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Andreas Flamm  
Wholesale Markets  
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9 Milbank  
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24<sup>th</sup> October 2012

Dear Andreas Flamm,

Re: RES Response to Electricity Balancing Significant Code Review (SCR) – Initial Consultation.

RES is one of the world's leading renewable energy developers working across the globe to develop, construct and operate projects that contribute to our goal of a sustainable future. We have a portfolio of low-carbon energy technologies and a range of services which together can meet demand from the industrial, public and commercial sectors on whatever scale.

RES has been an established presence at the forefront of the wind energy industry for over three decades. Our core activity is the development, design, construction, financing and operation of wind farm projects worldwide. With a portfolio of more than 5GW constructed and several thousand megawatts under construction and in development, RES continues to play a leading role in what is now the world's fastest growing energy sector. RES is also involved in the dedicated biomass, solar, offshore wind and wave and tidal sectors.

RES welcome the opportunity to respond to Ofgem's consultation on the Electricity Balancing Significant Code Review (SCR) and we hope you take our comments into consideration. The key points to note in our response are outlined below:

1. Overall we are not convinced of the need for this Electricity Balancing SCR at a time of existing market uncertainty due to the Electricity Market Reform (EMR). It appears that a number of the issues Ofgem is trying to address (such as incentivising capacity) will be achieved more effectively through the Capacity Mechanism and further reform should be withheld until this mechanism has a chance to bed down. The case for any change needs to be robustly proven, the opening of the SCR and suggesting changes which are never implemented or which make no real difference to the previous arrangements such as consideration 4 (pay-as-clear) creates unnecessary uncertainty.
2. Some proposals such as the consideration 1 (more marginal main cash-out price) and consideration 6 (improved allocation of reserve costs) have a specifically detrimental impact on wind and intermittent generation which will lead to an adverse impact in terms of the cost they incur. These proposals should not be taken forward unless the benefits significantly outweigh those costs.
3. RES does not actively trade in the balancing mechanism, however the balancing mechanism has a significant impact on the Power Purchase Agreements (PPAs) for our projects. Willingness to take balancing risk over a long term contract is often cited as one of the key inhibitions to pricing PPAs or ensuring that they are bankable. Therefore, we

support consideration 8, improvements for the treatment of intermittent generation, which will be more important going forward as more intermittent generation comes onto the system. However, this proposal should be in addition to other regulatory measures currently being considered by Ofgem and DECC such as the Mandatory Auction or the regulatory intervention to the route to market for independent renewable generations.

4. Specifically we support Option 3, the SO taking responsibility for variations in generation after gate closure. This Option would not only benefit intermittent renewable energy generators but also benefit the whole system as it would facilitate more effective system balancing by the System Operator (SO). This option will reduce imbalance exposure for intermittent generators and efficiencies could be gained from concentrating resources.

RES are grateful for the opportunity to comment and look forward to the publication of the draft policy decision in Spring 2013. We hope you take our comments on board and welcome any further contact in relation to this response, please contact Sarah Husband at [Sarah.Husband@res-ltd.com](mailto:Sarah.Husband@res-ltd.com) or on 01923 299 454.

Yours sincerely,

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## **Chapter 2: Approach**

### **Question 1: Do you agree with the approach and the proposed stakeholder engagement throughout the SCR?**

The approach to the SCR process particularly its length creates market uncertainty at a time of multiple reviews and market changes. The case for any change needs to be robustly proven, the opening of the SCR and suggesting changes which are never implemented or which make no real difference to the previous arrangements such as consideration 5 (pay-as-clear) creates unnecessary uncertainty.

The workshops held by Ofgem as part of the Electricity Balancing SCR consultation process have been a useful forum for industry to discuss the proposals and for Ofgem to clarify issues. However, from the workshops it was clear that the considerations presented in the consultation need to be worked through in more detail. Economic theory needs to be looked at in the context of real data and examples in the GB electricity market. Once Ofgem have completed this analysis it should be published alongside the draft policy decision in Spring 2013 so it can be verified by industry. Overall we are concerned by the apparent lack of analysis that is presented in this consultation. There needs to be robust analysis undertaken by Ofgem into the impact on the GB balancing market of all the considerations presented. Without this analysis it is difficult for us fully evaluate the proposals put forward in this consultation.

### **Question 2: Do you have any evidence that you would like to submit that may be relevant for any aspect set out in this document?**

As we are not direct participants in the balancing market and under the terms of our financing agreements we never could be, we do not have access to evidence other than publically available data sources. However, we are indirectly exposed through our PPAs, where willingness to take the balancing risk over a long term contract is often cited as one of the key inhibitions to pricing PPAs or ensuring that they are bankable.

### **Question 3: What is your view on the interactions between our considerations and aspects of the EU target model?**

The Electricity Balancing SCR needs to work with the implementation of the EU Target Model to ensure compatibility. Ofgem should align the GB market arrangements with the features of the EU Target Model not only as they are decided but also provide input into the developments to ensure the arrangements work effectively for the GB market. The information gathered as part of this SCR will provide valuable information which Ofgem should provide to ACER to inform the development and implementation of European Network Codes. It is invaluable that Ofgem are well informed by GB market stakeholders when negotiating European Network Codes to ensure that the arrangements work effectively for the GB market.

All the considerations proposed will be particularly impacted by the introduction of price zones, as considerations which may work effectively when the GB market is considered holistically may not work if the market is split into price zones.

A key aspect of the EU Target Model we support is market coupling, particularly intra-day market coupling. It will improve liquidity in both the near and long term markets. We support the positive impact market coupling could have on enabling intermittent generation to export power rather than being subject to curtailment. Consideration 8, alternative arrangements for renewables can interact with this aspect of the EU Target Model efficiently. Option 3, the SO taking responsibility for variations in generation after gate closure, should enable the SO to effectively manage the export. This could lead to the reserving of interconnection capacity for the renewable generation.

The Framework Guidelines on Capacity Allocation and Congestion Management for Electricity produced by ACER includes the objective: “facilitating the Union’s targets for penetration of renewable generation.”<sup>1</sup> However, we are concerned by the ability to implement consideration 8 within the current draft Framework Guidelines on Electricity Balancing produced by ACER which states that:

“The Electricity Balancing Network Code(s) shall impose that generation units from intermittent renewable energy sources do not receive special treatment for imbalances and have a balance responsible party which is financially responsible for their imbalances.”<sup>2</sup>

As the drafting currently stands if Option 3, the SO will have to take responsibility for variations in generation after gate closure, is taken forward then they must ensure that this generation does not receive special treatment and they will have to be financially responsible for the imbalance. We request that Ofgem seek an amendment to this clause in subsequent drafts of the Framework Guidelines on Electricity Balancing. As the draft currently stands it is contradictory to the Renewable Energy Directive, please see our response to consideration 8 below. Furthermore, the current drafting does not support the objective of facilitating renewable energy targets and is unlikely to result in the most cost effective balancing mechanism overall.

#### **Chapter 4: Primary considerations**

##### **Question 4: Do you feel there are any further alternatives to the reform options presented under our primary considerations?**

Overall we are not convinced of the need for this Electricity Balancing SCR at a time of existing market uncertainty due to the Electricity Market Reform (EMR). It appears that a number of the issues Ofgem is trying to address (such as incentivising capacity) will be achieved more effectively through the Capacity Mechanism and further reform should be withheld until this mechanism has a chance to bed down. The case for any change needs to be robustly proven, the opening of the SCR and suggesting changes which are never implemented or which make no real difference to the previous arrangements such as consideration 4 (pay-as-clear) creates unnecessary uncertainty.

Furthermore, the secondary considerations of improved provision of information and amending gate closure should be primary considerations. These secondary considerations are of less scope but provide more benefit than some primary considerations. They would also be more straightforward to introduce than some of the primary considerations proposed above.

##### **Question 5: What other benefits or drawbacks can you identify for each of our primary considerations? Please provide any evidence you may have to support your position.**

- **Consideration 1: More Marginal Main Cash-out Price**

The evidence presented in the consultation does not provide sufficient substantiation that by making cash-out prices more marginal consumers will benefit. Particularly regarding point 4.6 where you acknowledge that “a more marginal price could increase both the volatility and spread between prices”. This will not only deter new market entrants it will make it more difficult for them to participate in the market. The sharpening of cash-out prices will not benefit independent market

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<sup>1</sup> Framework Guidelines on Capacity Allocation and Congestion Management for Electricity, ACER, July 2011, [http://www.acer.europa.eu/Electricity/FG\\_and\\_network\\_codes/Electricity%20FG%20%20network%20codes/FG-2011-E-002%20\(Final\).pdf](http://www.acer.europa.eu/Electricity/FG_and_network_codes/Electricity%20FG%20%20network%20codes/FG-2011-E-002%20(Final).pdf)

<sup>2</sup> Framework Guidelines on Electricity Balancing, ACER, April 2012, [http://acernet.acer.europa.eu/portal/page/portal/ACER\\_HOME/Stakeholder\\_involvement/Public\\_consultations/Open\\_Public\\_Consultations/DFGEB-2012-E-004/Consultation\\_document/DFGEB\\_2012-E009.pdf](http://acernet.acer.europa.eu/portal/page/portal/ACER_HOME/Stakeholder_involvement/Public_consultations/Open_Public_Consultations/DFGEB-2012-E-004/Consultation_document/DFGEB_2012-E009.pdf)

participants with small portfolios, particularly intermittent renewable generators in the illiquid GB power market. At present the vertically integrated nature of the market and lack of liquidity means we require PPAs with one of the Big Six suppliers in order to secure project finance for our developments. If cash-out prices become more marginal it will increase the cost of balancing which will be reflected in the PPA terms offered to us which may impact our ability to secure project finance.

Furthermore, more marginal cash-out prices will in all likelihood lead to larger credit requirements for participants of the balancing market to cover the sharper cash-out prices which would become a barrier to entry. It is vital that more independent participants are encouraged into the market to provide diversity, innovation and competition all of which support the energy trilemma: improving security of supply, reducing carbon emissions and reducing energy costs.

The issue raised in the consultation that the current market arrangements may not be encouraging investment in capacity generation is being addressed by the EMR's Capacity Mechanism. The proposal to sharpen cash-out prices is of very little benefit to investment decisions for flexible generation as the EMR's Capacity Mechanism is being introduced for that very reason already. Developing the two mechanisms at the same time could actually delay investment decisions. DECC are also implementing a mechanism to promote power storage, therefore any proposed changes to the BSC need to also align with this mechanism. Furthermore, the increased volatility of prices proposed in consideration 1 and the remaining regulatory risk will not encourage investment and build of more flexible generation. The question also needs to be asked if it is the role of the balancing mechanism to incentivise the build of new generation, particularly flexible generation.

The actual amount of missing money under the current market arrangements and the amount of missing money under reduced 'price average reference' (PAR) needs to be scrutinized. As discussed above the value of this missing money in investment decisions is questionable but decreasing the level of PAR could artificially increase costs. If PAR is made too small it will be open to abuse and balancing costs could increase substantially. Ultimately there should not be excessive costs placed onto the balancing mechanism, which does not necessarily result in improved security of supply, as the extra cost will have to be covered by the consumers.

- **Consideration 2: Single or Dual Cash-out Prices**

It is difficult to see the benefit to the system of introducing this proposal and there is insufficient evidence of the benefit to justify the disruption introducing this mechanism would cause. Ofgem need to specifically analyse the impact of moving to a single cash-out price on all GB market participants. The economic theory and the potential benefits of a single cash-out price needs to be robustly proven. The system is overall typically long and the reasons for this need to be identified and solutions established from there. The consultation also states that "it is generally cheaper to turn down generation than to turn it up". Therefore, the system may currently be working in the most cost effective way to the benefit of consumers.

However, a single cash-out price will in all likelihood also encourage participants to be long and incentivise spilling. It does not create an incentive to balance, as the participant will be charged the same amount either way, thereby participants may not try to trade out their position. If near term incentives to trade are no longer present the market will become more illiquid. As stated in the consultation document "the dual cash-out price was introduced to encourage participants to balance their positions (not spill additional energy onto the system)" and this need has not changed.

The cost of balancing intermittent renewable generation could be reduced under a single cash-out price, however it is unlikely this would be passed on to independent renewable generators through improved PPA terms and also onto consumers. Furthermore, under a single cash-out price at periods of high wind, there could be negative cash-out prices and the impact of this also needs to be

looked into. One consequence of this would be another disincentive for aggregators to enter the market.

- **Consideration 3: Single or Separate Trading Accounts**

The detailed analysis which has been undertaken as part of modification P282 should be thoroughly considered<sup>3</sup>. There is a risk that this proposal will only benefit market participants with large generation and supply portfolios. The impact on all market participants of consideration 3 needs to be looked into in detail. Particularly how imbalance costs will be distributed under single trading accounts as participants active on both sides of the market will be able to more effectively balance their positions leading to more imbalance costs falling upon participants active on only one side of the market.

This proposal will provide Vertically Integrated Utilities with a market advantage. As stated in the consultation document “separate trading accounts were introduced to avoid vertically integrated companies having an undue advantage, and to encourage trading” and this need has not changed. Any advantages which will be provided to the Vertically Integrated Utilities from single trading accounts are unlikely to be passed onto consumers or the independent generators they contract with through PPAs.

Whether the benefits of this proposal will be shared will depend of whether independent aggregators are able to come into the market. We think that this is unlikely given that the majority of new generating equipment is likely to be built either by the existing Big Six or by the independent renewable energy generation developers. Therefore, this provides a very limited market entry point for aggregation services. As the Big Six do not require aggregation services, any portfolio that an aggregator is able to establish is likely to be heavily biased towards onshore wind and intermittent renewables rather than establishing a fully diversified portfolio that enables them to manage their risk effectively. There is a stark contrast between the UK market and Nordpool. Nordpool has many more supply side entities actively involved in the market allowing greater scope for aggregators to play a role in the market offering risk management services and managing that risk in a fully diversified portfolio that includes generation and demand.

Under single trading accounts liquidity in the near-term market will be impacted as there will be a reduced need for the parties to trade as imbalances will be netted. This could lead to reduced liquidity in the longer term market and further discourage aggregators from entering the market. However, whether the majority of trading actually occurs within parties own accounts already resulting in little difference under single trading accounts needs to be investigated.

If single energy trading accounts are introduced we would support the introduction of an information imbalance charge in theory. However, this should not be introduced for renewable generation as it would amount to a penalty, particularly on wind. Introducing an information imbalance charge would introduce additional complexity to the balancing mechanism and the integration with the EU Target Model.

- **Consideration 4: Pay-as-bid or Pay-as-clear for Energy Balancing Services**

The economic theory of this proposal needs to be looked at in detail for the GB market, particularly the behaviour of participants. The whole theory for the pay-as-clear option rests on the assumption that generators will bid their marginal costs into the balancing mechanism when in reality they will probably continue to bid to the same levels as previously. This may only last until the new mechanism because established, however this could continue indefinitely and is therefore open to exploitation.

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<sup>3</sup> P282, ELEXON, <http://www.elexon.co.uk/mod-proposal/p282-allow-mvrns-from-production-to-consumption-or-vice-versa/>

In extreme situations the cost of the marginal plant could be excessively above the other bids. However, all will receive this high payment level and this cost will ultimately fall onto consumers. Again the main beneficiaries of this proposal will be large Vertically Integrated Utilities as they own the generation which will be able to achieve this high marginal price.

- **Consideration 5: Attributing a Cost to Non-costed Actions**

Although a mechanism attributing a cost to non-costed actions is complex to introduce, the potential benefits to consumers should be investigated by Ofgem. This mechanism will work best once smart meters and smart grids are introduced and it would prudent to wait until this has happened before introducing a mechanism such as this. If this mechanism is introduced it is important all the benefits to the consumer ultimately reach them, as in all likelihood they will be dependent on suppliers to pass on the benefits. There is a need to ensure the cost of introducing this mechanism is not so large it defeats the purpose, as the cost of implementation will ultimately be recouped from all consumers.

- **Consideration 6: Improved Allocation of Reserve Costs**

The allocation of reserve costs should be improved. However, a reserve market would be a complex addition to the balancing mechanism. Balancing the system should be priority and National Grid should take actions to procure reserve capacity. As part of this SCR Ofgem and National Grid should examine how they can improve the reflection of reserve capacity costs into the balancing mechanism. For example the SO should apportion the cost of reserve power and actions more accurately in the half hours it is needed. However, this may lead to volatility in the balancing mechanism and a negative impact on wind generation. For example it may be that more of the reserve costs are apportioned to the times of low wind generation, this would increase the cost and therefore the risk of balancing renewables. The combination of this consideration with consideration 1, the sharpening of marginal cash-out prices will create an even greater cost of imbalance for renewables. However, if the SO manages intermittent generation effectively after gate-closure the need for reserve may be reduced or smoothed. The proposal should be carefully examined before implementation.

- **Consideration 7: Balancing Energy Market (BEM)**

The SO needs to ensure they have a sufficient time to complete the necessary balancing actions. Introducing two trading markets will increase complexity and fragment liquidity. If price zones are introduced this additional balancing market will create even more complexity and uncertainty.

- **Consideration 8: Alternative Arrangements for Renewables**

We support consideration 8, improvements for the treatment of intermittent generation, which will be more important going forward as more intermittent generation comes onto the system. Further details of the mechanism need to be investigated but it could be an important step to ensuring effective renewable deployment. The objective of this mechanism should be to balance intermittent renewable energy generators in the most efficient way. This proposal should be in addition to other regulatory measures currently being considered by Ofgem and DECC such as the Mandatory Auction to support liquidity or the regulatory intervention to the route to market for independent renewable generations.

A quote was presented in the Ofgem workshop on consideration 8 from the Renewable Energy Directive<sup>4</sup>:

“Member States shall ensure that when dispatching electricity generating installations, transmission system operators shall give **priority** to generating installations using renewable energy sources in so far as the secure operation of the national electricity system permits and based on transparent and **non-discriminatory** criteria.”

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<sup>4</sup> Renewable Energy Directive 2009, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=Oj:L:2009:140:0016:0062:en:PDF>

This quote was presented as contradictory by Ofgem, however we do not believe that to be the case. The use of the term “non-discriminatory criteria” refers to renewable energy, not all energy. The legislation clearly states that renewable energy should receive priority. The following section of the clause from which the quote was taken further reinforces this point, it states:

“Member States shall ensure that appropriate grid and market-related operational measures are taken in order to minimise the curtailment of electricity produced from renewable energy sources. If significant measures are taken to curtail the renewable energy sources in order to guarantee the security of the national electricity system and security of energy supply, Member States shall ensure that the responsible system operators report to the competent regulatory authority on those measures and indicate which corrective measures they intend to take in order to prevent inappropriate curtailments.”

Three potential options for consideration 8 were presented for discussion at the Ofgem workshop: monitor independent aggregation (option 1), central aggregator (option 2) and the SO taking responsibility for variations in generation after gate closure (option 3). We have critiqued these three options below.

Option 1 is not a constructive option and should be ruled out. We do not believe new aggregators will enter the market under CfDs as there will not be a sustainable business model for doing so. Our response to consideration 3 outlines our reasoning on this further. We are surprised that Ofgem have heard that under the CfD mechanism more aggregators will be encouraged into the market. From the international aggregators we have spoken to the main issue deterring their market entry is balancing risk. Given that Option 1 is unlikely to be successful a fallback option is needed, we believe this should be Option 3.

We agree with the advantages presented for Option 2. Currently we do not manage the forecasting of our generation it is handled by our PPA off-taker and therefore we support the benefits that central aggregation could bring including efficiencies of scale over the current arrangements with individual off-takers. However, the largest benefit to be gained from this proposal would be a clear indication of the balancing cost of intermittent renewable generators which can then be fairly reflected in PPA agreements and CfD strike prices.

We somewhat agree with the disadvantage presented for Option 2, that it is “likely to crowd out independent commercial aggregators”. We would not want any potential commercial aggregators to be undermined. However, given aggregators in our opinion will not enter the market currently this option is unlikely to inhibit their market entry. However, we disagree that it should be considered a subsidy, it should be considered a mechanism to enable intermittent renewable generators to fairly access the market under the existing arrangements. Furthermore, the evidence that Germany recently moved away from the TSO taking responsibility for selling wind generation should be seen as positive. It implies that the market is now able to self manage intermittent renewable energy generator more effectively which may not have been possible without the intervention.

Option 3, is our preferred option of the three proposed by Ofgem. This Option would not only benefit intermittent renewable energy generators but also benefit the whole system as it would facilitate more effective system balancing by the System Operator (SO). This could reduce the balancing costs of the system and therefore cost to consumers and it should be explored further by Ofgem. We agree with the advantages of the option presented by Ofgem in the workshop it would reduce imbalance exposure for intermittent generators and efficiencies could be gained from concentrating resources. However, currently the SO does not have visibility of embedded generation, it is accounted for as negative demand. Therefore, to introduce this mechanism the SO would have gain visibility and control.

To enable the SO to manage the balancing of all individual wind generation after gate-closure they could access the real-time SCADA system data of individual turbines, this method is currently used



in other countries in which RES operates including, Ireland, Sweden, the US and Canada. The technology exists and works effectively in these markets. The inclusion of this technology is standard practice in new turbines but it cannot be retrofitted so this mechanism may not be possible for some older turbines.

SCADA can enable wind generation to be managed in the system more effectively if data flows and the surrounding systems allow it. Wind farm output adjustments can be made but the point of determining the output needs to be through the PPA provider or managed centrally. If the SO obtain this control efficiencies should be gained as resources will be concentrated into a central model. Having access to the SCADA data would remove the disadvantage which was presented by Ofgem in the workshop: “after gate closure it would be difficult to determine whether unexpected variations in output are due to forecasting errors or due to technical malfunctions”.

The SO is the best entity to manage aggregation and balancing of intermittent renewable generation. Therefore we disagree with the disadvantage of Option 3 presented that it: “would shift risk on to the SO after gate closure, who may not be best placed to manage it”. This mechanism would not be discriminatory if only introduced for intermittent generation it would be meeting the requirements of the Renewable Energy Directive and enable intermittent generation to participate in the existing market arrangements.

However, there are many aspects of Option 3 which need to be worked through in more detail including:

1. **Participation** – Participation should not be optional, otherwise the volumes will not be sufficient to manage the risks and justify the mechanism. All intermittent renewables should participate. However, if the service is offered freely as we believe Ofgem envisage than it is unlikely that eligible generators would not participate in this service.
2. **Missed opportunity** – To ensure introducing this option does not stifle innovation and reduce flexibility, the SO needs to be open to changes and improvement suggestions.
3. **Cost** – As discussed above forecasting and managing variations in generation after gate closure if centrally managed by the SO would improve efficiency and should lead to reduced forecasting and balancing costs. As with Option 2 the largest benefit to be gained from Option 3 would be a clear indication of the balancing cost of intermittent renewable generators which can then be fairly reflected in PPA agreements and CfD strike prices. Currently under our PPA’s the full cost of balancing each plant is passed on to us without any of the portfolio benefits the off-taker may obtain when balancing.

Other potential options to improve the balancing arrangements for intermittent renewable energy generators include reducing the gate closure time period and/or moving from 30 minute trading periods to 15 minutes.

**Question 6: Which of the reform options considered under each of our considerations do you believe would provide the most efficient balancing incentives and why?**

We believe consideration 8, alternative arrangements for renewables would provide the most efficient balancing incentives and lead to largest overall benefit to the system. Please see our response to question 5 above.

**Question 7: Alongside this initial consultation we have published preliminary analysis of the last modification to the cash-out arrangements, P217A. Do stakeholders agree with the initial findings of this analysis?**

We broadly agree with the initial findings, however, the analysis should be continued to ensure extreme periods of system tightness in particular are analysed.

**Question 8: What additional analysis could be done as part of the SCR around Modification P217A and the flagging methodology it introduced?**

As mentioned above the existing analysis should be continued to ensure a wider pool of example data is collected to include as many possible different system situations as possible.

**Question 9: Do you agree with our rationale for considering making cash-out prices “more marginal”?**

Please see our comments to consideration 1 in response to question 5 above.

## **Chapter 5: Secondary considerations**

**Question 10: Do you agree with the circumstances we have identified in which the secondary considerations are important?**

The secondary considerations of improved provision of information and amending gate closure should be primary considerations. These secondary considerations are of less scope but provide more benefit than some primary considerations. They would also be more straightforward to introduce than some of the primary considerations proposed above.

**Question 11: Do you have any other comment on the secondary considerations presented here? Please provide any evidence you may have to support your position.**

- **Improved Provision of Information**

It seems an extremely sensible and a relatively straightforward proposal to include as far as possible additional information on the “indicated imbalance” figures currently published by the SO such as information about volume and timing of the SO’s reserve actions, a key issue has always been the pollution of the energy imbalance price by system actions.

- **Creating a Reserve Market**

Introducing a reserve market along with the introduction of a Capacity Mechanism would increase complexity and therefore uncertainty, split liquidity and could increase the cost of SO actions. It is difficult to see how the separation between energy and system actions will be achieved. However, a reserve market should improve reserve cost transparency.

- **Amending Gate Closure**

As discussed above in response to consideration 8, reducing gate close could improve the balancing arrangements for intermittent renewable energy generators. However, there is a need to ensure that this benefit is not outweighed by the risk and cost to the system of moving gate closure closer to real time. Furthermore, if ex-post trading is allowed there is need to ensure it is a benefit not an additional system risk.

- **Residual Cashflow Reallocation Cashflow (RCRC)**

RCRC is necessary consequence of the balancing market arrangements and should not be used as a reason not to implement or implement a mechanism which will improve the balancing arrangements.

- **Reverse Price**

Any changes to the reserve price if they are to be considered should be done so after the case for a single cash-out price, more marginal cash-out price and pay-as-bid or pay-as-clear for energy balancing services are considered. We do not believe there is currently any issue with the reverse price. It remains appropriate for those who are out of balance in the opposite direction of the system to have the cost of their imbalance based on market prices.

- **Setting an Information Imbalance Charge**

Please see our comments to consideration 3 above. An information imbalance charge should not be introduced for renewable generation as it would amount to a penalty, particularly on wind. Setting an information imbalance charge could prove a valuable mechanism to ensure accurate information is submitted by participants. However, the charge would need to be proportional to the level of the imbalance and to the negative impact caused by the imbalance.