Summary of Meeting and Actions

Meeting Name	Frequency Response Working Group
Meeting No.	3
Date of Meeting	Monday, 30th March 2009
Time	10:00am – 2:00pm
Venue	Conference Room 8, National Grid House, Warwick

This note outlines the key action points from the third meeting of the Frequency Response Working Group.

1) Apologies for Absence

Apologies were received from Raoul Thulin (RWE), Rob Rome (British Energy), John Welsh (Scottish Power), Ian Foy (Drax Power) and Jonathan Ayteo (GDF Suez)

2) Minutes from Previous Meeting

The draft minutes of the Grid Code/BSSG Frequency Response Working Group meeting held on 29th January 2008 were approved and are accessible from the National Grid Code Website

3) Review of Actions

The data provided to National Grid in order to understand the technical characteristics and capability of the different types of plants are being processed and will be circulated to the group in due course.

Action: National Grid

It was agreed that the terms of reference for the Working Group would be circulated to members.

Action: TI

During the second meeting, the Working Group queried the validity of the 'Global Tensions' scenario given the political, commercial and operational changes that would have to be instigated for it to occur. Members also queried some the figures allocated for the 'Global Tensions', especially when the data was compared to the 'Business As Usual' and 'Gone Green' scenarios. Members agreed to articulate their comments to NGET, who would make the necessary enquiries and report back to the group.

Action: Industry participants

National Grid to confirm whether comments had been received and communicate any resulting actions.

Action: TI

4) Working Group Discussions

JE agreed to review the costing model previously delivered by David Scott before his departure from the UK.

Action: JE

The working group discussed the scenario models presented by MP, relating to various level of Frequency Response provision and different generation backgrounds. The scenarios included:

- Responsive Generation with no Demand Management
- Responsive Generation with Demand Management
- Responsive Generation and 1800MW loss to keep Frequency > 49.2Hz
- All plants containing the same response time at 2 sec and inertia with H=5

The Working Group noted that the existing Grid Code requirements ensured that the system was planned, maintained and operated within the relevant technical obligations. It was also discussed whether the grid code should include inertia which may reduce the cost associate with Frequency Response by slowing the required speed of response.

All to confirm (with MP) whether data provided relating to the compatibility of specific types of generation is suitable for Working Group circulation.

Action: All

A working group member questioned what broad assumptions National Grid was making associated with the cost of constraining off/ on the different generation classes under scenario 3.1. MA stated that the methodology needed to be developed. The current cost of Frequency Response was stated to be around £200m p.a. and the question that the Working Group must be able to answer is by how much this cost would increase if Frequency Response obligations were eased. This could then be compared with the cost avoided by the industry by reduced obligations. A Working Group member agreed stating that the cost to the UK as a whole must be considered and not just system operation costs. Consequently assumptions must be carefully made and recorded.

A Working Group member expressed concern that it would be difficult to produce accurate financial information regarding the investment cost associated with improving/ providing frequency response. Ofgem confirmed that an assessment of both categories of cost must be considered during the Authority's decision making process.

It was felt that neither National Grid nor the Working Group currently has full visibility of the cost of FR provision but it must be discovered and in addition a forecast for the cost in the future also must be considered.

Working Group members to provide investment cost estimates for the existing level of Frequency Response provision, as specified in the Grid Code, for future generating plant.

Action: All

The Working Group discussed whether the effect of diversity of wind has an effect on the SQSS model. CM to investigate whether wind pattern data can be distributed amongst working group

Action: CM

It was stated that current wind generation units have an approximate four second delay to their response. National Grid confirmed that such a delay is a potential problem for system operation. Further work is required to investigate the cause of the longer response lag. Initial discussions suggested that it may be a combination of both the control systems and hydraulic systems. A Working Group member stated that improvements from wind units have to be driven through market pressure.

The Working Group agreed that Scenario 4 (generation all has the same response, h=5 after a 2 second lag) was similar to the application of the current Grid Code obligations.

It was identified that there is a reliance on current metering capability for any potential change to requirements associated with frequency response.

The principles behind two high level solutions were discussed; set frequency response obligation for all machines sufficient to ensure adequate response provision or to set the requirement lower and develop a market to allow the required response to be provided by other generators. MP will inform the group of a suitable requirement to ensure system security by end April.

Action: MP

MA to contact Paul Plumptre (National Grid) to determine the assumptions and the commercial basis on which the proposed increase to the maximum permitted instantaneous loss (e.g. 1800MW) was made.

Action: MA

The Working Group also discussed that National Grid could own and operate Frequency Response plant on behalf of generation. A working group member suggested that other parties may also be interested in providing such a service.

DMcC expressed concern that providing frequency response may shorten the life of wind turbines. WH believed that there is likely to be ways in which performance could be provided without such risk.

There are no current obligations concerning the provision of inertia although the Working Group felt that obligations may be required in the Grid Code as its provision does have an inherent value in delaying the need for response provision. Such value should be discovered in a potential market. A Working Group member stated the value of inertia was backed up in a recent study, increasing the case for its consideration.

A high-level summary of some of the solutions was made and TI took the action to write up and circulate for comment.

Action: TI

6) Next Meeting

It was agreed that the next meeting of the Working Group would be scheduled for 16th June 2009, commencing at 10am at National Grid House, Gallows Hill, Warwick.

Appendix 1 – Working Group Attendance

Members Present:		
Tom Ireland	TI	Working Group Chairperson
Kabir Ali	KA	Technical Secretary
Malcolm Arthur	MA	National Grid
Stephen Curtis	SC	National Grid
Mark Perry	MP	National Grid
William Hung	WH	National Grid
Mark Baker	MB	Scottish Power
Chris Hastings	CH	Scottish and Southern Electricity
Claire Maxim	CM	E.ON
Damian McCool	DM	Scottish Power Renewables
John Norbury	JN	RWE
Chris Proudfoot	CP	Centrica
Dan Jerwood	DJ	GDF Suez
James Evans	JE	British Evans
Bridget Morgan	BM	Ofgem
Mike Chowns	MC	RWE NPower
Bob Nicholls	BN	E.ON
Apologies:		
Jonathan Atyeo	JA	GDF Suez
Ian Foy	IF	Drax Power
Rob Rome	RR	British Energy
Raoul Thulin	RT	RWE
John Welsh	JW	Scottish Power (DNO Representative)