

**Balancing Services Standing Group
Interconnector Frequency Response Working Group
Minutes from Meeting 3rd February 2010**

Attendees

Present

David Smith (DS), National Grid – Chair
Bushra Akhtar (BA), National Grid - Technical Secretary
Neil Rowley (NR), National Grid – IC Frequency Response Proposal Lead
Simon Tweed (ST), Eir Grid (teleconference)
Mark Lane (ML), Eir Grid (teleconference)
Rodney Doyle (RD), Eir Grid (teleconference)
Paul McGuickin (PM), Moyle Interconnector (teleconference)
John Lucas (JL), Elexon
Raoul Thulin (RT), RWE
Claire Maxim (CM), EON UK
Simon Lord (SL), First Hydro Company (teleconference)
Hannah Morgan (HM), National Grid, Network Operations
Rob Smith (RS), BritNed (teleconference)

Apologies

Simon Mcveigh (SM), National Grid, Interconnector Frequency Response
Garth Graham (GG), SSE
Mark Pearce (MP), National Grid, Business Development

1. Introductions

The Working Group attendees introduced themselves. DS went over the agenda for the day and fire drill.

The group were advised of the updated minutes emailed from the last meeting and were asked for any comments. The group had no further comments and the minutes were approved.

2. Interconnector Frequency Response Presentation

NR ran through the format of the presentation, aims and objectives and ran through the four key issues that were to be discussed.

Issue 1: Does the CUSC facilitate interconnectors (IC's) to provide FR?

NR went through the Owner Model and the problem of there being no references to IC's within the relevant CUSC sections.

RS asked whether there were any existing DC converters that will not be obliged to provide Frequency Response (FR). NR responded that as both

Moyle and IFA were completed pre 2005, neither IC would be obligated to provide FR. RS also asked whether we should explicitly define an IC?

Action – NR to examine whether the Grid Code, in effect explicitly defines an IC

NR commented that the Mandatory Service Agreement (MSA) uses the Grid Code defined variable – deload. ICs are not presently included within the deload definition. NR suggested that rather than create a new variable specifically for IC, a Grid Code Modification that extended the deload definition to include IC would be the best solution. RS responded that a definition for deload would need a registration point. NR responded that deload is normally based from registered capacity.

CM asked if there were any limitations on ICs providing frequency response as a result of being prohibited from trading energy. NR opened the question up to the IC representatives. PM replied that currently they are unable to trade electricity.

RT commented that provisions exist to deal with imbalance on the interconnector and that an interconnector owner can presently be exposed to cash out.

Action: NR to obtain a legal view on whether ICs are prohibited from providing FR

User Model:

NR suggested that the User model would be problematic and involve significant code changes in order to implement. Specific issues described included; the potential administrative burden on National Grid from individual Mandatory Service Agreement (MSA) for all IC Balancing Mechanism Units (BMU), Structural changes required to the MSA to accommodate the necessary apportioning of the total FR volumes to the individual BMU, the principle point that user BMU have no control over the delivery of the service and therefore how can they be held accountable for the service, and what about non physical trading parties who may not want to provide such a service?

RS supported this approach. RT thought there could potentially be some competitive benefits from the user model. RT also believed that some of the points outlined could be over come. RS asked how the model actually worked. This led to the discussion that even with the user model it was the asset owner that would have to provide the service, therefore making this model more like a variation of the owner model. It was also noted that the asset owner could contract with its users to provide the service which in turn would deliver a variation of the user model. Finally, it was noted that the obligation to provide mandatory FR clearly sat with the interconnector owner.

CM asked whether bids and offers could be used on an Interconnector. DS responded that SO-SO trades are similar to Bids and Offers.

DS summarised that the user model may work but had a number of issues and since the obligation on to provider mandatory FR was clearly on the interconnector operator it was suggested to progress on the basis of the Owner Model. This would also clearly meet the terms of reference for the working group.

CM suggested that the Grid Code should consider reviewing the IC FR obligations. CM further explained that at the time of development the focus was on Power Park Modules. HM pointed out that IC's are different therefore needed to develop a solution which was intrinsically different.

DS reminded the group that they were tasked with resolving the commercial provision of FR and that the group needed to be mindful of the introduction BritNed. DS proposed to develop the Owner Model as this would fulfil the terms of reference of the group and the suggestions made to consider alternative options at a later date should be clearly stated in the working group report for CUSC Panel consideration.

In order to address action 2 from the last team meeting NR ran through and clarified the obligations on IC's.

Action: NR to find out how the DC Converter FR obligation relate to Offshore and Power Park Modules?

NR explained to the group a potential problem with the provision of FR from ICs under the current models. Specifically, the Grid Code FR obligations are at the DC Converter level where as the service is proposed at the 'station' level. Potentially there could be multiple DC Converters per 'station'. To avoid over allocating volumes to the provider, National Grid must know exactly what the headroom and footroom is available on each Converter. NR suggested that the problem is some what hypothetical as at the moment there is no IC obligated to provide FR either connected or scheduled to be connected with multiple DC Converters. The group briefly discussed whether it was necessary to change the BMU to per DC converter. The group noted the issue and agreed that no action should be taken at this time.

Action: NR to work up the legal text solution under the Owner Model for Issue 1

Issue 2: FR and Settlement

JL ran through his presentation on BSC arrangements for FR. The group asked how this would work with an Owner Model. JL responded the only complexity with the Settlement System was having two separate BM Units which need to decide which BM works. JL discussed the problem of which BMU to allocate FR volume to in terms of either done by National Grid or by Elexon (variant 1 and 2 within the presentation), and also outlined the pros and cons of each variant. The group agreed that solutions to both variants should be worked up. JL briefly mentioned the solution under the User model,

however given the previous thoughts on this model, this was not discussed further.

Action: Elexon and National Grid to work up solutions to the respective variants .

Issue 2: National Grid FR calculated Volumes

NR described the variables used by National Grid to calculate FR volumes for existing providers. As some of these variables are not currently available for ICs possible alternatives were discussed. Two options were outlined, either National Grid use the existing variables available or change the Grid Code to obligate IC to provide MEL and SELs. HM asked if it would be worth trying to find an equivalent to a PN, MEL and SEL or look at a programme to find another reference. DS suggested the possibility of a K factor similar to that used for CCGT's. NR responded that a K factor could not be used as IC's have infinite possible load factor varieties therefore would not be appropriate.

Action: NR to work up solutions to both options, Grid Codes to obligate IC to provide MEL/SEL and National Grid using existing variables.

Action 4: NGIL were to talk through how imbalance volumes are allocated to IC users, specifically those associated with Transmission Losses, but have given apologies. NR therefore asked the other IC representatives if they wanted to explain to the group how imbalance charges work.

RS kindly volunteered to speak about the IFA model. In this model a fixed loss factor is applied and allocated to the Users, i.e. the User may for example purchase 100MW of capacity and nominations of flow. However, applying the fixed loss factor could result in 98MW being allocated to the User the other end. RS when on to explain that the difference between actual interconnector losses and the total of the fixed allocation on Users is then picked up by the Interconnector Error Administrator

Issuer 3: are the CUSC payment Methodologies appropriate for IC Providers?

RS and PM presented their responses to the question of whether the payment methodology is appropriate to ICs, specifically the response energy price.

NR opened up the discussion to the rest of the group. RT provided the group with the background as to why the current arrangements are as they are. In summary, RT explained that the industry desired an individual pricing mechanism but that National Grid at the time could only accommodate a common price mechanism. RT further explained that the mechanism was not designed to meet the fuel price, and that in terms of ICs it is a matter of degrees of risk. RT further commented that if National Grid can now manage different response energy prices for different users this would be welcome.

Action: National Grid to confirm if reasons why a separate response energy price cannot be submitted are still valid.

DS suggested that there was not clear reason why an interconnector should be differentiated to other users in terms of the response energy price and, as such, it might be best that any proposed changes on this topic be as an alternative modification (once the modification is raised) or as a separate modification.

Post meeting note from RT sent 1st March 2010:

Although it does not change the minutes, I have refreshed my memory with regard to the current energy payments mentioned under issue 3 in the minutes, that were introduced through CAP107. There were two Working Group Alternatives proposed as alternatives to the original. The first of these proposed using SSP and SBP as the payment rates for high frequency response and low frequency response respectively. The basis for this being that the system prices reflected the marginal value of energy on the system and were therefore appropriate for energy delivered when providing response. The second Working Group Alternative proposed a spread around the Market Index Price to serve as a less volatile proxy for SSP and SBP. The multipliers of 1.25 and 0.75 were decided upon for best meeting the two criteria of acting as a proxy for the system prices and giving a net neutral outcome for total energy payments.

The Amendment Report can be found at:

http://www.nationalgrid.com/NR/rdonlyres/E76A9469-D3CF-4894-BAAB-87D0E9121563/9392/CAP107_FinalARv20WITHOUTLEGALTEXT_v6.pdf

Paragraphs 4.2 on page 9 and 4.7 on page 11 are particularly relevant.

Whilst this should not fetter any proposals that the group may develop, it is perhaps useful to be aware of the considerations that led to the current arrangements being introduced.

Issue 4: What if there are mandatory FR requirements by both system operators?

NR explained that he believed that the only issue of Grid Code compliance arising from mandatory FR both sides is that the codes states IC must be either in Frequency Sensitive Mode or Limited Frequency Sensitive Mode. To avoid this situation, it may be necessary to have a third category allowing an IC to response to frequency deviations on the other system.

CM pointed out that the small Energy FR Working Group reported high incidence of High Frequency. Need to be sure that full FR can be provided for.

National Grid had an action to update on the control arrangements. HM advised that there was nothing to report back as yet, work is on going.

However control room arrangements will be in place to allow FR instruction to occur.

NR went through next steps: To focus on developing the Owner model. NR asked if it was ok to draft the solution to which the group agreed.

The group agreed to start working on a proposal and to deal with the legal text afterwards.

The group were advised of the next meeting on 3rd March.

3. BSSG Terms of Reference (TOR)

DS ran through the general BSSG TOR which were last updated Nov 2006.

HM asked the question what the IC Operator falls under?

Action: National Grid to add IC owners to the TOR.

DS went over the scope and objectives of the TOR. Specifically DS discussed the inclusion of commercial balancing services in the TOR. Specifically this was to allow an industry discussion on constraint cost information provision. SL accepted it was beneficial to have a place to discuss commercial balancing services but did not feel it was appropriate to place this under CUSC governance. The group discussed this further and it was suggested a new group could be set up that met on the same day as BSSG but had a separate TOR, specifically which did not place governance under CUSC. Following the discussions, the following actions were agreed.

Action: DS to take out reference to the Commercial Balancing Services standing Group and set it up as a new group not under the CUSC.

Action: DS to include Maximum Generation Services in the BSSG TOR.

Action: Once the new TOR is drafted DS to prioritise workloads for the BSSG Group.

4. AOB

No AOB