so through following a higher carbon route. In particular, a second dash for gas is plausible given that it has lower technology and commodity risks and costs than other forms of generation (especially while gas fired plant tends to set the marginal price of electricity). It should be noted that from an affordability perspective, this would be a welcome outcome for consumers in the short to medium term.

In the longer term, the costs of climate change may make such an approach unsustainable. We are not qualified to comment on the wider costs to society of climate change. But we think that Government willingness to take on long term electricity price risk would need to be predicated on it being highly confident that the increased costs to consumers (for energy) would be outweighed by reduced costs to citizens (including energy consumers) from climate change.

Question 6: What are the efficient operational decisions that the price signal incentivises? How important are these for the market to function properly? How would they be affected by the proposed policy?

As highlighted in our answer to Question 5 above, we think that investors are generally better placed to manage risks than government – this also goes for ongoing operational decisions. Insofar as is possible investors should remain exposed to the electricity price, off-take and balancing risk associated with their plant because this will incentivise them to invest, maintain and operate those assets efficiently. This is important to keep down consumer costs.

The CfD and Premium approaches to FiT are both to some extent compatible with the existing market design but a Fixed FiT approach is not, because investor returns would be divorced from market prices under that model.

Question 7: Do you agree with the Government's assessment of the impact of the different models of FiTs on the cost of capital for low carbon generators?

Yes, it appears reasonable.

We would caution against viewing reduced cost of capital as a direct proxy for increased affordability though. While the modelling suggests that the Fixed FiT results in the greatest decreases in the cost of capital to investors, it does not follow that this will result in the lowest cost to consumers. As highlighted previously, the Fixed FiT approach is based on the Government being able to set efficient administered prices – a very big, and not very credible, ask. If the Government sets Fixed FiT rates that are too generous then consumers are likely to pay more than they need to – ie decreases in the cost of capital may be outweighed by increases in the *volume* of capital that consumers are asked to fund.

We note that the Redpoint modelling (Table 4 in the consultation document) suggests only a fractional reduction in cost of capital would result from pursuing a Fixed FiT approach when compared to a FiT with CfD approach (and indeed, that there would be no reduction at all in the cost of capital for the majority of developers). We do not consider that this benefit is sufficient to counterbalance the wider weaknesses in the Fixed FiT model.

Question 8: What impact do you think the different models of FiTs will have on the availability of finance for low-carbon electricity generation investments from both new investors and the existing investor base?

This is more a question for investors than consumers; we would simply note that investor interests and consumer interests are not necessarily aligned on the EMR. While displacing risks from investors on to Government (and by extension consumers) should increase the availability of finance for low carbon investments it may increase costs to consumers where Government is less able to manage those risks efficiently than investors are. For example, as previously highlighted, we do not think Government is well placed to create credible administered prices under a Fixed FiT approach that are more efficiently derived than those that would result from a market based model such as the CfD approach.

Question 9: What impact do you think the different models of FiTs will have on different types of generators (eg vertically integrated utilities, existing independent gas, wind or biomass generators and new entrant generators)? How would the different models impact on contract negotiations/relationships with electricity suppliers?

In areas the models are still short on the design detail that would allow for a proper assessment of this. In particular, it is not clear whether different technologies would qualify for different payment rates under any of the three options or whether the mechanisms would be technology neutral. It is also unclear how power market illiquidity will be tackled, which could have a significant influence on who wins and loses under the EMR proposals.

We would like to see a more extensive analysis of winners and losers as the EMR package is further developed so that its impacts on competition can be better understood.

Under all approaches, potentially, the market risks to vertically integrated market participants are relatively less pronounced. This is because the generation arms of these firms have access to relatively stable customer bases (in their vertically integrated structure). Therefore we would expect the off take risk for these types of generators to be lower than that for merchant generators. As such we might expect the level of support required by these generators to be lower than for other firms with different business models.

Question 10: How important do you think greater liquidity in the wholesale market is to the efficient operation of the FIT with CfD model? What reference price or index should be used?

Greater liquidity is vital because the market reference price will be 'the D in the CfD'. Illiquid markets tend to push up prices because they create risks that traded prices do not accurately reflect supply and demand fundamentals. These risks inflate the transactional costs embedded in wholesale prices, for example by creating bid/offer spreads that are wider than they would be if products could be more easily bought and sold. If the wholesale power market remains thinly traded this is likely to increase the costs to consumers of delivering a FIT with CfD model, because the market reference price used will be inflated above an efficiently derived level.

More broadly, liquid markets encourage market entry because they create contestable markets. This fosters efficiency, drives down prices and allows investment risks (such as price risk) to be properly hedged. Purely as a measure in its own regard – ignoring the four proposed EMR measures – improving the liquidity of the wholesale power market should encourage investment in new generation and could help to ease security of supply concerns without the need for government or consumer subsidy.

The choice of reference price or index is unclear at this time. It must be noted that the choice of index may in itself affect trading patterns, ie generators may choose to trade on the reference index to try and reduce differences between the traded price and the strike price on the CfD. We would have concerns if DECC believed that reference prices set according to market indices currently published by the two main power exchanges (APX and N2EX) and LEBA were adequate. All indices suffer from a lack of liquidity in the relevant OTC and exchange platforms and as such will be contaminated with excessive risk premia.

Question 11: Should the FIT be paid on availability or output?

The FIT should be paid on output, not on availability. It creates better incentives for plant maintenance and for security of supply if payment is based on output, ie because it encourages the generator to only build a unit that it expects to run, and then to sweat the asset once it is built⁴. Encouraging delivery should have a deflationary effect on market prices when compared to simply incentivising availability, because wind generation in particular has very low short run marginal costs. Creating downward pressure on market prices should help consumers by making energy more affordable.

It is questionable whether an availability-based payment is consistent with the wider objectives of the EMR. Generators will only be delivering the societal benefit that consumers are being asked to pay for through the FIT – decarbonisation – when the plant is running. If payments are made when it is available but not running then it is possible that higher carbon assets are being used in its place. This would leave consumers in the position of paying for decarbonisation without getting it.

Emissions Performance Standard

Question 12: Do you agree with the Government's assessment of the impact of an emission performance standard on the decarbonisation of the electricity sector and on security of supply risk?

We broadly agree with the assessment. In particular, we agree with the characterisation of the EPS as a backstop measure – in practical terms, we would be surprised if a significant volume of new unabated coal plant were built in the absence of this measure given the likely introduction of higher taxation on carbon emissions through the carbon price support mechanism and the strong investment signals for zero carbon that may be delivered by the FIT regime. As such, we see an EPS more as a demonstration of political commitment to decarbonising the energy sector than as the principal delivery device to enact that intent.

As with any political commitment, its value may be considerably undermined if the government shows an inclination to continuously tinker with its parameters once implemented. In this regard, we welcome the stated intent to apply this measure purely prospectively and to 'grandfather' the EPS at the point of consent of each power station, such that it would not be subject to subsequent retrospective tightening for that plant. You should seek to find ways to hard-code this commitment in the enabling legislation. This should reduce the risk to investors, with a knock-on beneficial effect of reducing the costs that they pass through to consumers. It should also reduce the risks to security of supply that consumers may face if investors will not build plant for fear of retrospective rule changes.

On a similar theme, we would like to see you introduce a firm commitment – preferably in the form of a statutory protection within the enabling legislation – that any revision to the EPS threshold can only be implemented once a specified deminimis notice period has elapsed. The purpose of this would be to specifically prevent 'knee-jerk' revisions to the threshold. If short notice revisions are not prohibited this may discourage new investments because potential investors may lack certainty on what level of emissions will be applied and 'grandfathered' by the time a proposed new generation plant gains consent (and therefore lack certainty on the viability of going ahead with the investment).

⁴ The operation of generation plants also needs to be efficiently managed in the context of the effect it has on network costs (for example, on constraint management and losses) to ensure that the total cost to consumers is minimised.

Regulatory uncertainty and thus risk cannot be hedged by markets. We would suggest that any statutory notice period for revisions to the EPS is no less than three years given the typical timescales for bringing conventional generation plants to markets.

For the avoidance of doubt, while we would support the introduction of a grandfathered EPS applied to new plant we would not support any form of retrospective EPS that (a) applied to existing plant and/or (b) was not subject to grandfathering protections. We note that many of the problems of security of supply that we face later this decade are the direct result of the retrospective introduction of emissions limits to existing plant (ie the Large Combustion Plant Directive and the Industrial Emissions Directive). Government needs to learn lessons from this experience rather than repeat the same mistakes.

Question 13: Which option do you consider most appropriate for the level of the EPS? What considerations should the Government take into account in designing derogations for projects forming part of the UK or EU demonstration programme?

We have a weak preference for Option 1. We note the implication (paragraph 85) that Option 2 *'would either effectively rule out the demonstration of CCS on new post-combustion coal power stations, as it would require more than 300MW net capacity to be abated, or require additional public expenditure to fund a larger demonstration'* but are not entirely swayed that this problem is insurmountable. This is because a separate component of Option 2 appears to be to allow for specific exemptions from the EPS for demonstration projects (ie paragraph 83).

Nonetheless, on balance we favour the simplicity of only applying an emissions threshold (ie Option 1) rather than applying both an emissions threshold and an exemption regime (ie Option 2). This is because it makes for a simpler regulatory regime that is more conducive to investor confidence (because there would not be ambiguity around whether or not an exemption would be granted) and that we assume would be cheaper to implement and administer (because DECC would not need to set up and run an exemptions regime). Both of those benefits are in consumers' interests.

Question 14: Do you agree that the EPS should be aimed at new plant, and 'grandfathered' at the point of consent? How should the Government determine the economic life of a power station for the purposes of grandfathering?

Yes, we agree that it should be aimed at new plant and grandfathered at the point of consent. Applying this measure retrospectively would be likely to accelerate the closure of existing plant. Given that your modelling forecasts generation shortfalls by the end of the decade, this would be deeply imprudent from a security of supply perspective.

More broadly, the approach you propose – applying rule changes on a purely prospective basis – is also most conducive to maintaining investor confidence. The alternative, retrospectively changing the treatment of existing assets, is generally hugely undesirable both legally and morally because it changes the consequences of decisions now past, resulting in windfall gains and losses. In this case it would have a re-distributional effect, reducing the value of coal plant assets compared to other generators. An overarching aspiration of the EMR package is to encourage generation investment in the UK; this is unlikely to be achieved if the government establishes a track record for 'moving the goalposts' on expensive investments already made.

Question 15: Do you agree that the EPS should be extended to cover existing plant in the event that they undergo significant life extensions or upgrades? How could the Government implement such an approach in practice?

We do not think that the EPS should be extended to cover existing plant in the event of significant upgrades. This is because such an approach appears open to perverse outcomes; most notably that it may actually discourage generators from improving the efficiency or reliability of their plant for fear that they would be subject to tighter regulation if they did so. It may therefore have the ironic effect of running directly opposite to the policy intent of the EMR package: reducing security of supply and discouraging generators from taking steps to reduce carbon emissions.

We note that there is the potential for conflict between the EPS and other parts of the package if it is applied retrospectively. For example, it appears entirely possible that coal plant may simultaneously be subject to strong signals to close from a retrospective EPS, and strong signals to stay open from a capacity payments mechanism. If Government subsequently determines it wants to apply the EPS retrospectively it will need to find some fairly innovative ways to manage this conflict.

Question 16: Do you agree with the proposed review of the EPS, incorporated into the progress reports required under the Energy Act 2010?

Yes, this appears sensible; it is clearly good practice to conduct post implementation review of high materiality decisions. This increases democratic accountability and allows policy makers to learn the lessons (bad and good) of past decisions.

Question 17: How should biomass be treated for the purpose of meeting the EPS? What additional considerations should the Government take into account?

Biomass has an impact on carbon emissions that is close to neutral. This should be reflected in its treatment; it would be perverse to discourage low carbon generation.

Given that biomass may be co-fired with coal you will need to find a way to allow for the EPS to be applied to plants using 'blended' fuel sources.

Question 18: Do you agree the principle of exceptions to the EPS in the event of long-term or short-term energy shortfalls?

Yes, we do. While shivering in the dark may be carbon neutral, energy shortfalls are clearly not conducive to consumer wellbeing. There must be exemptions from the EPS to cater for situations where short-term energy shortfalls are likely.

In the event of long-term shortfalls – sustained systemic failure – it would be more appropriate to scrap the policy than suspend it.

Capacity mechanisms

Question 19: Do you agree with the assessment of the pros and cons of introducing a capacity mechanism?

While we agree with much of the analysis we are struggling to understand how the favoured policy option – the introduction of a targeted capacity mechanism – substantively differs from the existing arrangements. We think that the analysis poses something of a false choice, implying that we are faced with a 'digital' choice between either introducing a capacity mechanism or not having one (and with the clear inference being that we currently do not have one).

In practice we think that the decision is actually 'analogue' – that forms of targeted capacity mechanism already exist and that refining these may be an option rather than needing to introduce something new.

The System Operator (SO), National Grid, is already under licence obligations to procure balancing and ancillary services, such as Short Term Operating Reserve, to ensure the security and quality of supply of electricity within GB, and under a regulated 'SO Incentive' scheme to ensure that it manages the costs of delivering such services efficiently.

Separately from these direct obligations on the SO, the electricity balancing and settlement arrangements are intended to provide a means to incentivise investment in peaking plant (ie flexible capacity). We thought National Grid provided a good summary of the potential to reform this regime in its evidence to the Energy and Climate Change Committee:

'Imbalance prices provide signals to market players about what the cost of their not having sufficient generation capacity is causing. At the moment, the imbalance prices on electricity are damped. They are very much an average of a range of actions that we have taken, rather than a marginal price at one extreme.'

'It is worth exploring whether a change in the imbalance arrangement would provide the right incentives on the supply market to ensure it has sufficient capacity available. In that way, you would leave the decision making on providing the right levels of capacity to the market, rather than a central focusing arrangement.'

Crucially though, we think such reform must be tied to finding and implementing a solution to the enduring illiquidity of the wholesale power market. Liquid wholesale markets are an essential companion to strengthened price signals; there is no point sending out stronger signals on market participants to forward contract if there is no mechanism through which they can do this. In the absence of liquid wholesale markets sharpened price signals may kill off what little competitive fringe exists in electricity supply. They are also a pre-requisite for other parts of the EMR package; ie for the FITs with CfD approach to work.

We think there should be a review of the effectiveness of the current balancing incentives regime and that this could best be delivered by Ofgem through the existing regulatory framework rather than by Government through new legislation.

Question 20: Do you agree with the Government's preferred policy of introducing a capacity mechanism in addition to the improvements to the current market?

As previously noted in our answer to question 19, we think review and reform of the existing balancing and settlement arrangements, tied to a structured solution to the illiquidity of the wholesale power markets, may provide a better route to ensuring capacity than the introduction of a wholly new scheme.

Question 21: What do you think the impacts of introducing a targeted capacity mechanism will be on prices in the wholesale electricity market?

A new, separate, targeted capacity mechanism would appear to give those generators able to participate in the scheme – implicitly, those who operate flexible 'peaking' plant – a discrete revenue stream rewarding this flexibility. This may reduce the scale of revenues that they need to recoup from existing energy payment mechanisms (such as the wholesale price) in order to run profitably. Assuming that such generators do not have market power, and that they are under genuine competition to keep their costs down, this may result in

them offering volumes in to the wholesale market at lower prices than they would if they needed to generate all of their revenues from the wholesale market price.

There are some risks of market power however; we note that Ofgem has repeatedly expressed concerns on this issue in the past and that the 2010 Energy Act was intended to enable the insertion of a Market Power Licence Condition in the licences of generators to prevent them exploiting any market power that may arise as a result of constrained capacity in the electricity transmission system (although it does not appear that any such licence condition has actually been implemented yet).

From a consumers' perspective, the total cost that is passed through to final retail bills is more important than the sub-components of that total. Put simply, if the materiality of capacity payments exceeded the materiality of wholesale price reductions then consumers would be worse off (and vice versa).

Question 22: Do you agree with Government's preference for the design of a capacity mechanism [based on]: (1) a central body holding the responsibility; (2) [that it is] volume based, not price based; and (3) a targeted mechanism, rather than market-wide?

Our preference is that the existing balancing and settlement arrangements are reviewed and, where necessary, strengthened but in the event that the government is determined to press ahead with a new targeted capacity mechanism we support these principles.

We agree that any capacity mechanism should be targeted rather than market wide. This is because we see the principal purpose of a capacity mechanism as being to deal with intermittency issues or plant failures. As such, the policy need is to ensure that flexible plant is available to deal with such issues. Making payments to all generators will inevitably reward inflexible plant as well as flexible plant; inflating consumer costs without providing them with any benefits for these costs.

We also agree that any mechanism should be volume based rather than price based. Setting an administered price is inherently difficult and any errors in the price that is set are likely to result in over or under procurement of necessary capacity.

Question 23: What do you think the impact of introducing a capacity mechanism would be on incentives to invest in demand-side response, storage, interconnection and energy efficiency? Will the preferred package of options allow these technologies to play more of a role?

We do not think the Government's proposals are clear enough to allow us to form a view on this matter; the impact on different technologies will vary greatly depending on the scheme design, this detail is largely missing.

We believe in the principle that demand side reductions should have equivalent access to capacity payments as supply side measures. Demand side responses include measures to reduce demand, real-time load shifting and the production of decentralised power close to the consumer, reducing the need for transmission and distribution.

Because some demand side measures are relatively small-scale, demand side aggregators will have to utilise the EMR mechanisms on behalf of the individual projects. It is important that the rules are written in a way to allow aggregators to operate without undue regulatory costs. The risks to the system posed by a programme to reduce say lighting load is quite different to the risks from a new dispatchable power plant and the regulatory system should be proportionate to avoid excessive compliance and administrative costs on small schemes.

In the US successful incorporation of demand-side measures in New England allowed substantial penetration (around 8 per cent of the auction) and reduced the costs of the capacity payment by around 15 per cent⁵. This is a huge prize that could reduce customer costs and also achieve environmental benefits. In the US demand-side actions have resulted in a reduction in the amount that needs to be invested in transmission and distribution networks⁶.

Question 24: Which of the two models of targeted capacity mechanism would you prefer to see implemented: last-resort dispatch or economic dispatch?

We would prefer to see economic dispatch. This should be more cost effective; resulting in lower costs to consumers than would be the case if this capacity was being paid to sit idle using a last-resort dispatch model.

We do not agree that a last resort dispatch model would minimise market distortion when compared to an economic dispatch model; we think it would simply result in a different kind of market distortion. A last resort dispatch model is predicated on the system operator 'hoarding' capacity, leaving it idle even in cases where it would be economic to run it – this is likely to distort the market by creating artificial scarcity; pushing up consumer prices.

Question 25: Do you think there should be a locational element to capacity pricing?

This may be justified if there are objective reasons why capacity has greater or lesser value in specific locations – for example, because transmission constraints enhance or limit the usefulness of spare flexible capacity in those areas. This might be particularly important in export constrained locations where there is expected to be increased development of intermittent generation.

We note that the existing balancing and settlement arrangements include implicit locational capacity pricing, ie that bids and offers are unique to individual Balancing Mechanism (BM) Units. The interaction between generator bid/offer pricing and SO behaviours (ie which bids and offers it chooses to accept) can send out strong locational signals on where capacity is valued.

It should be noted that locational pricing can bring risks of market power in relatively concentrated markets where only a limited number of plants may be able to respond, ie that it could result in excessive rents. We note that Ofgem has repeatedly expressed concerns on this issue in the past and that the 2010 Energy Act was intended to enable the insertion of a Market Power Licence Condition in the licences of generators to prevent them exploiting any market power that may arise as a result of constrained capacity in the electricity transmission system (although it does not appear that any such licence condition has yet been implemented). Furthermore, experience from overseas markets suggests that reforms to the transmission charging arrangements can reduce potential abuses of market power (nodal pricing for example).

⁵ Jenkins, C, Neame, C and Enterline, S 'Energy efficiency as a resource in the ISO New England forward capacity market'. <http://bit.ly/eje9HV>

⁶ For example, the Consolidated Edison Company of New York estimates that it has saved US\$221m in avoided network investment costs as a result of demand side measures. <http://bit.ly/gWJctZ>

Packages of measures

Question 26: Do you agree with the Government's preferred package of options (carbon price support, feed-in tariff (CfD or premium), emission performance standard, peak capacity tender)? Why?

No, we do not. We think a preferable alternative package would be:

- FITs with CfD (subject to the range of design conditions previously outlined, including that the strike price should be set through a market based mechanism such as auctioning and must be technology neutral)
- EPS (Option 1, subject to it being grandfathered, purely prospective and with the inclusion of statutory safeguards to prevent knee-jerk changes to the threshold)
- An instruction to Ofgem to develop a package to improve the cash out regime such that it fully prices the value of marginal (peaking) plant **and** to improve the liquidity of the wholesale power market such that market participants can actually respond to sharper imbalance signals

This package would exclude carbon price support because we consider that the FITs with CfD approach provides a much better targeted mechanism to deliver decarbonisation than carbon price support does – see Table 1 on page 5 for an outline of our reasons for holding this view. We do not think that it is necessary to implement both measures.

We are also unconvinced that a discrete, new, targeted capacity payments mechanism regime is needed. Your analysis (and that provided by Ofgem during Project Discovery) suggests that a range of incremental reforms to the existing regime may be possible. We would prefer that you exhausted options for evolution before you proceed to revolution.

Whatever you choose to implement, a solution to the problem of wholesale market illiquidity needs to be found. This is a precondition if a CfD approach is to work, as a credible market reference price will be needed to form workable strike prices. But purely as a measure in its own regard – ignoring the four proposed EMR measures – improving the liquidity of the wholesale power market should encourage investment in new generation and could help to ease security of supply concerns without the need for Government or consumer subsidy. Liquid markets would also facilitate retail market competition, creating healthy pressure on suppliers to keep their prices down.

Question 27: What are your views on the alternative package that Government has described?

We would not support the alternative package, which differs from the preferred package only insofar as a Premium FIT approach is pursued rather than a FIT with CfD approach.

As outlined elsewhere in this response, we do not believe that a Premium FIT approach is conducive to meeting carbon targets at lowest cost to consumers. In particular, we note that the analysis conducted by Redpoint suggests that a Premium approach is far less robust to varying commodity prices than either a Fixed or a CfD approach; that decarbonisation would be at risk if future gas and carbon prices are lower than those expected at the time the Premium was set and that conversely consumers would be at risk (of paying too much) if future gas and carbon prices are higher than those that were expected. The future is very uncertain and it seems deeply unwise to rely on an approach that would only work in a limited number of scenarios.

Question 28: Will the proposed package of options have wider impacts on the electricity system that have not been identified in this document, for example on electricity networks?

The package of options is likely to change the pattern of network development and operational costs in a number of ways. In many areas this is likely to simply be an amplification of existing trends, which we can use to forecast the future.

For example, the last few years have seen an increase in the amount of intermittent and remote renewable generation brought on line, significant amounts of which are in areas suffering from locational transmission constraints (for example, north of the Cheviot boundary). This has caused the costs that the SO incurs in managing constraints – and which it ultimately passes on to consumers – to more than triple in five years⁷. We would expect system operation costs to remain high, and probably increase, as assets are brought on in remote and thus more costly locations. In the medium to long term we would expect that capital investment in the transmission networks will mitigate the costs of managing emerging constraints. All additional costs, whether capital or operating, will ultimately flow through to consumer bills.

We note that Ofgem predicts that £32 billion of investment will be needed in the energy networks by 2020, a significant increase on historic levels. Although some of this would be needed anyway to replace ageing assets, a significant portion of this spend will be to facilitate connecting the low carbon investment brought forward by EMR. There is an important trade off to be made in terms of whether actively managing network congestion, or investing in transmission infrastructure to avoid this congestion arising, will be lower cost for consumers. This highlights the importance of the EMR and Ofgem's Project Transmit reaching complementary conclusions. Only if satisfactory and complementary outcomes emerge from these two work streams will consumers receive value for money.

Some of these costs may be offset if the EMR is successful in bringing forward demand side response. An increase in distributed generation, or distribution-connected demand reduction (so called 'negawatts') should reduce the scale of investment needed at transmission level. It may also increase the carbon efficiency of network investments, for example the level of transmission and distribution system losses should be reduced through increased embedded balancing of production and demand.

Question 29: How do you see the different elements of the preferred package interacting? Are these interactions different for other packages?

The carbon price support mechanisms and capacity payment mechanism proposals are somewhat in tension with each other – the former actively discourages high carbon generation, including existing assets, while the latter tries to provide stimulus for flexible (peaking) generation plant, which tend to be high carbon generation. There is a risk that some generators will be subject to simultaneous incentives to close early and to stay open longer.

⁷ National Grid is currently forecasting that it will spend between £260 million and £526 million (with a mid range forecast of £313 million) managing constraints in 2011/12. The mid range estimate represents a 372 per cent increase on the £84 million it spent on managing constraints in 2005/06. Source of data: System Operator Incentives pages on National Grid website, forecast for 2011/12 current as at 7 March 2011.

The EPS is arguably the weakest of the three decarbonisation mechanisms in the package. The FIT and carbon price floor mechanisms provide such strong incentives to invest in low carbon that we would be relatively surprised if much/any unabated coal fired generation were built even were the EPS omitted from the package. As such, we see it as an insurance policy backing up other parts of the EMR package rather than as a principal driver of change.



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From a textphone, call 18001 020 7799 7900

From a telephone, call 18002 020 7799 7900

Consumer Focus

Fleetbank House
Salisbury Square
London EC4Y 8JX

t 020 7799 7900

f 020 7799 7901

e contact@consumerfocus.org.uk

Media Team: 020 7799 8004 / 8005 / 8006

For regular updates from Consumer Focus, sign up to our monthly e-newsletter by emailing
enews@consumerfocus.org.uk