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8th May 2012

Dear Camilla;

Retail Market Review: Intervention to enhance liquidity in the GB power market

We set out below RWE's response to the Consultation on the proposed Intervention to enhance liquidity in the GB power market. This response is provided on behalf of the RWE group of companies, including RWE Npower plc, RWE Supply & Trading GmbH and RWE Npower Renewables Limited.

We welcome the opportunity to comment on this consultation.

On 22 Feb 2012, Ofgem published some initial conclusions from the liquidity element of the retail market review, together with a proposal for a licence modification. This modification envisages an obligation on a subset of generation companies to operate a mandatory auction (MA) for a selection of forward and peakload products.

Although we share the objective of increased electricity market liquidity, we are disappointed with this initial outcome and the proposed intervention. We do not believe it will yield any improvement in liquidity or in the functioning of the retail market. Meanwhile the obligations will lead to higher bills for consumers since the MA will add costs to the generators affected which we estimate to be approximately £100m/annum[1] and this is likely to be eventually reflected in wholesale market prices. We find it difficult to see how the proposals meet with Ofgem's statutory duties.

As far as the proposed MA itself is concerned, we believe Ofgem's proposed intervention is based on evidence that is partial, analysis that is severely limited and a wholly inadequate and flawed impact assessment. An obligation which dictates when and to whom competing generators can sell their output simply has no place in an effectively competitive wholesale market nor in Europe's most competitive retail market. Not only will Ofgem's proposed Mandatory Auction damage and not improve wholesale market liquidity, in discriminating clearly between market participants, it will severely restrict, distort and prevent the future evolution of competition in the UK electricity market.

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[1] See appendix 2 for detail

The proposed intervention in the form of a Mandatory Auction would have significant financial consequences for the obligated companies, the rest of the GB wholesale market and for customers. Our analysis indicates that there is the potential for significant increases in costs for customers as a result of intervention and a risk that non-obligated parties may have increased market power. The intervention clearly discriminates against the obligated parties without objective criteria for doing so and is also likely to discriminate between the six obligated parties themselves given their different portfolios. The proposal will clearly restrict and distort competition and consequently does not better meet Ofgem's statutory duties to protect consumers and to promote competition.

We note that Ofgem state that *"It [the MA] is unlikely to have any serious negative impacts on liquidity in the OTC market*"[2], that "*the MA has the potential to have positive impacts on the OTC market*"[3] and that it is concluded that "*initial analysis suggests that if the volume level is set at 25 per cent, the costs of the MA would not be disproportionate to the benefits*"[4]. We do not see any evidence in the consultation document that supports these statements and we would ask that if Ofgem has any such evidence then they should publish it.

Furthermore Ofgem note that the proposed Mandatory Auction "*does impose costs*"[5] on market participants, including transaction costs. We have evaluated these costs on the obligated parties on the following basis.[6]

- Inability to Hedge to Stakeholder requirements
- Lack of peak hedging
- Increased transaction costs
- Lack of market participants on the buy side
- Gas/coal market liquidity
- Increased collateral costs
- Carbon tax exposure
- Set up and ongoing costs

However, Ofgem conclude that they have identified a "*proportionate volume*" (the 25% obligation to sell) and are allowing "*reasonable*" buy and sell participation by the obligated companies. Based on the information in the document, it is impossible for consultees to validate of these statements. We do not accept therefore that Ofgem have established a sound basis in the consultation document for concluding that intervention in the form of the discriminatory obligations on particular individual companies are required.

Ofgem's own definition of 'liquidity' is not clearly defined.

"the ability to quickly buy or sell a desired commodity or financial instrument without causing a significant change in its price and without incurring significant transaction costs." And also notes that "a key feature of a liquid market is that it has a large number of buyers and sellers willing to transact at all times".

Ofgem has failed to define what it means by a "significant change in price" or "significant transaction costs", or a "large number of buyers and sellers".

Ofgem focus on the churn in the electricity market falling from 6-7 in 2003 to 3-4 today. Whilst we would always welcome more liquidity, these are still reasonable levels and should be considered along with the

[2] Liquidity Consultation, para 3.30, page 23
[3] Liquidity Consultation, para 3.31, page 23
[4] Liquidity Consultation, Box 1, page 30
[5] Liquidity Consultation, para 3.28, page 23
[6] Annex 2

liquidity in the gas market, as gas trades provide a close substitute for power markets and are used by many market players as such. The aggregate churn in both markets is 12-14 and on this basis, the performance of the GB energy market is relatively good.

Ofgem compares liquidity in the GB market with that in other markets but fails to take into account the specific conditions in the relevant market. Even if Ofgem measured liquidity against an objective standard, this would not justify regulatory intervention.

Ofgem suggest that low liquidity is a barrier to entry without providing any supporting evidence that this is the case. Instead they focus on small suppliers not being able to enter the market when any test should assess whether the market structure supports entry by vertically integrated players, not just by small independents.

Indeed there are a number of measures which suggest that the GB retail market is more efficient than all comparable European markets;

- Electricity prices faced by residential consumers in GB are close to or below the prices prevailing in comparable European markets
- Margins have been consistently low over the medium term
- Switching rates are higher than in other European power markets

Ofgem has not shown that the obligated parties have market power. Ofgem quote the six obligated parties market share as one, as if they were one player, or a cartel, this is clearly not the case. Any competition authority applying best practice would use the recognised standards to assess the competitiveness of a market;

- Individual market shares of players
- Three-firm concentration ratio measure
- Hirschman-Herfindahl Index (HHI)

All three of these structural indicators suggest that the GB power market is competitive.

The economic arguments for intervention have not been made and indeed the Ofgem rationale does not stack up to close scrutiny. We do not believe that long term liquidity is the problem that Ofgem believe it is, that low liquidity itself is a significant issue, that the intervention should be targeted on the obligated parties (who it seems in aggregate have large market share rather than market power) and that the intervention will improve the opportunity for hedging by new entrants in the GB market.

A Mandatory Auction would also result in a number of unintended consequences; it would divert liquidity, unravel market initiatives to introduce financial products along the curve and undermine robust market signals. The resulting increase in market spreads and transaction costs are likely to dwarf the direct costs of the intervention. The result would be less, not more, liquidity in those products required by market participants that have evolved through natural supply and demand. This, alongside increased fears of further regulatory risks would deter, not promote, new entry in the UK electricity wholesale and retail supply market.

The draft licence conditions as written would almost certainly mean that an obligated party would be in breach of its licence following the first auction because of the mandatory requirement to sell when combined with the buy side restrictions.

We would conclude by reminding you that, despite its many detractors and the constant negative headlines, the GB market remains the best functioning electricity market in the European Union (if not the world) in terms of active retail competition.

In Annex 1 we answer the questions posed in the consultation document and in Annex 2 we set out our analysis of the cost impact of the proposals.

Yours sincerely,

Alan McAdam
Wholesale Economic Regulation Manager

Annex 1: Answers to Questions

CHAPTER: One

Question 1: Do you agree with the objectives we have identified?

Ofgem's objectives for the intervention as stated in the Consultation Document are:

- to ensure "*provision of products which support hedging*" (Objective 1);
- "*the development of robust reference prices along the curve*" (Objective 2); and
- the "*development of an effective near term market*" (Objective 3)[7].

We would agree that these statements are appropriate to the operation of any commodity market. Indeed the depth of the market will be supported by a range of products, with robust reference prices and an effective near term market. We believe that the current electricity market either delivers or have the capability to delver on all of these objectives without any need for market intervention.

We also believe that the Mandatory Auction will undermine these objectives. We are particularly concerned that the intervention will have a significant detrimental impact on both the existing physical OTC market and the development of the financial derivatives by diverting liquidity into the Mandatory Auction, into products that are not required by market-driven (natural) demand and supply, and that it will force inefficient hedging practices (with associated impacts on financing costs). In addition the intervention will reduce the overall potential for competition by precluding, distorting and crowding out innovation in the market to develop new products.

We also note that notwithstanding Ofgem's concerns, the current electricity market actually does offer a range of products (base and peak) that support hedging and that these are available over the counter, through brokers and through power exchanges. In addition, the gas market is strongly correlated with the electricity market and offers an alterative source of energy market liquidity.

Furthermore, electricity market depth will be enhanced by the implementation of gross bidding which will support the development of robust reference prices and the adoption of financial derivatives.

Question 2: Do you think there are other objectives we should be considering?

In the context of the Retail Market Review, it would appear as though Ofgem's overriding objective is to ensure that entry into the electricity supply business is facilitated. There are a number of statements in the Consultation Document that lead to this conclusion. For example:

- "*the tools and signals which independent participants need to manage risk are still not fully available*[8]; and
- "*we continue to be concerned that the market is not providing sufficient access to the range of traded products required by independents*"

We believe that if Ofgem's underlying objective is to enhance entry in supply by removing barriers to entry then this objective should be clearly stated in the consultation document. The liquidity intervention should therefore be evaluated against this objective. In this context, Ofgem has failed to assess properly the current degree of competition in retail and wholesale markets, which is already by far the most competitive in Europe and that, while more wholesale liquidity is always welcome, the UK electricity

[7] Liquidity Consultation, Chapter Summary, Page 4
[8] Liquidity Consultation, Overview Page i

market is also very competitive and one of the most liquid in Europe (after Nordpool and Germany). Other factors are also relevant such as low profit margins and the extent of regulatory risk.

Ofgem, however, has failed to articulate how and whether the Mandatory Auction will actually deliver enhanced competition in electricity supply and has failed to assess adequately the nature and extent of the barriers to entry in the retail and wholesale markets. Specifically Ofgem has failed to demonstrate that liquidity is a major barrier to entry in the retail market when compared to the wider structural and financial issues associated with operating in the GB electricity market, the credit terms required in volatile commodity markets and the myriad of obligations imposed on suppliers.

Our view of the proposals is that a Mandatory Auction as proposed would not deliver enhanced market entry in electricity supply but would simply result in wholesale market distortions with the potential to create additional costs for customers through inefficient hedging strategies that would for forced on certain market participants. In turn, this would raise, not reduce, barriers to new participation in the UK wholesale and retail markets.

Question 3: Do you agree with our views on market developments since summer 2011?

We agree that recent developments in the electricity market since summer 2011 have improved the operation of the near term market. We also believe that the development of financial derivatives will help improve the availability of products to support hedging based on a robust reference prices. However we do not accept that Objective one and two "*are not being met at present*"[9] and we do not believe that there is any empirical evidence that supports the conclusion that the "*rationale for focussed intervention targeted on these objectives remain strong*"[10].

Ofgem state that "*since July 2010 we have been monitoring the development of the market using a framework of 11 metrics which fall into three categories: high volumes in standard products; the availability of key longer dated products and/or financial derivative; meeting independent suppliers' and other' wholesale requirements*"[11]. Ofgem indicate that analysis has been undertaken to justify the potential intervention. There are a number of statements in the consultation document that allude to this analysis. These include the following examples:

- "*It [the MA] is unlikely to have any serious negative impacts on liquidity in the OTC market*"[12]
- "*We believe that the MA has the potential to have positive impacts on the OTC market*"[13]
- "*We have conducted analysis to better understand independent's trading needs and to identify gaps in the current wholesale market*" [14]; and
- "*Our initial analysis suggests that if the volume level is set at 25 per cent, the costs of the MA would not be disproportionate to the benefits*"[15].

There is no evidence presented in the Consultation Document that support these assertions or that enables consultees to determine the strength of the arguments. Moreover, Ofgem has failed to address the prima facie case that the intervention will indeed distort the market. By its very definition, the intervention will require market participants to trade different products, over different platforms and at different times to those already established within the current market. In justifying the intervention, therefore, Ofgem would crucially need to demonstrate that the distortions that the interventions introduce

[9] Liquidity Consultation, Para 2.29, page 14
[10] Liquidity Consultation, Para 2.29, page 14
[11] Liquidity Consultation para 1.10, page 6
[12] Liquidity Consultation, para 3.30, page 23
[13] Liquidity Consultation, para 3.31, page 23
[14] Liquidity Consultation, para 4.14, page 27
[15] Liquidity Consultation, Box 1, page 30

are offset by benefits elsewhere in the market. Ofgem has not provided the evidence or reasoning to support this being the case.

Furthermore Ofgem state that the proposed Mandatory Auction "*does impose costs*"[16] on market participants, including transaction costs. However, Ofgem conclude that they have identified a "*proportionate volume*" and are allowing "*reasonable*" buy and sell participation. Based on the information in the document, it is impossible for consultees including the obligated parties to check the veracity of these statements and the conclusions reached by Ofgem. Indeed our analysis indicates that the costs for the obligated parties of a Mandatory Auction could have a material impact on consumer costs.

The consultation document also fails to specify how the proposed Mandatory Auction would work in practice. Consequently, it is difficult to understand the information presented by Ofgem. For example, it is unclear as to whether the obligated parties are supposed to "sell" all the volume in the first annual auction in relation to the volume obligation, with subsequent auctions enabling the obligated parties to buy back or sell certain excess volumes. The lack of information on the operation of the auction suggests that Ofgem's analysis and associated assumptions may be flawed.

Given the fact that Ofgem thinks the normal profile for a hedge path is 18 months, based on its retail margin analysis, it is unclear why it wishes to impose a hedge path of 36 months on the obligated parties. .

Given the lack of evidence and analysis presented in the Consultation Document we do not agree that market developments since summer 2011 support the conclusion that further intervention is required. On the contrary, we see the positive increase in volumes in the day-ahead auction and the development of financial products on the N2EX having had a beneficial impact on the market. At the same time other developments associated with the financial crisis, tightening of credit conditions and the "carbon floor" have all had a demonstrably negative impact on the GB wholesale electricity market in the near term. In assessing liquidity, Ofgem must therefore consider all of the market factors that are currently in play and provide coherent and substantive analysis of the impact on these on the electricity market. In this context we would note that the proposed electricity market reforms – including the capacity mechanism - significantly increase the perceived regulatory risk in the UK wholesale market which may over shadow any market-based liquidity initiatives or regulatory interventions in the wholesale market.

Question 4: What specific further developments would be necessary to meet our objectives?

No specific further developments, over and above those already in play via the initiatives on N2EX, are required to meet the objectives stated in the Consultation Document[17]. We do not support the introduction of a Mandatory Auction.

Question 5: Do you agree that objectives one and two are current priorities given market developments?

Objectives one and two are not currently priorities given recent developments in the wholesale electricity market. Several different initiatives are now having an impact on the operation of the GB electricity market including the carbon floor. All affect market liquidity and while Ofgem must consider the impact of these initiatives when assessing liquidity, we do not see any evidence that Ofgem has done so.

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[16] Liquidity Consultation, para 3.28, page 23

[17] to ensure "*provision of products which support hedging*" (Objective 1); "*the development of robust reference prices along the curve*" (Objective 2); and the "*development of an effective near term market*" (Objective 3)[17], Liquidity Consultation, Chapter Summary, Page 4

The prospective review of electricity cash out and the potential introduction of a capacity mechanism in the "short term", possibly in 2014 impact on the efficient operation of the electricity market. Further developments such as the introduction of the European Target Model, REMIT and the European Network Codes create a further degree of uncertainty. Outside of the electricity sector, wider financial market reforms stemming from the financial crisis, could see the extension of financial market rules to physical market participants, products and platforms that have hitherto fallen outside of the scope of banking regulation. Each of these regulatory initiatives is substantive in their own right and has the potential to create substantial barriers to entry into the electricity supply business. Collectively they add up to a significant degree of regulatory risk for all market participants.

The market has responded positively to Ofgem concerns about wholesale market liquidity by sponsoring the development of a new power exchange and the development of new innovative financial products in an attempt to address the limitations associated with the physical GTMA based trading arrangements. These initiatives require the operation of a stable market and will require time to fully develop. They can themselves deliver the benefits that Ofgem seek with respect to the stated objectives in the consultation document and it is expected that these arrangements will evolve into a standard and efficient approach towards wholesale trading in the UK and Europe. Unfortunately, Ofgem appears likely to foreclose the benefits of these initiatives by the proposed intervention rather than via measures and support to foster and accelerate the delivery of the benefits. Before intervening, Ofgem should assess the industry initiatives and their effectiveness in promoting liquidity and in removing barriers to entry. Ofgem has not provided any evidence of having undertaken such analysis.

CHAPTER: Three

Question 6: Do you agree that the MA is the appropriate mechanism to meet our immediate objectives?

We do not believe that the MA is the appropriate mechanism to meet Ofgem's immediate objectives. Indeed we are concerned that the introduction of a MA will divert liquidity away from existing platforms, has the potential to increase costs for customers as obligated parties will be forced to adopt inefficient trading practices and may create further barriers to entry. As a result the intervention will fail to ensure additional products that will *support hedging*" by diverting activity away from innovation in financial products (Objective 1) and has the potential to undermine the development of robust reference prices (Objective 2) by diverting liquidity from existing platforms.

We believe that the potential intervention should be assessed in relation to its potential impact on the current electricity market arrangements. There is no evidence in the Consultation Document that the intervention will improve liquidity in the GB electricity market.

Question 7: Do you agree that, at the present time, the other mechanisms identified would not be appropriate for Ofgem to pursue?

We do not believe that it is appropriate to consider any form of intervention or other mechanisms to achieve Ofgem's objectives. Current industry initiatives via the N2EX day-ahead auction and associated financial derivative market are sufficient and should be allowed the time to come to fruition rather than being foreclosed by Ofgem's proposed intervention.

CHAPTER: Four

Question 8: Do you agree with the key features of the MA we set out?

Based on the information in the Consultation Document, the key features of the Mandatory Auction would appear to comprise the following: (extract from Ofgem consultation document)

Nature of the Obligation

- An obligation on parties to sell (rather than make available) a defined proportion of their generation in accordance with the guidelines of the auction;
- Certain products must be sold in minimum volumes each month on a certain platform or platforms (dependent on delivery model) and in accordance with detailed rules;
- In total over the course of a year, the minimum volume sold in these products would amount to 25% of the obligated parties generated output (stated as equivalent to 50TWh: more than 40% of household electricity demand); and
- The mandatory auction should be sufficiently flexible to extend the focus to support near term products if market developments were deemed insufficient (to meet objective 3).

Participation

- The obligation would apply to the six large vertically integrated electricity companies in the GB market.

Products

- Each month, the mandatory auction intervention ensures that a range of key hedging products are sold;
- Reflecting feedback from stakeholders, the products would be physical rather than financial; and
- The products would be available in small clip sizes;

Volume

- In view of the objectives the Mandatory Auction volume for any given year should be the sum total of 25% of each of the obligated parties generated annual output
- This would be sold in defined products each month
- If the market were to develop to meet our objectives, we would be able to revise the obligated volume level downward accordingly

Calculation

- An obligated party's annual obligation is calculated ex ante in GWh using data that captures the volume of energy they and their affiliates produced in the previous year;
- Production energy account data is used, aggregated over the course of the year for each party and its affiliates;
- This would include output from generation plant which is not owned by the Obligated Party but which is reallocated to the production account to the party or their affiliates due to a tolling agreement; and
- An annual information request is completed in which obligated parties notify us of the product (sic) energy accounts which are to be included in the calculation of its obligation
- ***Frequency***
- A monthly frequency is appropriate for the auctioning of longer-dated products

Governance and Safeguards

- Ofgem do not need to play a role in regulating reserve prices
- We would require compliance with buy-side rules designed to make sure that (i) obligated parties are unable to foreclose the auction and as a result (ii) the auction delivers prices which reflect market supply and demand;

Buy Side rules

- If obligated parties participate on the buy side they must (1) offer to buy more or less than the volume they are selling (e.g. at a minimum 20% more or less); thereby making sure there is an amount in the auction which they are not matching with their own buy or sell volume and (2) offer to buy or sell this unmatched amount at the same price as the bid/offered for the obligated product. (It is unclear what this means in practice).

Our comments on the key elements are as follows:

Nature of the Obligation: The obligation to sell rather than make available products is harmful for the obligated parties, will result in the potential for the obligated parties to become distressed sellers, introduces a significant distortion to the GB wholesale electricity market and may create market power amongst non obligated parties. We note the draft licence conditions and find it difficult at this stage to understand how we could accept an obligation to sell a specified volume in an auction, until we see the detailed rules of the auction so that we can make a full evaluation of the risks.

Participation: The obligation on the obligated parties is discriminatory and distorts the GB electricity market. We are particularly concerned that the intervention will inadvertently create market power for other market participants, particularly where parties are required to obtain peak products from the market place in order to sell in the auction. Ofgem have failed to set out clear and objective criteria for selecting the obligated parties in terms of their generation and retail volumes and the links between those businesses. These rules are essential to avoid a discriminatory impact of the obligation and to cater for future potential changes in industry structure. It is also necessary to understand why it is not discriminatory for other equally large generators (some with even more shape than many of the obligated parties) with equity participations in significant supply businesses to be excluded from the proposed mandatory auctions.

Products: The selection of the products for sale, as indicated in the consultation document appears arbitrary and does not relate to current hedging practices. There also appears to be no connection whatsoever between the products envisaged and the revealed, actual preferences of existing small suppliers, market intermediaries and potential entrants. (Indeed, neither Ofgem nor those parties have specified what it is precisely they think the market is not actually providing). One advantage of the current OTC market is that a broker will quote any product requested. If there is a supply and demand for it then it will trade.

The effect of the product restrictions on other market activities such as financial derivatives has not been considered. In addition, it is not altogether clear what happens if the obligated parties are unable to sell products in initial auction rounds. For example, we would expect that unsold volumes would roll over into other monthly auctions, though the obligation to sell in the auction would appear to preclude this. It is not clear how products will be allocated across the obligated parties, given their different generation shapes, volumes and fuel types without discriminating between them.

Volume: The sell volume obligation cannot be justified in terms of generation market share. We note that there are other players with significant market share that will not be subject to the obligation. The intervention therefore has the potential to distort the market and create market power for those parties not subject to the obligation. Basing the volumes on past generation will also distort competition between the obligated parties as changes in fuel prices will have a discriminatory and unstable impact on each of the parties from year to year depending on their plant mix. We also note that Ofgem are considering the use of data from a "production account". We note that for certain parties there are several production accounts and we are unclear as to how the obligation will be set with respect to parties with more than one active production account. We assume that the buy side obligation will be set in relation to the designated production account, though it is not altogether clear as to how the restriction will be established.

Calculation: We do not believe that the specified level of output (25%) and buy side restriction (+/-20%) in a "Mandatory Auction" has been justified in the consultation. We are concerned that these levels are essentially arbitrary.

Frequency: Although the consultation documents indicates a monthly auction process, we are unclear what would be sold in each auction in relation to different obligation periods. Further thought is required on this matter.

Governance and Safeguards: We believe that it is important that robust and transparent industry rules are created for the administration of the obligation. While we are concerned about the potential role of Ofgem in the auction process an industry governance process would be equally inappropriate for an obligation on individual commercial enterprises. While, at the same time, it would make little or no sense to develop six or more new auction vehicles, there would appear to be serious competition problems with an obligation on six or more competing enterprises to work together on a mechanism to jointly market their output or indeed in giving those companies outside the obligation a role in the governance of an obligation imposed on their competitors.

Buy Side Rules: We believe that the buy side rules create an additional element of risk for the Obligated Parties and that the impact of this on the GB wholesale electricity market should be properly assessed. These rules have the potential to distort the prices coming out of the auction which will not be market prices – based on regularly traded products – but merely auction price outturns. Ofgem have not provided any evidence to support the buy side restriction and we are concerned that the restriction will simply create windfall gains for parties that can exploit the distressed position of the obligated parties in the auction. It is clear that without significant 3rd party trading the combination of the proposed sell obligation, the proposed buy-side rules that the auction and the significant disparity of generation volumes across the obligated parties that the auction will have a very inefficient price setting process. We do not believe that such a regulated/forced market will be attractive to financial intermediaries unless significant arbitrage opportunities occur.

Question 9: Do you consider it appropriate to have buy-side rules in place and do you have any comments on the detail of such rules?

Buy-side rules are inappropriate in an auction where the parties are obliged to sell their output. We note Ofgem's concerns about potential market foreclosure, but it would appear that Ofgem will be creating the conditions for distressed selling without having provided any evidence that justifies such a restriction nor an impact assessment of the effects of such a restriction on the GB wholesale electricity market. We would also note that we have no evidence that any intermediaries or independent retailers will actually want to participate in the auction and that it will be anything other than an unstable, unnecessary and inefficient means of redistributing volumes among the obligated parties.

CHAPTER: Five

Question 10: Do you consider that there are benefits and risks to the approaches that we have not identified?

We believe that there are a number of unforeseen consequences of the introduction of a Mandatory Auction and the obligations on the obligated parties including, but not limited to the following:

(i) Competition Issues

- **Discrimination:** The application of an obligation on selected parties to sell in the auction together with the buy side restriction on those parties is clearly discriminatory both between the obligated parties and other generators and among the obligated parties themselves. The obligation falls

differentially on different generators, has a differential impact according to the companies generation mix and obliges several parties to sell products that they themselves are net purchasers of. However the key question in relation to discrimination is whether this is "due discrimination" i.e. discrimination that can be objectively justified. In this context, Ofgem are indicating that the market share of the obligated parties collectively, particularly in relation to the supply market dominance gives rise to the need to discriminate, without providing any evidence whatsoever that the market shares of the individual companies are a cause for concern. We would struggle to find any major consumer market where the largest six firms do not account for a significant portion of the total (retail banking, supermarkets, gas supply, car manufacturers etc) with there being a de facto finding that structural measures were justified on anti-trust grounds and the electricity supply market is no different..

- **Property Rights:** The obligation to sell a proportion of output and the restriction on purchasing from the obligated parties clearly interferes with the normal property rights enjoyed by these parties (subject to normal competition rules). These rights include the exclusive right to the "services" of the resource (i.e. the output from the power stations); the right to determine the use (of the output); and the right to delegate, rent, or sell any portion of the rights by exchange or gift at whatever price the owner determines (which may impact on power station valuations, disposals and acquisitions). Depending on the implementation of the proposals, legal difficulties may also arise in respect of contracts which have not been voluntarily entered into by the counterparties.

(ii) ***Financial Issues***

- **Risk Management**: It is unclear how obligated parties will manage the risks associated with the obligated volumes and buy side restrictions. In particular, the parties may have open positions because of the specific volume requirements. These will need to be marked to market in the absence of an objective market benchmark (since by definition the products will be illiquid). This will occasion significant and unnecessary provision of additional collateral against these positions..
- **Shape (Peak/Base load):** The obligation on the obligated parties requires that they sell the obligated volumes as specified in the market irrespective of whether they have the relevant shape in their portfolio. Those with large renewable portfolios will be disproportionately disadvantaged, as wind generation will be exposed to the volatility of the full power price, not just the spark spread. This creates a disadvantage to further investment in renewables. It will also deter the creation of aggregating services, required by independent renewable generators. From the data in the consultation the annual volume will be converted into the product volume obligation. For the obligated parties there will be costs associated with creating and holding the relevant products for sale in the auction.
- **Gas/Carbon/Coal market interaction:** The requirement on the obligated parties to sell the volume will also impact on the gas, coal and carbon positions held. There is the risk that the power position will be uncovered in relation to other required hedges, increasing the risk on parties. Alternatively, the obligated parties will require back to back transactions in the gas, coal and carbon markets in related timescales, increasing the risk that these markets will be distorted by the power sale obligation. In addition, since the coal positions in the longer tenors are likely to be financial there is a clear basis risk against the physical purchase of coal.
- **Cash and Collateral**: The issue of cash and collateral requirements in the auction are issues for further development. Ofgem recognise that these currently form a barrier to entry and imply that new arrangements are required so that the cash and collateral arrangements do not thwart the objectives of the intervention. However, it is unclear at this stage whether the Mandatory Auction will facilitate new entry by enabling the platform to offer low cost arrangements for new entrants,

which would be in effect an additional cross-subsidy for small suppliers and potentially put increased credit exposure (and hence cost) on the obligated parties.

- **Accounting Treatment**: The accounting treatment of the proposed auction products requires further consideration. The key issue is the hedge accounting treatment of the proposed products.
- **Hedging strategy impact:** The proposed intervention would appear to impose a hedging policy on the obligated parties which may be different to that required for efficient management of risks. This will impact on the potential costs associated with positions and the relative risks held by the obligated parties. In addition, the hedge strategy may be different to the risk exposure expectations of shareholders. The MA may increase the overall risk for the obligated parties with a consequential impact on the cost of capital.
- **Basis Risk under RO and CFDs (for licensed renewables of the obligated parties):** The imposed hedging strategy impacts on the risks held by renewable affiliates. In particular, the intervention will introduce a basis risk between the index price under the renewable CFD contract (day ahead) and the requirement to sell 25% of output in defined products forward in the Mandatory Auction. The intervention would seem to impose additional costs and risks for the obligated parties and potentially acts as a barrier to investment for these key players. This may jeopardise the Government's ambitious carbon reduction targets.

(iii) Practical Issues for Implementation

- **Physical delivery (Sell Obligation):** Although Ofgem have ruled out a purely financial product, the nature of the physical product that they want to be sold is unclear. It may be concluded therefore that the product offered and sold will not be a financial derivative or CFD financial instrument based on the N2EX day ahead cleared price. However, it should be noted that in the current trading arrangements, forward trades based on GTMAs are essentially financial and are not physically delivered, though clearly if parties' shortfall then they are exposed to imbalance costs. Although Ofgem state that they require the sale of a physical product in the NETA market such sales in forward market are all financial in nature (i.e. parties sell output on accounts rather than MW for individual stations). It appears as though there is a requirement to sell MW in the auction with parties facing imbalance risk if metered volume shortfalls against contracted volumes. This implies that the products themselves resemble GTMA-type products. Ofgem may be considering some other form of proving physical delivery against the contract. However since parties trade on a production account there is no linkage to physical delivery from wholly owned power stations. This is a key area where further definition is required. It should also be noted that current changes to the financial market regulation are likely to extend to standardised physical products which are traded over regulated platforms ("Other Trading Facilities"). If the auction products qualify under this definition, the auction provider and auction participants may need to be licensed and regulated as financial institutions.
- **Measurement of Sell Obligation:** The indications from the consultation document are that the obligation on the obligated parties relates to an ex ante calculation of the relevant volumes. This would suggest that the requirement to sell in a financial year will be related to the fixed volume for the preceding financial year which will then be divided up into the relevant products. Fixing the sell volumes would appear to be an annual event for a prescribed period. If these assumptions are correct then there is the potential that obligated parties will be tied in to these fixed volumes and that there will be limited potential to flex auction volumes in response to changes in circumstances in the relevant measurement year (for example a significant outage, asset sale, purchase or closure that may occur part way in the year that impacts on the volumes available to sell). Since the annual obligated sell volume would be set ex ante, then the obligated party would be required to sell this volume in the auction. If the party must sell the volume, the key question is what happens if the party cannot sell the full volume at a fair price, perhaps as a result of the absence of buyers (the buy side restriction and lack of independent supplier participation may

contribute to this). In such circumstances the obligated party may be a distressed seller. In addition, since it appears as though the products and volume will be defined ex ante the obligated party may also be forced to buy additional volumes outside the Mandatory Auction to cover the positions required in the auction. Furthermore there is a problem of measurement for the seller in ensuring that they sell exactly 25%. (It should also be remembered that these practical difficulties are *in addition to* the discriminatory impact of having to sell today – with currently prevailing fuel prices – based on last year's market conditions.)

- **Measurement of buy side obligation:** The proposed intervention implies that the buy volume restriction will relate to this fixed production volume and the volume defined in the relevant products. Fixing the buy volumes may be an annual event for fixed volumes of the prescribed products during the period. If these assumptions are correct then there is the potential that obligated parties will be tied in to these fixed volumes and that there will be limited potential to flex auction volumes in response to changes in circumstances in the relevant measurement year (for example a significant outage that may occur part way in the year that impacts on the volumes available to buy). The buy side restriction would appear to provide an issue for hedging the risks for obligated parties. In particular it may be difficult to determine whether the restriction has been breached unless there is a clearly defined level of participation in each auction. In addition, if the Obligated Sell volume was adjusted within the year or between auction rounds for whatever reason (for example to reflect exceptional events) then a party may be long or short with respect to its restrictions and would carry a cost associated with unwinding positions. This may result in a party becoming a distressed seller or buyer.
- **Auction design:** Ofgem envisage that the obligated parties will engage on the development of the auction process following the introduction of the relevant licence conditions. It is unclear at this stage as to the nature and extent of the engagement process. However it is clear that Ofgem have limited experience of the traded electricity market or the practicalities of hedging generation and supply businesses and we are concerned that this may impact on the construction of a successful auction design.
- **Auction rules including closing and clearing:** The detailed auction rules will need to be developed. Specific rules will be required to ensure that the Mandatory Auction can close in each round. It is suggested that reserve prices may be used, but since the Obligated Party is obliged to sell all volume in the auction it is possible that the auction clearing price may trend downwards towards £0/MWh without the significant participation of the non-obligated parties. In the consultation document there is no consideration of the effect of low prices on obligated parties.
- **Platform procurement:** It is unclear how an auction "platform" will be specified and procured either by Ofgem or by the obligated parties. While a platform provider may come forward with proposals, It is equally unclear how and whether the provision of the auction platform would provide a commercial proposition to platform providers.

We believe that it is essential that Ofgem consider and analyse the potential consequences outlined above prior to determining whether an intervention is required.

Question 11: Which approach do you consider is best placed to deliver our objectives at least in terms of cost and risk?

We believe that the approach best placed to deliver Ofgem's objectives is to not introduce a Mandatory Auction. Rather, we believe that Ofgem should facilitate the evolution of an electricity wholesale market that contains the option for trading of financial derivatives.

Question 12: Do you consider that both approaches are able to meet our objectives?

We do not believe that the regulatory intervention as outlined in the consultation document (Mandatory Auction and Mandatory Market Making) is able to meet the objectives. Ofgem has not made the case

that the intervention would improve market liquidity and has presented no evidence to support the conclusions that it would remove barriers to entry or improve competition in the electricity wholesale or retail supply market.

Annex 2

What are the potential costs and risks of mandatory auctions?

This section provides a high-level estimate of the key potential risks and costs RWE and the industry faces associated with the proposed mandatory auction and the change to existing hedging practices:

- Inability to hedge to stakeholder requirements
- Lack of peak volume within portfolio
- Increased transaction costs
- Lack of market participants on the buy side
- Gas/coal market liquidity
- Increased collateral costs
- Carbon tax risk
- Set up and ongoing costs

Given the very limited level of information available on the auction design, the potential risks and costs should be considered a conservative estimate that can be updated as more detail becomes available.

Inability to Hedge to Stakeholder Requirements

Issue – Value at Risk on a forced hedging strategy vs. a company's preferred hedge path as desired by parent company/shareholder expectations.

Method – The actual Value at Risk will depend on how the forced hedging differs from the preferred strategy which will change from company to company. Therefore, an "average" cost had been estimated by taking an assumed 18 month hedge path for a company (which represents typical business activity and Ofgem's view of one potential hedge path) and comparing this against the proposed 36 month auction hedge path to produce a volume differential. This volume differential represents the potential exposure between what the auction has forced a company to do in comparison to a stated company goal which is consistent with shareholder expectations.

Lack of Peak Volume with Portfolio

Issue - A company with a large proportion of single plant type (i.e. predominantly nuclear, gas or coal) may not support peak shape (depending on what plant type is at the margin) so the auction will create an illiquid off peak exposure.

Method - The Off Peak exposure will be defined by the peak shape required in the auction. By taking the flat Baseload MWh level required to meet the Peak MWh level this will leave an Off Peak position. This Off Peak position will be held until liquidity in the OTC market is sufficient to trade Off Peak to the required volume position (until ~3months prior to delivery).

Increased Transaction Costs

Issue - The requirement to buy and sell in the auction to flatten "forced" positions will increase transaction costs over and above existing activity leading to high transaction costs.

Method - The Off-peak volume position incurred by the mandatory auction will mean a company will hold a large volume in an illiquid period, increasing the transaction costs involved in unwinding this position vs. Baseload products.

Lack of Market Participants on the Buy Side

Issue - There is not enough independent supplier volume and the mandatory auction has a longer tenor than Ofgem's view of a Retailer's typical hedge path so there are not enough natural buyers to fill the requirement to sell 25% of the big 6 generation. This gap can only be filled by speculators who require a high return on capital due to risk exposure.

Method - The speculative traders will have a cost of capital by buying any positions in the auction. Likely period will be the prompt and longer dated tenor periods. The cost of capital will be charged until the point in time the position can be released which is conservatively approximated at 1 month (i.e. the next auction).

Gas/Coal Market Liquidity

Issue - Following the auctions all generators will either need to hedge their fuel positions by buying (or selling) NBP Gas and API#2 Coal or buy in advance and price in the power risk that they are taking on fixed fuel positions.

Method - The auction volume stated is a significant amount and this volume would normally take a number of trading days to hedge the fuel legs. This introduces a holding risk on the commodity leg of the CSS or CDS position. The risk can be valued by establishing the duration taken to unwind the volume given market liquidity and the corresponding potential spread movements.

Increased Collateral Costs

Issue - Engaging in the mandatory auction will incur collateral costs on a company due to posting cash as security to the exchange. This is a cost over and above normal business practice and ties up company cash flow.

Method - An exchange will cover counterparty credit risk and in order to do so each counterparty is required to post collateral as cash deposits. The level of collateral is based on the market exposure in the event of default. This exposure is estimated by the power volatility index multiplied by the volume covered in the auction. This value covers initial margining and the variability in the level of collateral tied up in the auction process. The cash tied up by posting collateral will be charged at a company's cost of cash. This is a cost incurred by the mandatory engagement in the auction

Carbon tax Risk

Issue - The Carbon tax (floor price) exposure for periods where the tax has not been set (the last two Seasons) results in an unhedgeable exposure if forced to hedge generation into these periods

Method - Carbon tax is set over an averaging period so as to create an average floor price together with the EU ETS price. The auction does not follow this path and so creates a carbon tax risk to the target price level until the Carbon tax is set. The variability in carbon tax is calculated from 6 months historic EU ETS price movements and is a risk in the final two seasons with a 6 month holding period. A risk capital charge is applied to this risk.

Set Up and Ongoing Costs

Issue - By engaging in the auction there will be additional costs to a company's normal business activities. These will arise through IT, system charges and auction house fees.

Method - The N2Ex Auction is taken a representative cost amounting to £40k per month in fees. A one off cost of ~£200k will be incurred due to Project Management and System development costs. Ongoing Maintenance and business audit requirements will cost a further 39k per year.

Cost Exposure/Summary

The table provides a summary of the minimum costs and exposures potentially faced by RWE and the other Big 6 engaging in the Mandatory Auction.

In order to cover these exposures and cost offers entered into the auction will need to incorporate these additional costs OR RWE/Big 6 will bear the cost and need to recover from elsewhere.

This in turn may be reflected in the cleared power prices which in turn may be fed through to customers as retail prices.

Assumptions - 50% of the Market is gas fired generation and 50% is coal/wind/nuclear. RWE Market share 10%, Industry 70%. Total consumer demand 309TWh. Treasury Green Book discount rate 3.5%

Cost/Exposure	RWE (£m/annum)	Industry (£m/annum)	Impact on Consumer
Inability to Hedge to Stakeholder requirements	£3.1 m	£26 m	£0.08/MWh
Lack of Peak Hedging	£2.5 m	£8 m	£0.03/MWh
Increased Transaction Costs	£1.7 m	£11 m	£0.03/MWh
Lack of Market Participants on the buy side	£3.5 m	£22 m	£0.07/MWh
Gas/Coal Market Liquidity	£2.5 m	£15 m	£0.05/MWh
Increased Collateral Costs	£3.1 m	£19 m	£0.06/MWh
Carbon Tax Exposure	£0.2 m	£1 m	£0.00/MWh
Set Up & Ongoing Costs	£0.5 m	£3 m	£0.01/MWh
Total	**£17 m**	**£106 m**	**£0.34/MWh**
NPV @3.5%over 10 years	**£880.3 m**		