Call for Evidence on barriers to securing long-term contracts for independent renewable generation investment

Consultation by DECC

Response by E.ON

Executive Summary

We are not convinced that there is a fundamental problem with access to market for renewable generators. If there is a problem, it is one of insufficient reward available to manage market risk. We believe that the following combination of measures could allow for reduced risk for generators without further regulatory intervention:

- The introduction of CfDs, as proposed by government, which will remove the need for generators or PPA purchasers to manage long-term power price risk.
- The introduction of strong change of law (and regulation) terms within these CfDs, alleviating political and regulatory risk, particularly around the cost of balancing, from generators.
- Fully taking into account the costs of managing the remaining risks when setting CfD strike prices.

<u>EMR will help the PPA market to function</u>

- E.ON recognises that the risks for PPA providers have increased and that this may have resulted in a reduction in the number of providers willing to provide long-term PPAs at any given price.

- We believe that the introduction of CfDs will reduce the long-term risks for renewable plant with regards to the power price. Taken alone, EMR should make achieving access to market easier. Provided that the chosen Market Reference Price (MRP) is easily achievable, there is no longer a need for independent renewable generators to pay a significant premium to secure contracts which can access this price.

- Provided the MRP is a cleared price auction, it is relatively easy for a market participant to guarantee access to that auction. So long as this is combined with a decision to pay on availability when the price falls below zero (as is proposed), this allows a generator to have a high degree of confidence in achieving its overall strike price. Should an alternative mechanism (e.g. a market index) be chosen, it would be more risky and so more expensive for a market participant to provide this service.

- Government is able to reduce further the risks which generators must manage with CfDs by ensuring that the change of law provisions within CfD contracts are sufficiently strong. This would include covering the impact of all direct or indirect changes in market rules (e.g. balancing). This would significantly reduce the remaining long-term risks, so improving the ability to attract finance (either directly or through allowing PPAs at a lower price). This approach would also protect customers as the CfD strike price would only increase if the cost of imbalance were to increase as a result of change in law.

- Provided the cost of managing non-regulatory risks, such as the technological and market uncertainty around balancing cost, is taken account of in setting the strike price for CfDs, this approach should enable long-term agreements which deliver sufficient certainty around access to market to be obtained. The strike price can either be adjusted to reflect these additional costs or it can remain unchanged with a somewhat lower level of renewable investment.

PPAs with suppliers cannot be relied upon to support all renewable generation

- We are very strongly opposed to any obligation on suppliers to enter into PPAs. The highly competitive structure of the UK electricity market does not support development of a large proportion of generation assets (renewable or fossil) via long-term PPAs with suppliers. Suppliers do not have long-term certainty over their customer numbers or their customers' demand for electricity, therefore limiting the volume suppliers can buy on a long-term PPA in order to supply customers. This effect increases as competition in supply increases and there is currently regulatory pressure to further increase customer turnover. The higher the potential turnover of customers, the smaller the volume of generation any given supplier can be sure they will require; and suppliers have no certainty at all regarding future customer price levels. Accordingly, if much of the anticipated renewable build is to be supported by long-term PPAs, some of these PPAs cannot be with suppliers.

- We do not believe that supply businesses (taken together) are sufficiently large to provide PPAs covering all risks for the full 28GW of wind power required to meet the UK's 2020 renewables target (against a GB average demand of around 36GW and a minimum demand of around 20GW[1]).

- Forcing suppliers to enter into PPAs would lead to a number of negative financial impacts:

    - Such PPAs must usually treated as leases from a financial perspective (a differentiation between operational and finance lease is not necessary as the

[1] Source: National Grid Seven Year Statement

results are the same). Leases qualify as debt and therefore increase the financial indebtedness of the off-takers, so limiting their financial headroom. Imposing an obligation to enter into a PPA curtails a business's freedom to choose where to take on indebtedness and thus impacts the overall strategy of the business.

- Credit rating agencies have so far considered PPAs as a strategy to avoid investing directly into generation assets. As such, when considering ratings they have adjusted the balance sheet of the off-taker by adding both the asset and the debt. Additionally, a legal obligation to enter into such PPAs might have a negative impact on the business risk as perceived by ratings agencies. We consider that both aspects, the increased financial indebtedness and the potential adjusted business risk, are not acceptable to the UK suppliers and, where applicable, their parent companies. The greater the obligation to provide PPAs, the higher the risk of a substantial impact on the credit worthiness of suppliers.

- Were an obligation to be introduced which was in a form other than an off-take of physical power, it would lead to additional regulation requirements under European Market Infrastructure Regulation (EMIR) and Markets in Financial Instruments Directive (MiFID).

- Were suppliers to be required to offer PPAs in this way, the additional risks involved could eventually lead to suppliers losing the high credit ratings which make them suitable as PPA providers on a voluntary basis. The additional risks they would incur from entering into large volumes of PPAs would also be reflected in higher prices to customers, which would increase the cost to the UK economy of supporting renewable investment.

- It is inappropriate to oblige any company to underwrite contracts that change the nature of that company's underlying business. Under the RO, suppliers can choose to contract for ROCs on terms that they find acceptable, be they long- or short-term, or to pay a buy-out. Any obligation that forced a company to conclude a PPA in circumstances where they would not normally do so would interfere with the ability of owners to operate their businesses in a commercial manner. Furthermore, any obligation that falls on only a segment of the supply market would be likely to be discriminatory within Article 3 of the Electricity Third Package Directive[2] as well as under the general common law duty of fairness/EU non-discrimination duty. In addition, any such obligation that was only applicable to a certain category of generators ("independent renewable generators") and only incumbent upon a certain group of suppliers ("obligation on large

[2] Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC

suppliers") would be likely significantly to distort competition by favouring certain undertakings and therefore could also to raise State Aid concerns.

- Additionally, socialisation via a direct obligation on supply companies to purchase PPAs is not a workable solution for renewable generators. As discussed above, suppliers have no assurance that their customer base will be sufficiently large over the life of the contracts to be able to accept the required volume of generation. In addition, there is the question of the required contract duration:
    - To support new renewable development, PPAs would need to be over a decade in duration to cover both construction and operation periods.
    - So, some supply companies would have to sign contracts for a much greater proportion of total generation than their market share could be by the end of the contract.
    - This position is not likely to be acceptable to the funders of renewable development, as companies with reduced size might not be creditworthy counterparties for a large, long-term PPA.

<u>If intervention is desired, socialisation is the only effective option</u>

- A cornerstone of liberalised energy markets is that any party not performing as it had previously indicated is exposed to the costs of that non-performance. Without revising the whole market set-up and principles, no action should be taken to interfere with this. Any action taken to protect intermittent generators from these costs will simply appear as higher cost and risk to customers.
- On this basis, should government decide to intervene, the only effective option we have identified is socialisation of the risk around costs which renewable generators incur. To work within the EMR framework of not disrupting the core mechanisms of the bilateral market, any socialisation would need to preserve the incentive to sell power through the wholesale electricity market (presumably at the MRP). Socialisation could not, in practice, be through a buyer of last resort as to be effective such a buyer would need to offer prices not available in the broader market; it would therefore be likely to become the preferred buyer for all renewable electricity.
- Volume and imbalance are risks present for all renewable generators, not just independent ones and all would see a benefit from any socialisation. As such, should a socialised solution be offered it would need to be available to all renewable generators (to ensure compliance with the non-discrimination provisions of the EU Electricity Directive and to assist compliance with State Aid rules). Socialisation of risks would therefore be likely to be taken up by all renewable plant.

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Introduction

Any company building electricity generation assets needs to be capable of dealing with the consequences of running those assets and should make arrangements to manage both the risks and the need for market access. This is a fundamental principle of deregulated energy markets. As part of their development, generators need to ensure that they are capable of making deliveries to the market and settling imbalances in the same way as they undertake to carry out maintenance. If these generators are not willing to undertake these actions or make arrangements to deal with them (i.e. by selling all of their output via a PPA), they need to pay the market price associated with passing these costs on to others.

Signing any long-term contract (or set of similar long-term contracts) will involve a significant transfer of risk (relative to the size of a counterparty) and will impact on the credit worthiness of that counterparty. From a credit worthiness perspective, this will generally be beneficial to the party transferring the risk and detrimental to the party taking the risk. In the case of a PPA, the credit worthiness of the off-taker will be negatively impacted due to the fact that credit ratings agencies will normally adjust the supplier's balance sheet by increasing the supplier's debt position in order to reflect the existence of a lease. As PPAs are usually the backbone of any debt financing for the generator, the payment obligations on the off-taker are generally structured in such a way that debt can be obtained solely on the basis of this payment flow. This structure leads to an adjustment by ratings agencies of the debt position of the off-taker by simply adding these payment obligations. This results in reduced financial headroom for the off-taker, limiting its ability to conduct other business.

All participants in the UK PPA market, either as generators selling or providers buying, are exposed to international credit markets, either directly as international companies or indirectly in attracting funding. For a generator, the consequence is obvious: if it is to rely on a PPA, it must be able to sell that PPA at a sufficiently high price to attract finance, given the level of subsidy available. For a PPA provider, there is a similar consideration: it will only sign a PPA if the profit it expects to make from doing so is higher than that available from alternate investments (in the UK or abroad) with the same impact on its credit profile; to do anything else would be a failure to respect the fiduciary duty of the board to its shareholders.

In practice, these considerations mean that the greater the level of risk which must be transferred (from generator to PPA provider), the more attractive it is to the generator and the less to the PPA provider. Accordingly, if risk increases then the price which must be paid to secure a PPA (e.g. a discount on the power price) must rise in order to balance these interests. If the profitability of wind investments is not high enough for a generator to both find a provider for a PPA and attract funding, then to achieve build either the subsidy must increase or the risk decrease.

In our view, the market has already demonstrated its ability and willingness to offer products to generators requiring market access and services designed to manage imbalance risk. Policy making should not be directed at imposing solutions that could have unintended consequences on the market, and instead should be aimed at widening the number of participants who are able to provide these solutions to generators. Measures which reduce risk to generators which are subsequently passed onto PPA providers can be explored further, but these should not be at the expense of operating a more efficient market.

The role of suppliers as PPA providers

In electricity markets structured in the fashion of the UK's, where customers are free to switch supplier at short notice, there is a limited market for buyers of electricity on long-term PPAs. For a supply company, the proportion of its customer base which it can rely on continuing to serve decreases as it looks forward in time. As such, even if price risk is removed via indexation, there is only a limited volume of power which a supplier can buy via long-term PPAs for its own customers, particularly as the volume certainty is not accompanied by the certainty of being able to recover any costs associated with long term purchases. The size of this volume will vary with an individual supplier's confidence about its future size and the future structure of the market (which will in turn be impacted by the extent of competition in the supply market and the degree of regulatory change). Whilst it is not possible to say exactly how much suppliers will feel able to purchase via PPAs for their own customers' consumption, it is highly unlikely to be enough to supply their entire current demand. Hence, to meet targets which imply around 28GW of wind generation against a current average demand of 36GW it is likely that some other form of access to market must be relied upon. This leaves two options: (1) seek PPAs provided by those aiming to profit solely by managing the risks involved (and who may also be suppliers or generators), or (2) manage risks in another fashion. As we describe in answer to the specific question below, we believe that EMR will aid in managing risks differently.

Considering suppliers as potential PPA providers, it is not clear that the imbalance exposure resulting from the 28GW of wind required by 2020 to meet the UK's obligations under the EU Renewables Directive could be effectively managed by supply businesses. Whilst the market already provides services for managing imbalance exposure to independent generators, we would expect credit rating agencies to view this exposure negatively should it become large relative to a suppliers' profitability. This will ultimately limit the ability of suppliers to provide PPAs.

According to the National Grid's seven year statement, average demand in 2010/11 was of the order of 36GW[3]. Little demand growth is expected until electrification becomes widespread in the 2020s. Managing supply portfolios under such circumstances with an obligation also to manage a peak wind output of 28GW will be virtually impossible, turning individual suppliers

[3] Source: National Grid Seven Year Statement

into net sellers in some periods. This nullifies any expectation that government or independent generators have of suppliers having an offsetting portfolio with which to manage this risk.

Supply businesses cannot be expected to carry an obligation to purchase for long periods of time when their income and market share are not fixed for more than a couple of years; indeed Ofgem considers high market churn to be beneficial to the market's wellbeing and is implementing measures through its Retail Market Reform specifically aimed at encouraging end user engagement. DECC is also supportive of such measures, as seen by its support for collective switching programmes and its intention to encourage new entry by relieving suppliers with less than 250,000 customers of obligations under ECO.

If supply companies were to take on significant new risks through long-term contracts with low profit margins, in order to maintain their profitability they would have to increase margins elsewhere. This is likely to result in an increase in customer prices reflecting the increased costs involved in being a supplier. If such a price increase was not possible (e.g. because of regulation), the overall business risk of the supplier will be negatively impacted, with consequences on the credit worthiness and ultimately credit rating (as described above). Any impact on the credit worthiness of a supply company would make it less attractive to a generator as a PPA counterparty, thus reducing the benefit to a generator of any such contract.

As a consequence, we do not believe a regulatory imposed solution that required supply businesses to purchase PPAs would work for either generators or suppliers themselves. This could fundamentally undermine the financial health of the supply businesses, raising prices to customers, and we would strongly oppose any such action.

If, despite these issues, some form of obligation to provide PPAs to generators was introduced, it would be important that it only involved the off-take of physical power. Any other form of trading would lead to regulation requirements under the European Market Infrastructure Regulation (EMIR) and Markets in Financial Instruments Directive (MiFID).

Alternative obligations on unregulated businesses

On prior occasions when obligations have been too large for supply businesses to carry, Government has instead targeted generation assets. However, (aside from being undesirable) we do not believe that this is a workable solution in this case. Most existing generation assets were built at or before the turn of the century and as such their residual value is likely to be small by 2025 (given an industry standard life of circa 25 years). Whilst many of these assets may still be operating at a lower load factor by around 2025, they will not necessarily have sufficient value against which to secure a long-term PPA as would be necessary to meet the 2020 renewable targets. It might be possible in theory to target new generation assets, but this would act as a significant disincentive to invest in the UK generation market (renewable and fossil) and significantly increase the total cost of the electricity system for customers.

The consultation document also states that ownership of thermal generation assets could help reduce total balancing risk, enabling an operator to take on greater risk through PPAs. This is true in most cases today (provided thermal generators are compensated appropriately). However, it is unclear: (a) exactly what assets will be the most economic way to provide balancing by 2020, given the expected change in the market for balancing and the potential emergence of new generation, demand side and storage solutions; and (b) the extent to which the balancing rules will continue to allow a generation asset owner to self balance and see this benefit. Overall, this means that whilst owning fossil generation assets is likely to reduce overall balancing costs, there are limits on the extent to which this can be relied on when signing a long-term PPA.

Achieving the reference price

In order to be certain of achieving the Market Reference Price (MRP) of the CfD, the volume associated with the contract will need to be sold through an auction where the clearing price is the MRP. This will ensure that all parties to the auction can be certain of the price.

For any volume transacted with a MRP set against some published index, be it an exchange settlement price or not, one or other of the parties to the contract will be at risk of not actually achieving the MRP. Therefore, for any PPA provider to minimise its costs of providing the PPA, all CfD contracts should be structured with a day-ahead auction based reference price.

Our preferred solutions

As we have stated above, we are not convinced that there is a fundamental problem with access to market for renewable generators. We believe that the following combination of measures could allow for reduced risk for generators without further regulatory intervention:

- The introduction of CfDs, as proposed by government, which will remove the need for generators or PPA purchasers to manage long-term power price risk.
- The introduction of strong change of law (and regulation) terms within these CfDs, alleviating political and regulatory risk, particularly around the cost of balancing, from generators.
- Fully taking into account the costs of managing the remaining risks when setting CfD strike prices.

We recognise that government may be minded to make some form of intervention beyond this. If government feels this is necessary, we believe the only appropriate intervention would be the introduction of some form of socialisation of the risks around costs to renewable generators. Any alternative to socialisation would still need to provide sufficient reward for the management of market risks, in particular around balancing; such risks can only be removed from the market if they are taken on by the government or by customers.