

Interconnector Frequency Response Working group – Meet 3

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Aims

- ◆ Discuss each work strand
- ◆ Agree preferred options (where required)
- ◆ Discuss next steps
- ◆ Agree group output

Recap

- ◆ Issue 1: Does the CUSC facilitate interconnector's (ICs) to provide Frequency Response (FR)?
- ◆ Issue 2 Would ICs be disadvantaged through the settlement process by providing FR?
- ◆ Issue 3 Are the CUSC Payment Methodologies appropriate for IC providers?
- ◆ Issue 4 What if there are mandatory FR requirements by both system operator?

Issue 1: Does the CUSC facilitate interconnector's (ICs) to provide Frequency Response (FR)?

- ◆ Last time it was agreed that focus would turn to developing CUSC legal text
- ◆ Principles;
 - ◆ Appropriately reference DC Converters – technology and the correct provider of the service
 - ◆ Equal treatment
- ◆ The proposed solution would also requires a Grid Code (GC) change
 - ◆ Deload does not include ICs within the GC definition
- ◆ Next steps
 - ◆ Legal text will be circulated by Monday 19th March for group comment

Issue 2 Would ICs be disadvantaged through the settlement process by providing FR?

- ◆ Topic 1 – How would the BSC assign FR volumes
- ◆ Draft modification proposal
 - ◆ Provider wishes to be assigned FR volumes how do you get the volume to the right account?
 - ◆ Interconnector Error Administrator (IEA) at any particular settlement period could have volumes assigned to either there Production or Consumption account depend on the imbalance direction

Issue 2 Would ICs be disadvantaged through the settlement process by providing FR?

- ◆ Option 1 – NG determine account to assign the volumes
- ◆ Pros
 - ◆ Would not necessarily require BSC change
 - ◆ BSC is silent on whether ABSVD can be assigned to the IEA
 - ◆ NG can resubmit ABSVD up to final reconciliation
- ◆ Cons
 - ◆ Additional NG and IEA processes
 - ◆ IEA responsible for checking their own settlement data
 - ◆ Potentially additional costs incurred on NG and the IEA
- ◆ Option 2 – Settlement Administrator Agent (SAA) automatically assigns
- ◆ Pros
 - ◆ Robust approach
 - ◆ In line with treatment of other providers
 - ◆ Should be a relatively minor change
- ◆ Cons
 - ◆ BSC Modification required
 - ◆ Cost incurred for the change
- ◆ Option 2 is the recommended route
- ◆ Comments on the draft BSC Proposal due by Monday 19th March
- ◆ Following that, implementation costs will be investigated

Issue 2 Would ICs be disadvantaged through the settlement process by providing FR?

- ◆ Topic 2 – How would National Grid calculate FR volumes?
- ◆ Last time we discussed at a high level that NG utilises MEL, SEL and PNs to calculate FR volumes for service providers and that IC do not submit MEL and SEL.
- ◆ We outlined 2 solutions;
 1. Informal route - use existing variables and knowledge about the IC capabilities
 2. Formal route – enact a GC change to obligate the provision of MEL and SEL

Topic 2 – How would National Grid calculate FR volumes?

◆ Informal Route – Details within an operational agreement

◆ Pros

- ◆ Individual arrangements can be catered for
- ◆ No GC amendments required
- ◆ No additional obligations are placed on the IC
- ◆ No duplication of parameters

◆ Cons

- ◆ Not transparent (does it need to be?) capacity already known.
- ◆ IC owner is not directly in control of the prescribed cap and collar (again do they need to be – trying to max available capacity)

◆ Formal Route – Through the Grid Code

◆ Pros

- ◆ Consistent treatment between providers
- ◆ IC Owners directly controls the parameters
- ◆ Provides transparency

◆ Cons

- ◆ Amendment required
- ◆ Extra obligations on IC Owners
- ◆ Could be viewed as duplicating obligations
- ◆ Only dealing with Frequency Response

Next Steps

Action 1 – NR to examine whether the Grid Code, in effect explicitly defines an IC

- ◆ FR requirements – DC Converter
 - ◆ DC Converter – any Onshore or Offshore DC Converter
 - ◆ Onshore – Onshore after 1st April 2005 used to convert alternating current to direct or vice versa. Standalone operative configuration. (IC)
- ◆ DC Converter Station – 1+ Onshore DC Converters, connecting DC to NGET Transmission System, or User System, and shall form part of the External Interconnection
 - ◆ External Interconnection – Apparatus for the transmission of electricity to or from NETS to an External System or vice versa.
 - ◆ External System – relation to Externally Interconnected System Operator out of the National Electricity Transmission System Operator Area

Action 3 - NR to find out how the DC Converter FR obligation relate to Offshore and Power Park Modules?

- ◆ DC Converter – any Onshore or Offshore DC Converter
- ◆ Offshore DC Converter – Any User Apparatus located Offshore used to convert alternating current electricity to direct current electricity, or vice versa. Is a standalone operative configuration at a single site comprising one or more converter bridges, together with one or more converter transformers, converter control equipment essential protective and switching devices and auxiliaries, if any, used for conversion
 - ◆ Offshore generation other PPM – wave, PV etc.
 - ◆ PPM covered specifically

Action 2 - NR to obtain a legal view on whether ICs are prohibited from providing FR

- ◆ National Grid does not believe that IC are prohibited from providing FR
 - ◆ View that IC are Transmission System Operators
 - ◆ Responsible for managing flows across there system and taking account of the interconnected systems
 - ◆ Responsible for ensuring a secure, reliable and efficient electricity system and, in the context, for ensuring the availability of all necessary ancillary services