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Dear Malcolm,

Thank you for the opportunity to respond to this Consultation Document. This response is provided on behalf of the Centrica group of companies excluding Centrica Storage Ltd.

Centrica welcomes the consultation process and the opportunity provided for industry parties and other stakeholders impacted by the level and behaviour of BSUoS to provide views on both the forecast of forward costs and the nature of the overarching incentive scheme.

However, as previously indicated within this overall consultation process on SO Incentives, we have been disappointed by the limited amount and quality of explanatory/supporting information provided to justify the assertions and assumptions put forward by National Grid. Given their role and experience as GBSO, Centrica would expect National Grid to be able to provide more extensive and better quality information as part of this consultation to support its cost forecasts and proposed form of incentive scheme.

This lack of information hinders Centrica (and other industry parties) to provide fully informed views/responses to the majority of the 49 detailed questions raised by National Grid.

We have provided answers to the detailed questions where possible. However in the light of this difficulty we have also chosen to provide a response to the consultation which draws on some of the detail provided in the consultation and some of the observations we have made to support a broader response on the key issues we feel arise. Our response is focused on the following main areas:

1. Comments on the forecast BSIS scheme(s) and sharing factors for 2010/11;
2. Failure by NGET to provide evidence to show the benefits for a multi-year BSIS scheme;

3. The forecasting methodology and the application of mechanistic and overly simplistic backward looking methods which fail to demonstrate that the necessary intelligent insights have been applied to understand the past to effectively predict the future component costs covered by the BSIS scheme;
4. Centrica's belief that a bundled scheme retains the best balance of incentives to manage the BSIS costs and provides the benefit of aggregating individual risk exposure to create a diversified and thus lower forecast risk;
5. The quality of the analysis overall and the need for NGET to be more transparent and clear in describing the reasoning associated with analysis used to derive forecast information to facilitate informed and meaningful stakeholder engagement.

BSIS Scheme forecasts and sharing factors for 2010/11

Centrica notes the continued use of asymmetry of the sharing factors proposed for the 2010/11 scheme. National Grid argues that the asymmetry occurs due to the impact of low probability high cost events such as extreme weather conditions (for example, a 1 in 20 winter that would produce very cold conditions significantly increasing margin costs). This increase in costs is expected to be more than costs decrease for similarly low probability events (such as a 1 in 20 warm winter that would produce mild conditions). It is questionable whether the BSIS scheme should be designed to cater for these kinds of rare 'twice in a lifetime' events. These kinds of cost impacts may be better managed through the use of Income Adjusting Events which are typically used to provide the regulated companies financial certainty for rare, unpredictable and high cost events. This approach could enable symmetrical sharing factors that would better incentivise National Grid where costs were higher than target.

We are pleased that NGET feels sufficiently confident in its forecasts for 2010/11 costs to propose increased sharing factors and caps and collars. However insufficient information has been provided in relation to the 2010/11 forecast Incentivised Balancing Costs (IBC) for us to be able make a detailed informed comment on the appropriateness of the deadband adopted (e.g. how was £992m as the upper limit of deadband selected) and cap and floor proposed (i.e. on what basis were -/+£20m selected). In addition we believe that there is a lack of information and justification to explain the basis on which the asymmetric sharing factors were determined as well as the (higher) sharing factors. In general, as these reflect NGET's forecasts and we are aware from Ofgem's letter published on 30 November that Ofgem is concerned regarding the accuracy of NGET forecasts; we would anticipate that it would be appropriate to adopt:

- (a) A deadband starting from a lower point than that indicated;
- (b) Symmetry of sharing factors and caps and collars.

We would expect Ofgem both to be in the best position to determine these values and that it is their responsibility to determine them based on their own views for forward external SO costs. However, we would suggest that one method for assisting such a determination is to re-run the

NGET forecast adopting Ofgem views of key assumptions to derive a modified version of the total IBC forecast for 2010/11.

Within the forecast, it is notable that various costs forecast for 2010/11 show a significant increase from the expected 2009/10 outturn. It is, however, very unclear what drives each of these variations and thus why it is sensible to assume costs that have fallen substantially during 2009/10 from National Grid's ex-ante forecasts should now be expected to rise substantially in 2010/11 back to levels consistent with the 2009/10 forecast which have subsequently proven to be highly pessimistic.

Also while information is presented to show how factors translate from the latest view to the forecast for 2010/11, these movements are not shown in the cost categories that are used to build up the forecast. For example, the Operating Reserve/Margin forecasts increase due to varying factors, including a redefinition of what is included in the cost component. As it stands with the information provided it is impossible to understand the relative impacts of expected power price or other effects in the forecast, preventing stakeholders from being able to comment on the movements of costs within the forecast.

Multi-year BSIS scheme

National Grid continues to advocate the merits of a BSIS scheme of extended duration and we note Ofgem appears to be favourably minded to such an extension. However, Centrica remains unconvinced that there is a positive benefit case for extending the duration of the SO incentive scheme beyond one year based on the justifications put forward to date. There has been no substantive evidence or examples provided to justify some of the assertions made about the benefits of a multi-year scheme and detractions of a one year scheme. This is important given the obvious risks of consumers bearing the costs of funding windfall gains or having the increased likelihood of Income Adjusting Events that are more likely occur when forecasting complex and uncertain costs over a longer period. This is especially problematic in an environment where forecasts are driven by backward looking and overly mechanistic forecasting methods that lack the necessary evidence based robustness.

The assumed benefits of extending the scheme are suggested that it would:

- better align incentives between the internal SO 5 year price control and the external SO scheme;
- provide greater opportunity for larger upfront investments in systems and processes for which the pay-back period is greater than one year;
- a reduced administrative burden (as indicated by Ofgem) on National Grid – this would appear to be a weak basis for change.

Centrica is unable to make a judgement of the scale of the benefit that would come from the greater investment opportunities that are suggested to arise from a multi-year scheme. It would greatly assist if National Grid could provide evidence of past investments which have been successful, unsuccessful and not pursued; specifically we would seek that National Grid provide examples of investments that were:

- undertaken in the past to reduce costs that have not paid back within the one year scheme but which would have done over two years;
- identified, but not pursued due to insufficient time for payback;
- identified for the future that would only be undertaken if the decision was made to move to a two year scheme.

In addition, it would be helpful to gain further detail of the activities and investments that National Grid has reported that it has undertaken¹ to better manage costs. If industry had a deeper knowledge of the cost benefit of these projects, it would be better able to assess the incremental advantage of a multi-year scheme.

If the above information were to be presented it might allow stakeholders to judge whether these benefits would balance the potential risks. However, Centrica believes that these benefits may be accessible by alternative means, either through the existing five year internal SO price control or through an industry led modification process. It may be possible that an alternative approach is taken to allow for these longer-term investments e.g. in the systems, processes and contracting strategies within the SO incentive scheme. An example of one approach would be to allow explicit revenue allowances to be allowed within the BSIS where a business case is approved for investment. The business case could either be part of the annual BSIS process or perhaps could be more ad-hoc limited price control re-opener style process for the SO price control that would allow a new revenue stream to pursue a new activity that has demonstrable benefit to the industry (which could be lost if not done before the next review of the SO price control) that was not envisaged that the setting of the previous price control.

The alignment of the SO internal and external scheme is considered as a benefit, however in the case of the proposal under consideration here, the extension to a two year scheme does not create that benefit of fully aligning the arrangements but it does create a significant increase in the forecasting risk associated with the second year that could lead to windfall loss or gains.

Centrica believes that this additional forecast risk error inherent in extending the BSIS scheme to multi-year is not beneficial to the industry. In addition we believe a multi-year scheme could lead to a change of behaviour by National Grid which could result in BSUoS charges becoming increasingly volatile with costs deviating outside of the incentive bands and falling it the industry. The use of drivers to mitigate this risk is predicated on the ability to accurately determine and understand the relationships between the costs and the observable variable. The analysis presented in the consultation document for the NIV and the relationship with Bid/Offer prices demonstrates how difficult this process is.

Taking the Net Imbalance Volume analysis as an example, National Grid has made a choice to use a three month historical average to allow it to investigate the historic market length. It

¹ New techniques to optimise its reserve requirement calculation; a successful contracting strategy to reduce constraints costs; and securing more efficient ancillary services contracts.

does this without explanation and what limitations it imposes by doing this (e.g. would this exclude any seasonality effects?). It also fails to outline which (if any) variables or trends it had explored to determine whether there is an impact on market length that could be used to refine the forecast. National Grid then makes subjective adjustments to account for 'recessionary effects' that apply only for two months and make an overall adjustment to the whole curve based on their belief. These adjustments should be better explained to avoid appearing arbitrary. As part of this we believe it would be helpful to add a further explanation to include which other variables have been explored and why they were rejected as drivers for the forecasts. This would provide additional confidence as to level of rigour applied and would demonstrate the robustness of forecast values by showing the lack of sensitivity to the rejected variables.

Centrica feels unable to make any informed comment on the statistical robustness or validity of the claims of a relationship that could be used to drive target costs that have been made by National Grid. We would urge National Grid (or Ofgem) to seek independent scrutiny of this analysis to provide assurance to the industry that it is robust both from a statistical perspective and is a credible basis for forecasting.

Forecasting methodology

Centrica welcomes the efforts made by National Grid to bring greater transparency to its forecasting approach for the cost components of the BSIS scheme. However, Centrica believes there is considerable room for improvement in the quality and transparency of information provided. A key measure of National Grid's ability to forecast is the variation of outturn versus forecast. Centrica would highlight the variations reported for the 2009/10 scheme which it does not believe provides confidence in the ability to forecast longer than a one year scheme.

The approach for forecasting presented by National Grid appears to rely heavily on history based relationships and drivers. Within the consultation document we have found a number of apparent weaknesses, inconsistencies or lack of clear explanation from which to make informed judgements on the forecast numbers presented. This section explores some of our specific concerns with the information presented in the consultation.

National Grid has used statistical analysis techniques to develop many of the relationships for the forecast of volumes or price elements in the BSIS scheme. These techniques, when applied in demonstrably rigorous manner, are able to provide useful insights into the relationships between variables. However, it is not clear from the consultation document the degree to which the statistical analysis has been challenged for its robustness internally within National Grid or the extent to which it would be accepted externally by independent experts in statistical analysis.

The consultation document often lacks explanation of the background to the analysis provided. For example, we would have liked to have better understood the rationale behind the selection of the variables and trends used. There is a clear risk that not exploring possible relationships between a variable or emerging trend could over time lead to a systematic deviation between forecast and actual costs (or volumes). This would not be expected to lead to large uncertainties in a scheme when it is set for short timescales (e.g. one year) because these trends and relationships can be revisited on a frequent basis. This may become a material

issue were a longer term scheme to be implemented (about which Centrica has serious reservations).

Centrica believes that where mechanistic backward looking approaches are used it creates a limitation on the ability of this historic analysis to reliably predict the future. The further forward a forecast must look, the greater consideration must be given to understanding the factors that will drive change in the future.

Much of the statistical analysis relies on averaging of historical data. This is transparent and provides a basis for a forecast in the short-term where there are no factors that suggest the future will be very different from the past. However, the description of this analysis lacks consistency with varying and sometimes undefined periods of history under consideration that lack coherent justification surrounding why a particular period was selected in each case. Centrica would also note the inconsistencies when determining the historical periods that are used for different cost elements. For example, the BS Response cost is suggested to be stable or falling by looking at a 24 month and 12 month average. The BS Fast Reserve shows a trend of increasing costs and that upward trend is carried on into the forecast. There is no explanation as to why different analytical treatments are appropriate, when the data would suggest a common approach could be utilised.

We have tried to highlight examples where we feel that the explanation or information provided within the analysis does not build sufficient credibility or we feel is stretching the credibility of statistical techniques.

A good example of where it would be helpful to have a more full description of National Grid's thought process is the analysis of market length and margin actions. Centrica would acknowledge that intuitively there should be a relationship, however, the approach adopted in the consultation document requires the presentation of additional information to be seen to be robust.

The chart shown in the consultation document (figure 34) has a vast array of data points spread over a wide range of values with a line that represents the relationship drawn through it. We believe this analysis has a number of weaknesses:

- It fails to identify the period over which these points are drawn, e.g. if multi-year, it would be useful to show by years to create insight into whether changes are occurring over time;
- It does not make clear if this chart includes both volumes of actions in the Balancing Mechanism and Ancillary service contracts for margin. Therefore it is not clear how this volume of actions should be priced;
- It does not adequately explain how the lines were drawn through such a cloud of data points and how robust that result is in statistical terms.

Furthermore, there is a deterministic element that is within National Grid's control in this relationship. The volume of margin actions in any period is determined by the adherence to

National Grid's own policy for margin. This is set to ensure a 1 in 365 probability of sufficient generation to meet demand. A potential test of whether National Grid was being efficient in this area could be to see the historic generation security standard that was achieved for settlement periods where actions were required. This information could then be used to judge the credibility of future forecasts.

In summary, Centrica believes that there is a need to demonstrate greater statistical rigour throughout the forecasting process, providing a more expansive explanation of National Grid's own understanding of what drives the numbers and the intelligence that it applied to the statistics to create its forecast. This will require history to be adapted recognising changes over time, e.g. market rule changes and other step changes. National Grid must provide greater explanation of its adjustments to data to provide it appearing biased or making them overly simplistic to fit with a proposed relationship/story. The explanation should extend to a greater demonstration of what drivers were considered and rejected as it is important to provide transparency as to what factors were considered and dismissed and why, developing confidence in the rigor of the analysis.

Further supporting evidence should be provided to demonstrate the statistical robustness of relationships when using scattered data to demonstrate a statistically significant 'best fit' with consideration to using more structured thought as to what is actually underlying the volumes or prices. This may provide improved confidence in the longevity of these relationships.

The fundamental principle within this process is to intelligently examine history to understand the drivers of behaviour (which may be complex and multi-variable) and to then consider how these will roll forward (and what new drivers may arise and step changes occur) to predict how costs may look in the future.

Bundled scheme

National Grid puts forward two main arguments for separating constraint costs from the BSIS scheme. These are firstly that these costs have a different drivers and risk profile. Centrica believes that the varying risk profiles across the scheme components being included within a single scheme bring significant benefit to the industry by diversifying the individual risk profiles and allowing gains in one to be offset by losses in another. National Grid's second argument is that market developments could affect the constraint costs. This is not a strong argument for unbundling scheme, because this is true for all aspects of the BSIS scheme. Every element could be affected by changes to industry or market arrangements and could modify the costs of services or actions that National Grid would incur.

Another argument put forward for unbundling is that it makes cost monitoring easier. While it is true unbundling will do this it is perfectly possible to achieve transparent cost monitoring within a bundled scheme. Furthermore there are significant downsides to structurally unbundling the costs e.g. it exposes the industry to undiversified and thus higher cost risks; and where some actions are not easily categorised it leads to arbitrary or subjective cost allocation.

In addition, exacerbated by the latter issue (subjectivity of cost allocation) unbundled schemes can create an incentive to move cost between pots. The potential "cost allocation movement" incentive would have a negative impact where the maximisation of profit relies on the

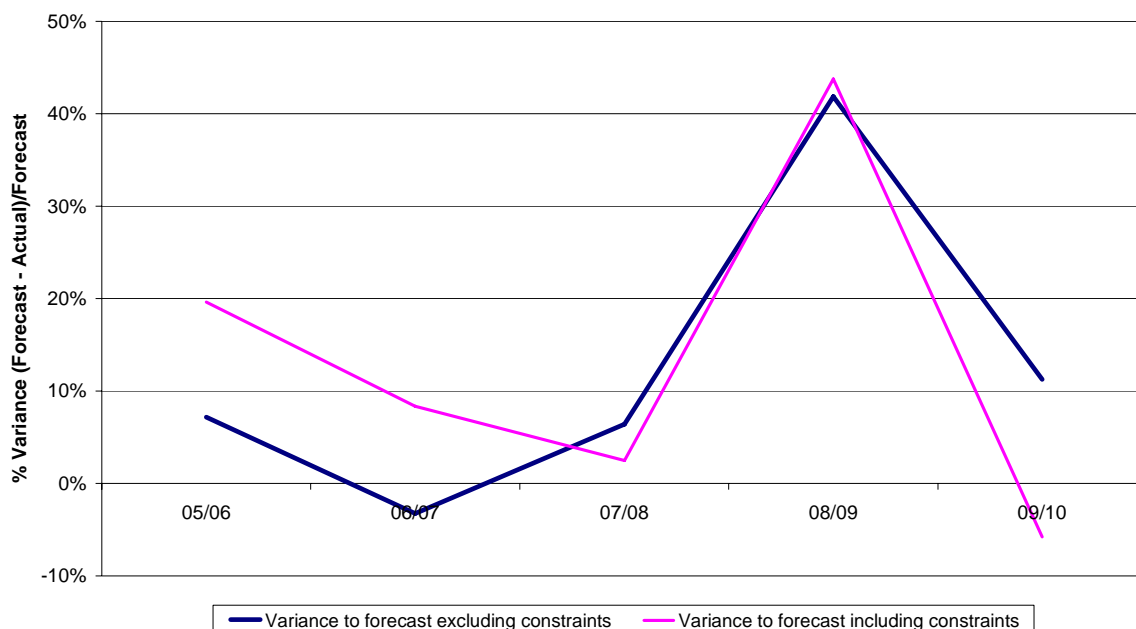
management of cost allocations between pots, rather than the management of costs. Without careful design, incentive costs could be played off against each other and costs that would have been absorbed in the ebb and flow of the different elements in previous years would fall directly to the industry.

It is hard to reconcile the argument that constraint costs have different drivers to the other 'Energy' components, when there are discussions within the document regarding sterilised margin, loss of 'free' headroom due to export constraints and that BM prices are inherently linked to the level of competition in the BM. It could be expected that where constraints increase, the level of competition for actions that have any locational element will be reduced.

Centrica strongly believes that a bundled scheme retains the best balance of incentives to manage the BSIS costs and provides the benefit of aggregating individual risk exposure to create a diversified and thus lower forecast risk. The bundled nature of the scheme permits cost areas to emerge and be managed without the need to create an additional scheme item; and also avoids subjective/arbitrary cost allocations where SO actions are not easily categorised to one or other of the unbundled cost pots.

The effectiveness of a bundled scheme approach can be seen in the performance against the forecast. The graph shows that including constraint costs does not radically change the variance between the forecast and the outturn. Indeed, over the past two years including constraints in the comparison actually reduces the variance.

Historic variance to forecast of total BSIS cost including NIA



Centrica believes separating constraints out increases the exposure of the industry to the greater risks of volatile costs. This is because with separate (smaller) pots of costs there is no opportunity for one element to offset another, therefore the limits on the incentive may be exceeded earlier exposing the industry to 100% of further costs that would not have been seen under a bundled scheme. In addition, we believe that it will increase the administrative burden

and complexity of the BSIS scheme due to the need to have sufficient scrutiny over the allocation of costs between separate schemes.

Quality of the information and presented analysis

National Grid retains substantial information advantage over any single market participant and as such Centrica believes that it should be beholden on National Grid to undertake and publish high quality analysis.

The quality of information provided to the industry through the consultation process is critical to enable wider industry parties to contribute informed views and opinions within this process. Centrica believes that the Initial Consultation document contains data and explanations that are of varying quality and transparency in explaining the decisions, conclusions and forecasts for the various components of the BSIS, and it is noted that there is almost no discussion of derivation of proposed scheme parameters for different scheme incentive designs.

The limitations of the way that information is presented in the consultation document would suggest that this process lacks the ability to bring the necessary informed scrutiny to this process and brings into question where Ofgem should play a more active role to actively steer the process and encourage greater consistency and sensitivity analysis for forecast features. We would suggest that, if there is to be increasing reliance on statistical techniques to provide more mechanistic forecasts, that they be scrutinised by independent analysts to ensure that these techniques are robust, appropriate and applied in a consistent manner.

Our core arguments can be summarised as follows:

- The forecast cost information provided does not allow the identified cause of cost increases to be seen in terms of the separate cost elements (e.g. margin), preventing stakeholders from being able to comment on the movements of costs within the forecast.
- Symmetrical sharing factors and caps and collars should be applied;
- Centrica believes that the additional forecast risk error inherent in extending the BSIS scheme to multi-year has no net benefit to the industry and in particular no compelling examples/evidence have been presented by National Grid to change this view;
- Centrica feels unable to make any substantive informed comment on the statistical robustness or validity of the claims of a relationship that could be used to drive target costs that have been made by National Grid for a number of volume and price elements of the BSIS forecast for 2010/11;
- This process should adhere to the fundamental principle of intelligently examining history to understand the drivers of behaviour (which may be complex and multi-variable) and to then consider how these will roll forward;

- There is a need to show greater statistical rigour throughout the forecasting process and demonstrate more a comprehensive understanding, in order to apply intelligence into the use of the statistics for forecasting purposes;
- Centrica believes a fully bundled scheme retains the best balance of incentives to manage the BSIS costs effectively and avoids industry exposure to otherwise undiversified and higher individual component cost risks;
- The quality of information provided has to improve to enable the industry to contribute informed views and opinions within this process i.e. key to effective stakeholder engagement.

I hope these comments have been useful. If you want to discuss any element of this response, please do not hesitate to contact me on 07789 579169 or at Ricky.Hill@centrica.com.

Yours sincerely,

Ricky Hill
Industry Development Analyst
Centrica Energy

Responses to individual questions:

Q1. *Have all cost drivers for Energy, Reactive Power, Black Start and Transmission Losses been captured and correctly identified as being within or outside National Grid control?*

A1. It seems that all reasonable cost drivers have been captured and the degree of National Grid's control of these correctly identified. Centrica would caution against applying drivers to costs more widely than the proposal on reactive power without considering the potential to dull incentives on National Grid to find innovative solutions (e.g. those that are insensitive to wholesale power price).

Q2. *Have all the cost drivers for Constraints been captured and correctly identified as being within or outside National Grid control?*

A2. It seems that all reasonable cost drivers have been captured (within the time horizon of the BSIS scheme). With regards to control, whilst we would agree that in the short term (e.g. within day), as SO, National Grid does not have a significant amount of influence on constraint volumes, we believe that as TO (together with the Scottish TOs) it does have an influence over volumes in the longer term.

Q3. *Is historic market length a suitable proxy for future market length?*

A3. This seems a reasonable approach subject to (i) only using the historic period subject to same Balancing Mechanism cashout rules (as changes in these influences the equilibrium market length); (ii) consideration of any wholesale power price level effects (these drive bid/offer prices levels; thus SBP; thus market length); and (iii) consideration of known developments in the market that will have a predictable influence on market length.

Q4. *Do you agree with the conclusions we have reached with respect to the observed changes in NIV since BETTA go-live? If not, why not?*

A4. No. There is no satisfactory explanation of the reasons for the step change in NIV c. September 2008 and the subsequent trending back to 200MW long position. Understanding this behaviour is important in projecting forward behaviour of NIV.

Q5. *What do you believe is the impact of wind on market length at this time; how do you see this varying as wind penetration increases and what do you believe are the key*

drivers? What additional analysis could be carried out to determine the current and / or future impacts?

- A5. The impact of wind on market length will be strongly related to the predictability of wind output over timescales at which the market can take action and the incentives on the market to be in balance. It may be reasonable to assume that increasing wind penetration may drive an increased volumes of actions in the BM (independently or relating to BS contracts) to manage variations in wind output until predication becomes more robust. The impact is likely to be seen as wind penetrations become material such that individual generation portfolios are unable to economically maintain sufficient flexibility within their own portfolios to manage the variability of an increasingly large proportion of wind that they own. This would then have an effect on BM cashout prices and in particular drive higher SBP which in turn is like to influence a “longer” market NIV equilibrium. To confirm this rationale or otherwise NGET should confirm any relationship or otherwise between SBP and NIV and conduct modelling of cashout prices with increasing wind penetration.
- Q6. *Do you agree with our base case scenario for NIV? If not, which scenario should be used and why?*
- A6. Whilst the average 200MW long position of the baseline may seem reasonable given very recent history, we are unclear if it is an appropriate level/assumption for 2010/11 without adequate explanation of behaviour since September 2008. We would also wish to better understand the basis for the shape of the baseline and both whether it is reasonable to project forward such a shape and what the impact of a different assumption would be on forecast SO costs.
- Q7. *Are there any other factors or scenarios that you believe should be considered in deriving a NIV forecast?*
- A7. As indicated in our response to Q4 above, we would wish to see a better explanation of the historic behaviour of NIV since September 2008 to understand whether this supports the NIV forecast. We would also wish to see a clear rationale for adopting the proposed shape of NIV. It should be important to consider forward views of (wholesale and) BM cashout prices which we believe influence NIV behaviour.
- Q8. *Do you believe that installed wind capacity will increase as indicated? If not, please indicate how you believe the rate will change and why.*
- A8. We believe NGET is in the most informed position to determine whether the indicated/proposed increase in wind capacity is reasonable or otherwise. We would

seek explanation and justification of the basis for the forecast provided by NGET so that we can form a view of whether it appears reasonable or otherwise.

Q9. *Do you believe that nuclear generation will maintain its current level of availability?*

A9. This is clearly a difficult aspect to predict given a sudden unplanned outage of nuclear plant can lead to prolonged reductions in overall nuclear availability. We would suggest two levels are considered for forecasts: recent stable levels of availability and, as a sensitivity test, the risk of materially reduced availability due to unplanned nuclear outages.

Q10. *Do you agree with the assumptions made in producing a frequency response volume forecast? If not, please indicate why not.*

Q11. *Do you agree with the assumptions made in producing a fast reserve volume forecast? If not, please indicate why not.*

Q12. *Do you agree with the assumptions made in producing a reactive volume forecast? If not, please indicate why.*

A10,11,12. NGET is in the most informed position to determine these and it is difficult for Centrica to form a contrasting view but the assumptions seem reasonable.

Q13. *Do you agree with the assumptions made in producing a demand forecast? If not, please indicate why not.*

A13. NGET is in the most informed position to determine these and it is difficult for Centrica to form a contrasting view but the assumptions seem reasonable, on the assumption that the impact of increasing wind penetration (i.e. wind generation) is modelled explicitly.

Q14. *Do you agree that the relationship between the volume of margin actions and market length is an appropriate input to the model?*

A14. Whilst Figure 34 appears to show a potential relationship – it is in truth very weak given the dispersion of observation. Furthermore it is unclear for what historic period Figure 34 covers and thus whether it is appropriate to consider all the observations included (given potential differences in key influencing factors over time). As such determining a linear relationship (or otherwise) would appear very difficult to do and is not something Centrica feels it can meaningfully comment on given the information it has available.

Q15. *Do you believe that wind generation will displace conventional generation behind key boundaries? Do you believe that conventional generation behind constraint boundaries will stop running?*

A15. Yes. Our view is that wind generation will essentially act as must run generation. Thus increasingly conventional generation particularly those behind constraint boundaries will be forced to run more marginally. Our view is that conventional plant behind constraint boundaries will act as a combination of “gap fillers” for non-windy days and as BS providers to help the GBSO manage the overall wind variability.

Q16. *Do you have any comments on the assumptions made in producing a margin volume forecast? Are there any other considerations that should be included in the margin volume assumption?*

A16. Whilst there appears to be some form of relationship at higher levels of export constraint volumes it is clearly not the case at lower levels. We would view it as difficult to derive a meaningful relationship covering the full span of export constraint volumes.

NGET is in the most informed position to determine whether additional factors should be considered and it is not possible for Centrica to provide suggestions on the basis of the information available.

Q17. *Do you agree that the Argus forward price values are an appropriate measure of wholesale prices over the forecast period? If not, please indicate why not.*

A17. Whilst it is sound to use market forward prices to determine a forward view of wholesale prices, care has to be taken. Within traded markets forward curves will move to a greater or lesser degree on a daily basis as new information comes to light and market sentiments change. As such forward curves in Argus will be moveable and potentially volatile over time. We would prefer that Argus forward prices be used as a start point for developing a stable forward forecast based on forward modelling of the market fundamentals (taking into account the observed historic relationship between prices derived from fundamental market modelling and those seen in the market).

Q18. *Do you agree that Bloomberg is a suitable source for Carbon prices and the Euro to Sterling conversion rates used within the forecast? If not please indicate why not.*

A18. Bloomberg would appear to be a reasonable source for this information although we note Point Carbon is a universally recognised provider of carbon prices.

Q19. *Do you agree with the assumptions made in producing a BM energy price forecast? If not, please indicate why not.*

A19. The approach seem reasonable, although we note it is high level and based on a loose relationship and as such it is not clear to what extent this will capture detailed forward behaviour.

Q20. *Do you agree with the assumptions made in producing a BM Response price forecast? If not, please indicate why not.*

A20. NGET is in the most informed position to determine these and it is difficult for Centrica to form a contrasting view. However it notes Figure 39 would not appear to demonstrate a clear relationship and the extent to which this information can be used to reasonably forecast BM response prices is unclear.

Q21. *Do you agree that a 12 month average of the prices for Footroom is a reasonable assumption? If not, please indicate why not.*

A21. Whilst this methodology does not seem an unreasonable approach it is backward looking and may not capture key changes in forward behaviour. There is insufficient detailed analysis or argument presented to allow a reasoned judgement to be made regarding the appropriateness of a 12 month average, versus 24 month or since the beginning of BETTA. We would wish to understand though why NGET cannot forecast forward based on an understanding of the key drivers of Footroom prices.

Q22-24 *Do you agree with the assumptions made in producing a Fast Reserve/Margin/Balancing Services price forecast? If not, please indicate why not.*

A22-24. Whilst this methodology does not seem an unreasonable approach it is backward looking and may not capture key changes in forward behaviour. There is insufficient detailed analysis or argument presented to allow a reasoned judgement to be made regarding the appropriateness of period over which the historic data is averaged. We would wish to understand though why NGET cannot forecast forward based on an understanding of the key drivers of Fast Reserve/Margin/Balancing Services prices.

Q25. *Do you have a view on the future trend of STOR contract prices?*

A25. NGET is in the best position to make an informed view of STOR contract prices. Centrica can only consider the position of individual plant within its portfolio which may

or may not be contracted for STOR under tender and as such may or may not reflect forward STOR providers and their costs which drive overall STOR contract price levels.

Q26. *Do you have any further comments regarding this forecast or the assumptions made in its development?*

A26. We would wish to understand how each cost component is taken from the existing latest view and the forecast for 2010/11, based on the various elements described in the waterfall charts. We would also like to understand how the probabilistic elements are combined to provide an overall forecast and the extent to which any relationships between these component elements (e.g. correlations) are captured.

Q27. *Do you have any comments on the background and assumptions made in constructing the constraints volume forecast?*

A27. NGET is in the best position to make an informed forward view of the prevailing generation background (inc. outages) and in particular prevailing transmission background which underpins the forward expectations for constraints volumes. Whilst the assumptions provided by NGET do not appear unreasonable Centrica does not feel able to confirm whether they are appropriate or otherwise.

Q28. *Do you have any comments to make regarding the assumptions made in constructing the constraints price forecast?*

A28. Whilst the approach to deriving assumptions does not seem an unreasonable approach, it is backward looking and may not capture key changes in forward behaviour. We would wish to understand though why NGET cannot forecast forward based on an understanding of the key drivers of constraints prices.

Q29. *Do you agree with the methodology used to forecast the second year of a two year scheme for all components except constraints?*

A29. We believe the same methodology should apply for both Year 1 and Year 2, and that the distinction should be in the view of key forward parameters/drivers which determine the forecast volumes and prices for Year 2. Where a backward looking methodology for deriving assumptions/forecasts is used (e.g. 12 month rolling average) this will clearly introduce mechanically increased uncertainty within the forecasts for Year 2 (forecasts based on forecasts; and/or further distant history).

Q30. *Do you have any suggestions for other factors that should be taken in to consideration for the second year?*

- A30. As previously noted; the key issue is to capture future levels/changes of key assumptions and drivers in Year 2 (versus Year 1) which will drive volumes and prices for Year 2.
- Q31. *Do you agree with the benefits outlined for the unbundling of constraints costs and the remaining balancing cost components into separate incentive schemes? What additional issues need to be considered?*
- A31. No. As indicated in previous Centrica responses to earlier NGET consultations on this topic; we believe the current bundled incentive scheme is appropriate and should be retained.
- Q32. *Do you agree that there is a misalignment in internal and external SO incentives caused by different scheme durations?*
- A32. We understand that in principle, there may some issues of misalignment created by the differing timeframes of internal and external SO scheme durations. However it should be recognised that even with alignment of these two schemes, it must not be overlooked that a five year control has its own weaknesses as you reach later years due to the time varying incentive properties of periodic resets of revenue controls. Furthermore there are greater risks introduced from long-term forecasting that supersede this misalignment.
- Q33. *What option could or should National Grid use to develop a 2 year constraint forecast?*
- A33. As indicated above we believe the basic methodology should be forward looking based on an understanding of historic behaviour, identification of key drivers, prediction of key changes in the behaviour of these and thus consequential impact on volumes and prices of Balancing Services procured by NGET. As such this methodology should be able to be rolled across a 1 year or multi-year period consistently. To the extent NGET's current methodology cannot be rolled forward in this way we would expect it to be addressed appropriately in order to be able to do so.
- Q34. *Do you agree with the benefits outlined for the implementation of a two year incentive? What do you believe the additional benefits and / or drawbacks are of a multi-year scheme?*
- A34. Whilst we accept there are some potential benefits (evidence is yet to be provided that these are material) resulting from the extension of the incentive scheme to 2 years we

are unconvinced that (a) these are material and (b) these outweigh the potential downsides from forecasting risk.

Q35. *Do you agree with the introduction of a Reactive Index Adjustment based on actual default reactive power prices? Do you agree with the form of this adjustment as presented here?*

A35. As indicated in previous Centrica responses on this topic we believe it would be reasonable to implement an appropriate form of Reactive Index Adjustment. Consistent with previous responses on this topic, we would prefer an index based on identified key driver rather than one based on historic default Reactive power prices.

Q36. *Do you feel at this stage that there is a case for any additional adjustment terms to be introduced at this stage?*

A36. As indicated in previous Centrica responses on this topic we do not believe there is a case for any additional adjustment terms to be introduced at this stage.

Q37. *Do you believe that National Grid should include an allowance for fault outage costs within the constraint forecast? Do you agree with the level set?*

A37. As indicated in previous Centrica responses on this topic we do not believe an allowance for fault outage costs within the constraints forecast should be allowed. If fault outage costs are deemed to present a material unpredictable risk then it should be considered under the Income Adjusting Event (IAE) process.

Q38. *Do you agree that Transmission Losses should remain bundled with the other components of BSIS, excluding constraints?*

A38. As indicated in previous Centrica responses on this topic, yes.

Q39. *Do you agree that the Transmission Losses Reference Price should remain a fixed value for the duration of the scheme?*

A39. We believe it would be appropriate for NGET to consider setting an ex ante within year shape for the TLRP or alternatively setting it formulaically to link for example to prevailing outturn wholesale prices.

Q40. *Do you agree with the criteria used to develop the incentive scheme design? If not, what additional points should be considered?*

- A40. The criteria listed by NGET in Paragraph 605 of the Consultation appear broadly appropriate. However, instead of referring to the “mean” or “central” forecast we think it would be more appropriate to set a baseline target reflecting the “modal” view of SO external costs.
- Q41 *For the unbundled constraints scheme, do you agree with the parameters used? If not, what parameters should be implemented? Please explain your rationale for any changes.*
- A41. As previously stated Centrica does not believe an unbundled scheme is appropriate. As such we have no comment to make on this issue.
- Q42. *Do you agree with the implementation of two single year incentive schemes for all balancing costs except constraints? Do you agree with the parameters used? If not, what parameters should be implemented? Please explain your rationale for any changes.*
- A42. As previously stated Centrica does not believe an unbundled scheme is appropriate and that the current single year incentive schemes should be retained. We have no further comment to make on this issue.
- Q43. *Do you agree with the parameters used for the one year fully bundled scheme? If not, what parameters should be implemented? Please explain your rationale for any changes.*
- A43. We are pleased that NGET feels sufficiently confident in its forecasts for 2010/11 costs to propose increased sharing factors and caps and collars. However insufficient information has been provided in relation to the 2010/11 forecast Incentivised Balancing Costs (IBC) for us to be able make a detailed informed comment on the appropriateness of the deadband adopted (e.g. how was £992m as the upper limit of deadband selected) and cap and floor proposed (i.e. on what basis were -/+£20m selected). In addition we believe that there is a lack of information and justification to explain the basis on which the asymmetric sharing factors were determined as well as the (higher) sharing factors. In general, as these reflect NGET’s forecasts and we are aware from Ofgem’s letter published on 30 November that Ofgem is concerned regarding the accuracy of NGET forecasts; we would anticipate that it would be appropriate to adopt: (a) A deadband starting from a lower point than that indicated; (b) symmetry of sharing factors and the caps on the upside and downside of the deadband.

Q44. *Do you agree with the development of a two year fully bundled incentive? How should the constraint cost forecast for year two be included in the incentive target e.g. agreed post scheme or some form of constraint forecast developed pre-implementation?*

A44. As indicated in previous Centrica responses on this topic, and as previously stated in this submission, Centrica does not believe an unbundled scheme is appropriate and does not support its introduction. As such we have no comment to make on this issue.

Q45. *Do you agree with the scheme options presented here for implementation from April 2010 and what is your preferred option? If not, please provide an explanation as to why and any alternatives that you would like to see developed.*

A45. Centrica's view is that the current form of bundled single year SO incentive scheme should be retained. As such we have no further comment to make here.

Q46. *What impacts will a change in incentive scheme structure and consequential changes to the BSUoS data have on your IS systems?*

A46. Where changes in the incentive scheme structure purely impact on the values of existing data items/parameters our Information Systems (IS) need to handle there is no impact. However, clearly where additional data items/parameters are introduced by changes in the incentive scheme structure then this will have an impact on Centrica's IS.

Q47. *If your systems will be impacted by a change to scheme structure what information will you require and in what timescales in order to accommodate the change?*

A47. Where changes in the incentive scheme structure require changes to Centrica's IS, the timescales required to accommodate these changes will clearly affect the nature and volume of the changes being implemented. As such it is difficult to say with certainty at this stage what the impact would be. Meaningful changes could, however, easily require 6 month lead times for implementation of Centrica IS changes (including necessary testing). As a general principle we would require detailed information of exactly what changes will arise in data flows at the earliest opportunity in order to be able to instigate and implement changes to Centrica IS in an efficient and timely manner, complying with the accepted timescales for industry changes.

Q48. *Do you have any comments regarding the information provided within this consultation?*

A48. In general, we welcome the level of information NGET has provided within this Consultation document and within the wider consultation process in relation to forward SO Incentive schemes for 2010/11 and potentially beyond. Nonetheless, as a natural consequence of its GBSO role and the information it retains, NGET remains in a position where it has significantly greater understanding of the detail of SO costs than other industry players to a greater or lesser extent. Thus we would welcome further information disclosure to the maximum extent possible where this enables other industry parties to better provide an informed opinion regarding future levels of SO costs and the appropriateness of future SO incentive scheme parameters. We have highlighted some specific instances above where we felt further information would have been helpful in order to enable Centrica to provide a fully informed opinion on questions raised in this Consultation.

Q49. *Do you have any comments regarding this consultation process? What improvements would you like to see in future years?*

A49. We welcome the open and consultative approach adopted by NGET within this SO consultation process and their active engagement with industry stakeholders. As indicated above we would welcome any further information which can be made available to help industry parties better understand the details of SO cost forecasts and proposed SO Incentive scheme parameters.