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
 - 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 Appartus located Offshore used to convert alternating current electricity to direct current electricity, or vice versa. Is a standalone operative configuration at a single site comprisining 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

