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Dear Malcolm,

System Operator Incentives for 1 April 2010

Following the publication, on 15th December 2009, of the “Development of Constraints Forecast 2011/12” addendum we noted the direct, and material, linkage to numerous questions arising from the “Initial Proposals Consultation” (issued on 5th November 2009). We have therefore taken the deadline for the addendum (of 22nd December 2009) as being the deadline for responding to the consultation.

The late provision of this second year constraint data (with such a short time to respond – less than seven days) has, in our view, materially harmed our ability to respond to this consultation.

Given that many people have started their Christmas holidays last Friday (18th December) we fear that you will receive very limited responses, especially on the matter of the costs of constraints over two years. Were NGET, and Ofgem, to rely on this flawed consultation process to decide and implement a two year incentive regime (covering 2010/11 and 2011/12) then it would be a travesty and call into question the whole approach to the SO Incentive consultation process. The implications etc., of such a fundamental change (from a one to a two year regime) requires more consultation etc., than the mere seven days afforded here.

In terms of the details, as you will have gathered from our recent telephone conference, our main area of interest is in the forecast cost of constraints. This is therefore the focus of this response. We have provided responses to the questions where relevant, but would initially like to make the following comments.

Level of Constraint Forecast compared to 2009/10

The forecast for constraint costs for 2009/10 made by NGET at this time last year was £307m. NGET's latest forecast is that it will outturn at some £206m, some 67% of the original forecast. Scotland constraint costs started at £242m and are now forecast at £151m only some 62% of the original forecast. It would seem therefore that the NGET forecast for 2010/11, of GB constraint costs of £477m is likely to come down, and if like last year would come down to an outturn of some £320m. Scotland's constraint cost would similarly come down, for 2010/11, to a pro-rate level of £180m (rather than £290m).

Summer outage programme

It has been stated by NGET that the greatest constraint costs appear during the summer outage months, yet the level of these GB constraint costs through the summer of 2009 (April to October) has only actually been some £107m. Allowing a further £15m for November 2009 and £15m for March 2010 (based on £107m divided by 7 months equals ~£15m per month on average) would suggest a total constraints costs, for 2009/10, of some £137m for the year during the outage period. It is not clear therefore to us where the costs of the other ~£69m (£206m less £137m) comes from for NGET's forecast outturn constraint costs (for 2009/10).

If the £206m is 'correct' it implies that the cost of constraints, over the three remaining winter months (December 2009 – February 2010), will be in the order of ~£23m per month (£69m divided by 3) which is significantly higher than the levels so far experienced (in 2009/10) for the summer outage period (at circa £15m per month – see above). This we find very hard to believe, and it suggests that the base level of constraint costs is substantially less than the latest NGET forecast level of £206m.

Inconsistency in approach

There also seems to be an error in the way that the split of these costs have been used in the document. In paragraph 454, £209m is quoted as the scheme forecast for Scotland for 2009/10. To this is added some £81m as the additional costs that will be incurred due to increased generation, a larger outage programme etc. to give the total, for 2010/11, of £290m for all Scotland.

However as noted, the latest forecast is only some £206m for the whole of GB, split in NGET's "Historic and Forecast Balancing Services Incentive Scheme Costs" to £151m for Scotland. We do not believe it is appropriate to base the forecast for next year (2010/11) on the forecast that was made a year ago, ignoring the actual outturn costs over the summer of 2009 and the latest forecast for constraint costs for 2009/10.

In addition, instead of using a scheduling model, NGET base their forecast on historic levels, plus Monte Carlo simulation to create the generation running pattern. However, it also appears that the historic pattern is modified (to what NGET believe will happen) by removing 2008/09 data as during this period they had contracted constraint management services. We do not believe it is appropriate to ignore (in the 2010/11 forecast) the contacting arrangements that NGET put in place in 2009/10.

Level of New Wind Generation

We believe that the level of wind farm connections, in the forecast, is significantly too high. We have been led to believe that the assumption made by NGET is that some 99% of the generation coming on is located in Scotland, some 1200MW. We do not believe that this level of wind generation due to connect is realistic.

For 2010/11, NGET's latest forecast of TNUoS charges (Information Paper – 5 year forecast of TNUoS tariffs – December 2009) only has some 400MW connecting in Scotland, and we believe that even this is too high for the calculation of constraints. Take, for example, a 200MW windfarm coming on mid 2010. For 2010, whilst the first connection may be made in 2010, it will take some 2 years to complete the construction and commissioning of the whole 200MW of generation at that site. This would suggest only some 50MW in 2010. This would reduce the 400MW down to 250MW for 2010/11. However, even using 400MW and pro-rating, the additional costs of new generation would come down from some £43m to some £14m, a reduction of £29m.

Constraint implications arising from Locational BSUoS

We do not comment on the merits or otherwise of the proposed Locational BSUoS (GB ECM 18) change. This is currently the subject of a separate Ofgem Regulatory Impact Assessment consultation, which we will respond to in due course.

We note that, in NGET's stated view, the effects of Locational BSUoS is that constraint costs would decline by between 50-80% (slide 13, from the DECC Grid Access Reform Stakeholder Events 15 October–London 26 October –Glasgow, “National Grid analysis: Locational BSUoS reduces total constraint costs on Cheviot boundary by 50-80%”).

For the avoidance of doubt, if Locational BSUoS (GB ECM 18) were to be implemented on the dates recommended by NGET (1st April 2010) then we would expect an Income Adjusting Event to be raised to ensure that NGET, as SO, does not materially benefit from such a change.

Contracting for Constraint Management Services

There is a clearly a driver for NGET not to enter into contracts whilst discussions are ongoing about the level of the SO Incentive for next year. In addition, the regulatory uncertainty of the potential for Locational BSUoS (GB ECM-18) and CAP 170 to be implemented makes NGET reluctant to contract ahead (they could get the service for nothing). These though create a false impression of what the constraint forecast will be and what NGET will be able to achieve under its incentive scheme. Nonetheless, given the level of contracting NGET successfully completed in 2009/10, we believe that this must be taken account of in the forecast for 2010/11.

Conclusions on level of Constraints in Scotland

There is a range of what the costs of constraints are likely to be in Scotland, which is significantly lower than the £290m being claimed here.

The first is the pro-rate as above, based on the latest forecast outturn costs for 2009/10. This would suggest a level of Scotland constraint costs of £180m.

The second is estimated from the assumption that the forecast of Scotland constraints for 2009/10 is reasonable at £151m (though it does not compare well to the level of costs over the summer outage period) and adding the lower level of costs for additional new generation of only £14m. The additional costs for increased margin and what would appear to be a more onerous outage plant would remain, and this would take the total cost for Scotland to only as high as £203m.

Conclusions on Constraints Forecast

Our total (GB) constraint estimation (using information provided by NGET and for the reasons we outline in our response) based on using the actual data to date for 2009/10 (rather than last year's forecast for 2009/10) is £326m.

This is based on:

- An estimated 2009/10 outturn, for GB constraint costs, of £137m (£107m + £15m November 2009 + £15m March 2010)
- To this we have added an estimated increase of £52m for Cheviot & Scotland (£81m - £29m due to lower wind)
- We have then added in the NGET forecast, for England & Wales constraint costs, of £137m

However, it is clear (for the reasons we outline elsewhere in this response) that this is our upper forecast as it does NOT include the efficient contracting as NGET has, for example, already achieved in 2009/10. From the information available to us, this would suggest that our £326m figure should be even lower.

We hope you find these comments helpful.

Yours sincerely

David Fernie
EMC Manager

1 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

They appear to be.

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

They appear to be.

3 Is historic market length a suitable proxy for future market length?

It would only be suitable if the market conditions were broadly the same. As this is highly unlikely, we believe that instead of NGET basing their forecast on historic levels, plus Monte Carlo simulation to create the generation running pattern it should be using a scheduling model.

Furthermore, it also appears that the historic pattern is modified (to what NGET believe will happen) by removing 2008/09 data as during this period they had contracted constraint management services. This has the effect of increasing costs which are then 'reduced' by NGET (via contracted constraint management services). We do not believe it is appropriate to ignore (in the 2010/11 forecast) the contacting arrangements that NGET put in place in 2009/10.

4 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?

Yes.

5 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?

As we have outlined above, we believe that the level of wind farm connections is significantly too high. We have been led to believe that the assumption made by NGET is that some 99% of the generation coming on is located in Scotland, some 1200MW. We do not believe that this level of wind generation due to connect is realistic.

For 2010/11, NGET's latest forecast of TNUoS charges (Information Paper – 5 year forecast of TNUoS tariffs – December 2009) only has some 400MW connecting in Scotland, and we believe that even this is too high for the calculation of constraints. Take, for example, a 200MW windfarm coming on mid 2010. For 2010, whilst the first connection may be made in 2010, it will take some 2 years to complete the construction and commissioning of the whole 200MW of generation at that site. This

would suggest only some 50MW in 2010. This would reduce the 400MW down to 250MW for 2010/11. However, even using 400MW and pro-rating, the additional costs of new generation would come down from some £43m to some £14m, a reduction of £29m.

In addition to this it is of concern that the level of spill associated with wind is so high (at 28%). We believe that NGET should actively engage, at the earliest opportunity, with wind generators to (a) better understand why this is the case and (b) develop better tools / arrangements etc., for both NGET and wind generators to minimise this spill percentage figure.

6 Do you agree with our base case scenario for NIV? If not, which scenario should be used and why?

7 Are there any other factors or scenarios that you believe should be considered in deriving a NIV forecast?

8 Do you believe that installed wind capacity will increase as indicated? If not, please indicate how you believe the rate will change and why.

For the reasons we outline in response to Q5, we believe that the increase in installed wind capacity (@ 1,200MW) is wholly incorrect.

9 Do you believe that nuclear generation will maintain its current level of availability

Given that we do not operate nuclear generation we are not in a better position, than NGET or operators of nuclear generation, to comment in detail on this.

However, we would observe that the GB nuclear generation fleet is getting older and therefore its level of availability would be expected to decline, rather than maintain its current level, over time.

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

For the reasons we outline in response to Q5, we believe that the increase in installed wind capacity (@ 1,200MW) is wholly incorrect.

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

For the reasons we outline in response to Q5, we believe that the increase in installed wind capacity (@ 1,200MW) is wholly incorrect.

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

For the reasons we outline in response to Q5, we believe that the increase in installed wind capacity (@ 1,200MW) is wholly incorrect.

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

Given that NGET has been forecasting GB demand over many years we are not in a better position, than NGET, to comment in detail on this.

It needs to be recognised that there are uncertainties surrounding the forecast of electricity demand given its significant decline, and potential increase, due to changes in the underlying economic conditions.

That having been said, given the recent comments by the Chancellor, such as those in the Pre-Budget Report; about the timing of (a) the ending of the recession and (b) the commencement of the recovery; is it still appropriate to use the September 2008 to March 2009 demand (during the period when we were entering / in recession) as a proxy for demand in September 2010 to March 2011 (as outlined in paragraph 306 of the consultation)?

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

15 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?

For the reasons we outline in response to Q5, we believe that the increase in installed wind capacity (@ 1,200MW) is wholly incorrect. We therefore do not believe that NGET will be in a position where they are forced to reduce wind generation output at whatever price is prevailing in the BM (though we are sceptical that prices will be as high as suggested in any case).

16 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?

17 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.

Yes. We use Argus as well.

18 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.

Yes. We use Bloomberg as well.

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

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

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

22 Do you agree with the assumptions made in producing a Fast Reserve price forecast? If not, please indicate why not.

23 Do you agree with the assumptions made in producing a Margin price forecast? If not, please indicate why not.

24 Do you agree with the assumptions made in producing a Balancing Services price forecast? If not, please indicate why not.

25 Do you have a view on the future trend of STOR contract prices?

For the reasons we outline in response to Q5, we believe that the increase in installed wind capacity (@ 1,200MW) is wholly incorrect.

Furthermore, it should be noted that, in the longer term, with the growth in output from less flexible generation, such as wind and nuclear generation, the provision of STOR capability is likely to fall on fewer sources of more flexible generation which, in turn, may lead to these plants experiencing increased levels of planned and unplanned outages due to the technical impact of providing this capability more often than (a) they were designed to provide and / or (b) expected to provide. The natural consequence of this is that contract prices will have to rise to cover the increased costs and risks of providing this capability.

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

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

There are a number of reasons why we believe that the background and assumptions made in constructing the constraint volume forecast is flawed.

For the reasons we outline in response to Q5, we believe that the increase in installed wind capacity (@ 1,200MW) is wholly incorrect.

For the reasons we outline in response to Q3, we believe that instead of NGET basing their forecast on historic levels, plus Monte Carlo simulation to create the generation running pattern it should be using a scheduling model.

Furthermore, it also appears that the historic pattern is modified (to what NGET believe will happen) by removing 2008/09 data as during this period they had contracted constraint management services. This has the effect of increasing costs which are then 'reduced' by NGET (via contracted constraint management services). We do not believe it is appropriate to ignore (in the 2010/11 forecast) the contracting arrangements that NGET put in place in 2009/10.

It would appear that NGET do not account for the cost benefits associated with efficient contracting; e.g Capped PN contracts; but instead have forecast BM Bid/Offer spreads which would give the worst case scenario.

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

There a number of reasons why we believe that the background and assumptions made in constructing the constraint volume forecast is flawed. These are outlined in Q27.

In addition, there is a total lack of transparency surrounding the way that NGET calculates constraint costs. For example, the way that replacement margin is derived; in terms of the volume of headroom 'lost' (was it all available?) and then its 'replacement'; is denied to market participants. NGET needs to actively engage in fully opening up this process.

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

We do not agree with the methodology used to forecast the second year of a two year scheme.

First, for the reasons outlined above we do not accept the approach used by NGET to produce the one year forecast as we believe there are inherent flaws in the methodology.

Second, if the approach were to be adopted then we would expect, inter alia, that the cost in the second year would decline (as NGET, for example, contracts over two years not one). The fact that this does not appear to happen implies that, based on the evidence provided here by NGET, it is currently neither economic or efficient to have a two year scheme.

Third, if there were to be a two year scheme it is not clear to us how the performance (of NGET) in the second year (2011/12) would be assessed, and what incentive payment would be made to NGET.

There are currently a number of significant changes that could materially affect the cost of constraints in 2011/12 (such as Locational BSUoS, 'connect & manage' via DECC's TAR etc.,). Leaving the determination of the 2011/12 SO Incentive

arrangements until next year would ensure that these changes are reflected, correctly, into the 2011/12 scheme.

Furthermore, if the NGET incentive scheme was based on (a) the (two year) November 2009 forecast ('X') for 2011/12 then what happens with the (one year) forecast produced in November 2010 ('Y') for 2011/12? What is certain is that the forecast, and thus the incentive, on NGET, set by 'X' will be different to the forecast and incentive determined by 'Y' even though both are for the same year (2011/12). How is this 'conflict' to be reconciled?

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

For the reasons we outline in response to Q29, we believe that there are a host of flaws with a two year incentive scheme. These need to be taken into account if a robust two year scheme is to be taken forward. Given the timescales we do not believe that a two year scheme should be introduced.

31 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?

On the evidence presented by NGET we can see no benefits in a two year scheme. It would seem, from the consultation documentation, that the costs, in the second year, are up. In our view the inherent benefits of a longer term scheme should see costs, in the second year, decline as NGET contracts for longer periods. The evidence, from NGET, to the contrary clearly demonstrates that it would be wrong to implement a two year scheme at this time.

On the basis that a two-year scheme for constraints is not implemented, we believe that the existing scheme (i.e. 1 year bundled) should be rolled forward.

32 Do you agree that there is a misalignment in internal and external SO incentives caused by different scheme durations?

It is an inherent fact that without a five year forecast / SO incentive arrangement that the internal and external SO incentives will be misaligned. We note the statement issued by Ofgem yesterday (21st December 2009) that it will extend the current Transmission Price Control for a further year to 2013.

Notwithstanding our comments above; about the flawed approach etc., for both the one and two year schemes; this one year extension, by Ofgem, would seem to imply that if the intention is to align the internal and external SO Incentive schemes that it should be to three years. This we would find totally unacceptable.

A more charitable solution would be for NGET to accept the change in timescales afforded by yesterday's announcement from Ofgem and use the period between now

and November 2010 to develop (in conjunction with stakeholders) a far more robust approach for a two year scheme, which could be brought forward this time next year (for implementation in April 2011 covering 2011/12 and 2012/13).

33 What option could or should National Grid use to develop a 2 year constraint forecast?

Given the huge uncertainties surrounding constraints at the moment we doubt anyone, including NGET, is in a position to forecast, with any degree of certainty, constraint costs for one, let alone, two years out.

Furthermore, as we note above, given the very poor history of NGET's forecasting of constraint costs for even one year we are not convinced of the wisdom of a two year forecast (with associated incentives, which, as we note in Q29, could be in 'conflict' with each other).

34 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?

As we have noted elsewhere in this response, we have serious reservations about the one year incentive scheme. We also detail above the fundamental drawbacks associated with a two year scheme. Given this we find the arguments suggested in section 4.6.2 to be wholly insufficient to justify a two year incentive scheme being implemented via these two consultation documents.

35 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?

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

37 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?

We do not accept the need for an allowance for fault outages. There is an existing method for addressing these, if they arise (via an Income Adjusting Event).

Having an 'allowance' means a less economic and efficient approach will be followed as funds will be tied up (within the SO Incentive scheme) to take account of something that might happen, rather than, in all probability, will happen. This will, for example, need to be reconciled the following year (if the 'allowance' has not been 'used' because no appropriate fault outage costs arose).

Furthermore, including an 'allowance' might lead to a perverse incentive on NGET as it would know it has this is 'in the bag' (if a fault outage cost arose) rather than the

case with an Income Adjusting Event, where it has to justify to stakeholders (who can respond, at the time, to Ofgem) and the Authority what it has done. This is a useful element in the 'checks and balances' that NGET should operate under.

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

We are mindful of the (BSC) Modification P229 (both original and alternative) and whilst, even if approved, it would be unlikely to be implemented prior to April 2011 the effect of this needs to be taken into account in any longer term SO Incentive scheme.

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

See our answer to Q38.

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

41 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.

We do not believe that it should be unbundled.

42 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.

We do not agree with the implementation of two single year schemes for all balancing costs except constraints for the reasons we outline above; including (a) that the process for determining the SO incentive for one year, let alone two, is flawed and (b) how 'conflicts' between different incentive schemes (for the same year) are reconciled.

43 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.

We believe that NGET should continue with the current 2009/10 methodology, including the current 'cap & collar' sharing factors (both % and £Ms).

44 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?

As we have noted above, we do not agree with the implementation of a two year scheme for the reasons we outline above; including (a) that the process for determining the SO incentive for one year, let alone two, is flawed and (b) how 'conflicts' between different incentive schemes (for the same year) are reconciled.

45 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.

Whilst it is helpful to see the options available, we believe, given the huge uncertainties surrounding (a) demand (given its significant decline, and potential increase, due to changes in the underlying economic conditions) (b) the potential implementation of significant regulatory changes (such as the DECC TAR changes, expected in June 2010) that there is just far too much uncertainty surrounding energy balancing in 2010/11 (as well as 2011/12) for us to have any confidence in the forecasts, especially of constraints, presented here.

This, coupled with the recent history of NGET's past forecasting of these matters, leads us to conclude that the current scheme arrangements, in terms of 'caps & collars' and sharing factors, should remain for 2010/11 and that there should not be a multi-year incentive scheme put in place at this time.

It would, in our view, be perverse in the extreme to incentivise NGET for more than one year given these fundamental market changes. In our view, much, if not all, the incentive could be 'achieved' by NGET via:-

- 1) these market changes rather than by its own actions as SO; and
- 2) by 'business as usual' activities, such as, contracting for the same services etc., that it has done during 2009/10 in 2010/11 (and beyond).

In addition to this we are mindful that a number of new derogations (over and above the Cheviot boundary derogation) are being contemplated (perhaps including the Thames Estuary, Grendon-Staythorpe and within Scotland). For the avoidance of doubt, the application for / receipt of a (transmission) derogation is, in our view, a 'business as usual' function for the TOs and SO. NGET should not be receiving an SO Incentive Scheme benefit from the granting of any new derogations.

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

47 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?

48 Do you have any comments regarding the information provided within this consultation?

We note the total lack of time afforded, in particular, to the “Development of Constraints Forecast 2011/12” addendum. This was published on 15th December 2009 with a response required by 22nd December 2009. As we have noted in our covering letter if NGET, and Ofgem, rely on this flawed consultation process to decide and implement a two year incentive regime (covering 2010/11 and 2011/12) then it would be a travesty and call into question the whole approach to the SO Incentive consultation process.

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

We have outlined, in our answers to the questions above, a number of significant improvements in the process which we commend to NGET.