

## Appendix C - Consultation Questions

National Grid invites responses to this consultation by 10 August 2012. The responses to the specific consultation questions (below) or any other aspect of this consultation can be provided by completing the following proforma.

Please return the completed proforma to [soincentives@nationalgrid.com](mailto:soincentives@nationalgrid.com)

<b>Respondent:</b>	Garth Graham
<b>Company Name:</b>	SSE
<b>Does this response contain confidential information? If yes, please specify.</b>	No.

No	Question	Response (Y/N)	Rationale
1	Do you agree with the proposed approach to modelling the voltage constraints experienced since the commencement of the current scheme?		[The Pro Forma appears to limit the number of word we can submit to this consultation – we have therefore placed our comments at the end. ]
2	Do you have any suggestions as to how we could better model these effects on the transmission system?		
3	Do you agree with the proposed approach to reassess generation availability as an ex post rather than an ex ante input to the Constraint model and that it serves to increase Constraint model accuracy?		
4	Do you have any suggestions as to how we could better model generation availability on an ex ante basis?		
5	Do you agree with the proposed changes to the methodology statement in relation to boundary flow model setup errors?		
6	Do you agree that Ofgem are best placed to audit and approve these changes in future?		
7	Do you have any comments on the proposed changes to the modelling methodology for Interconnectors availability?		
8	Do you agree that moving Interconnector flows to an ex post input is appropriate and provides a more accurate modelling methodology?		

No	Question	Response (Y/N)	Rationale
9	Do you agree that this clarification should be made to the modelling methodology?		
10	Do you agree with the proposed changes to the modelling methodology that allow us to detect and seek amendment to material differences in generator running patterns compared to model forecasts?		
11	Do you agree with treating commissioning generation as an ex-post input for a period of 6 months while the generator undertakes its commissioning programme?		
12	Do you agree with our proposal to change these optimiser settings?		
13	Do you agree with the approach that Ofgem oversee and approve any future optimiser setting amendments?		
14	Do you agree that if a market participant submits erroneous data in error that we should have the ability to remove the error such that the target cost remains unaffected?		
15	Do you agree with the approach that Ofgem oversee and approve these changes?		
16	Do you consider that there is value to the industry from publication of BSIS model outputs e.g. modelled MWh per BMU versus actual BMU output?		

The 2011-13 Balancing Services Incentive Scheme (BSIS) (“current scheme”) Methodology Consultation 12<sup>th</sup> July 2012

Thank you for the opportunity to respond to this consultation.

We recognise that National Grid (as NETSO) have the right, indeed an obligation to review the methodologies for the modelling of constraint costs. However, we have some concerns that the number of significant changes raised undermines the basis of constraint cost estimation and management. There are eight headings of identified issues, some of which have more than one issue. The supposed existence of such a significant number of issues that need to be in the modelling suggest that the overall methodology is not robust and cannot provide a basis for the industry to manage recovery of these escalating costs. There has to be an incentive on National Grid to produce a robust model for the benefit of the industry and customers and to meet their wider licence obligations for operating economically and efficiently. Allowing such a number of significant changes to be made to the model within the current scheme incentive period effectively undermines any incentive on National Grid to

get the modelling right for the current scheme. In this case, the current scheme period is two years. The proposals from 2013 are that the incentive scheme should be 8 years duration (although a 4+4 format). If changes are permitted to the current two year incentive scheme, retrospectively, does that mean that a precedent is set for the 8 year period, such that there would be no permanence or stability in constraint costs for the whole of the 8 year (or 4+4) period(s).

There is an industry and customer expectation and an entitlement that National Grid's modelling is robust and accurate. As noted below\* in Ofgem's letter of 19 July 2011, Ofgem at that time accepted what was considered a minor change with a "very small effect on constraint costs". We do not believe that the changes highlighted in this current scheme consultation document have a small effect on constraint costs individually or more so in aggregate. The proposed July 2012 changes suggest an increase in target constraint costs of £118m, which cannot be considered insignificant.

In the previous forms of the SO incentive schemes, National Grid's forecast of constraints and hence their target would have been adjusted only for material unforeseen events through an Income Adjusting Event process. In our view, only one of the issues identified in the consultation document would fall into that category, that of the Moyle failure. It might equally be reasonable to allow for manifest errors, of which there appear to be two: the Boundary flow error where the direction of flow was set in the wrong direction, and the commissioning generator assumptions on availability and pricing (at -£99,999).

However, the other issues are more minor, and are attributable to poor non-robust modelling and assumptions on the operation of the system by National Grid at the outset. For example, in relation to voltage constraint modelling, the issue has been highlighted by National Grid as attributable to system voltage issues not having any historical precedent. We do not believe that just because there may have been no history of voltage support requirements at the levels now found that it should not have been beyond National Grid to forecast a requirement for voltage support in Scotland or the South of England; e.g. at Grain; given the level of constraints and work that is going on on the network to reinforce these areas. It should have been forecastable and as such capable of being allowed for in their model. It is also noted that at the recent Operational Forum, National Grid indicated that they have constraint costs in relation to voltage support under control, compared to 2011/12, which suggests that the level of the target (+£70m) increase proposed by National Grid is not justifiable.

We said in our response to Ofgem's June 2011 consultation that given it is a completely new scheme format, that it should only be put in place for a single year until it is proved robust. Clearly this first attempt at modelling of constraint costs has not proved to be robust and we should not be rolling this out to longer incentive periods until it has been proved to be so.

As a result of the shortfall in National Grid's modelling capability witnessed in the July 2012 consultation document this has undermined our confidence in a longer term BSIS in the short to medium term. In our view there should be a return to the shorter SO incentive scheme periods; i.e. a single year, rather than two (or more) years; until market confidence (in National Grid's modelling capabilities) is restored.

Further significant factors also pointing to a shorter, rather than longer, BSIS period in the short to medium term are the substantial market changes that are currently under development; including (a) DECC's EMR, (b) Ofgem's Cashout SCR and (c) the European (ENTSO-e / ACER / European Commission / Member States) Network Codes.

Each of these three changes, on their own, could impact dramatically on the cost items / issues covered (currently) in the BSIS arrangements. To set a greater than one year BSIS period, after this current scheme, at this time of substantial uncertainty could, we fear, lead to both inefficiencies and perverse incentives on the NETSO over that longer period.

For example, at yesterday's ENTSO-e meeting on the Demand Connection Code (see Annex 1 below) there was a presentation on a new mandatory requirement that would allow TSO's (like the NETSO) to access autonomous system frequency control capability associated with temperature devices at no cost (to the TSO). Clearly the introduction of such a capability (via European Law) will significantly, and materially, impact on the 'active' system frequency management by the NETSO in the medium to longer term. Given this proposed change (by the European TSOs, including National Grid) there would need to be a corresponding reduction in the BSIS with respect to managing system frequency over the medium / longer term.

This is one example – however, there are numerous other examples within the suite of European Network Codes currently being developed including:-

- i) Requirement for Generator ('RfG') Connection;
- ii) Capacity Allocation & Congestion Management ('CACM');
- iii) Demand Connection Code ('DCC');
- iv) Operational Planning & Scheduling;
- v) Operational Security;
- vi) Load Frequency Control & Reserves; and
- vii) Balancing.

Collectively, and individually, it is anticipated (not just by ourselves but by National Grid, ENTSO-e, ACER, the European Commission and the Member States (including DECC for GB)) that these European Network Codes will substantially alter the way the European TSOs (like the NETSO) perform their role. The deliberate changing of a variety of activities (such as system frequency control) from being a competitively obtained services (with the associated BSIS arrangements for the NETSO) to more mandated requirements must, therefore, lead to a corresponding reduction (or indeed, removal) of that element from the BSIS over time as these items / issues are no longer 'actively' managed by the NETSO.

*\* On 8 July 2011, NGET consented to the licence modifications proposed. NGET has also completed the verification of the accuracy of the proposed constraint cost modelling calculations. This verification process has resulted in one minor change being made to the methodology used to determine the Constraint\_Cost\_Target. This change concerns the way in which the ex-post fuel prices are represented. We consider this change is an improvement and note that it has a very small effect on constraint costs.*

## **Demand Side Response – Autonomous Round table discussion**

Introduction to discussion session on DSR [Demand Side Response] SFC [System Frequency Control]

[slide 3]

1. What types of DSR services are we focused on?

Demand being moved in time based on deviation in system frequency

2. Who are the likely users for these services, and who benefits?

TSOs are users to maintain system frequency

All users benefit from optimised balancing services costs, in what is expected to be a rapidly expanding market and increased security of supply

3. What is the capability the NC DCC is asking for?

Autonomous controlled factory/installer fitted control to advance/defer demand  
temperature controlled devices proportional to deviation in system frequency

4. Are the needs for these services reducing or growing?

BIG INCREASES EXPECTED, in some countries soon (2015) but in most others post 2020 / 2025

Main drivers for increase

Impact of large scale expansion of RES

Forecast Errors in energy

Loss of conventional generation plants and hence system services

[slide 4]

5. What types of demands are expected to be suitable?

Industrial, commercial, domestic temperature controlled devices – Fridges, Freezers, Heat pumps, Air Conditioning, etc

Ensure primary purpose of device i.e. Heating and cooling is protected and only thermal hysteresis store is utilised – consumer impact negligible

6. How is it envisaged that this will be used?

Autonomous measurement and response at users internal point of connection of device

7. Will this be specified in this code?

Partly, the NC DCC only deals with CAPABILITY as per FWGL

8. Why is this capability proposed as becoming mandatory?

Service provides greatest socio-economic benefit in this manner

Every consumer has these devices hence ultimately everyone will contribute

Multiple versions for sale introduces undesirable complexity and is uneconomic

Bureaucracy of customer metering/billing/communication/etc increases costs of alternatives