



CAP169 04/06/09

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# CAP169 Agenda

- ◆ Review of actions
- ◆ Review of WG consultation responses
- ◆ Discussion of part 3 drafting (CUSC and Grid Code)
- ◆ Discussion of drafting for WGAA1 (CUSC and Grid Code)
- ◆ Assessment of original and alternative proposals
- ◆ Voting on original and alternatives
- ◆ Way forward / timescales

# Actions from last meeting

1. **Governance for “Methodology Document for the Aggregation of Reactive Power Metering”**
  - ◆ Management of changes in 2007
  - ◆ Investigate possible governance
2. **Revise Grid Code on basis of discussion**
  - ◆ Reflecting communication from generator is clearly DNO restriction and not capability restriction
3. **Revise WGAA1 on basis of discussion**
  - ◆ Full payment for initial 12 months of operational restriction
  - ◆ 12 months within a specified non-consecutive period
4. **All to review and provide comments**
5. **Consultation to be prepared and circulated for comment**
6. **Paper for Grid Code Review Panel to be prepared**

# WG Consultation Responses

## 1. BWEA

- ◆ No comment on merit of the proposals
- ◆ Noted that dynamic and steady state requirements are not necessarily the same

## 2. RWE Npower

- ◆ Supports WGAA2 on the basis that parts 1 and 2 facilitate efficient procurement of reactive power
- ◆ Part 3 does not deal with the obligations on the generator to maintain capability and introduces potential pricing anomalies

## 3. Edf Energy

- ◆ Does not support the original or alternatives
- ◆ Notes that whilst CAP169 proposes a solution to align the CUSC and Grid Code, it introduces a new defect in relation to Embedded Power Stations
- ◆ Additional costs incurred in the procurement of additional reactive power from alternative units
- ◆ Introduces potential price anomaly

# WG Consultation Amendment Request

- ◆ This request proposes that where a 3rd party restriction exists (preventing the embedded unit providing the service in accordance with National Grid instruction) £0 (zero) payment should be made
- ◆ Under such circumstances National Grid would not be permitted to issue instructions to the unit
- ◆ The proposer considers that this proposal is more appropriate than WGAA1 and the original which could:
  - Distort competition by providing an artificially low cost service to National Grid (in preference to those not under restriction)
  - Increase the BSUoS costs paid by other parties
- ◆ As such the proposer considers that this alternative resolves the original defect identified by CAP169 without introducing a new perverse defect

## Part 3 Definitions – Original (connection only)

### Reactive Despatch Network Restriction (Grid Code and CUSC)

- ◆ A restriction placed upon an Embedded Generating Unit, Embedded Power Park Module or DC Converter at an Embedded DC Converter Station by the Network Operator which prevents the Generator or DC Converter Station owner in question (as applicable) from complying with any Reactive Despatch Instruction with respect to that Embedded Generating Unit, Embedded Power Park Module or DC Converter at an Embedded DC Converter Station, whether to provide zero Mvars at the Commercial Boundary or to provide Mvars over the full range referred to in CC6.3.2

### Pre-Connection Reactive Despatch Network Restriction (CUSC only)

- ◆ With respect to any Embedded Generating Unit, Embedded Power Park Module or DC Converter at an Embedded DC Converter Station, a Reactive Despatch Network Restriction notified to The Company pursuant to the Grid Code prior to the Commissioning Programme Commencement Date for such Embedded Generating Unit, Embedded Power Park Module or DC Converter

# Part 3 Communication – Original (connection only)

## Communication from generators

- ◆ PC.A.3.2.2 amendment to point (f)
  - via Generator Performance Chart
- ◆ OC2 Appendix 1
  - Additional lines on Generator Performance Chart

## Communication from Network Operators

- ◆ PC.A.3.2.2 amendment to point (c)
- ◆ DRC Schedule 11
  - Addition to Connection Point Data to communicate Reactive Despatch Network Restriction

# Part 3 Drafting – Original (connection only)

## CUSC

- ◆ Schedule 3
  - Application of 20% payment in appendix 1 and appendix 2 (until further notification is received)



# WGAA1 – connection and operational

## Temporary Enduring Reactive Despatch Network Restriction (CUSC only)

- ◆ With respect to any Embedded Generating Unit, Embedded Power Park Module or DC Converter at an Embedded DC Converter Station, a **Reactive Despatch Network Restriction (not being a Pre-Connection Reactive Despatch Network Restriction)** which either:
  - a. **Has been in place at the relevant time for more than 12 consecutive months;** or
  - b. **When combined with any one or more previous Reactive Despatch Network Restrictions** (including for the avoidance of doubt any Pre-Connection Reactive Despatch Network Restriction) has affected the relevant Embedded Generating Unit, Embedded Power Park Module or DC Converter for **an aggregate period of more than 12 months in any consecutive 24 month period**

## **CUSC Schedule 3 point (e)**

- ◆ Amended from original to cover both Pre-Connection and Temporary Enduring restrictions

# WGAA1 Communication

## Communication from generators

- ◆ BC2, Appendix 3
  - Submission of revised Mvar data, with an additional tick box to notify of Reactive Despatch Network Restriction

## Communication from Network Operators

- ◆ BC1.6
  - Extension of existing provisions to allow communication of restriction lasting more than 1 operational day

# Vote on alternatives

- ◆ WG Consultation included details of draft WGAAAs (8.17.11)
- ◆ For the purposes of the WG report a WGAA is:
  - believed by the **majority of the Working Group** or by the **chair of the Working Group** to better facilitate the Applicable CUSC Objectives than the Amendment Proposal **or** the current version of the CUSC (*Definition WGAA*)
- ◆ WG Consultation Amendment Request:
  - believed by the **majority of the Working Group** or by the **chair of the Working Group** to better facilitate the Applicable CUSC Objectives than the current version of the CUSC (8.17.15)
- ◆ Therefore, a view on the WGAAAs and WGCAR is required:
  - Against the applicable CUSC objectives
  - As to which best meets the applicable CUSC objectives

# View against CUSC objectives

- a) The efficient discharge by Licensee of the obligations imposed upon it by the act and the Transmission Licence; and
  - b) Facilitating effective competition in generation and supply of electricity and facilitating such competition in the sale, distribution and purchase of electricity
- ◆ Initial discussion in last WG (and recorded in WG consultation)

# National Grid view on applicable objectives - original

## Original - Applicable objective (a)

- ◆ Ensuring that National Grid can despatch Reactive Power from Power Park Modules, and Large Power Stations, and facilitate payment for this service - increasing the pool of potential providers of Reactive Power and resulting in increased stability and Transmission system security
- ◆ Ensuring alignment of the CUSC and the Grid Code
- ◆ Ensuring appropriate remuneration through ensuring full payment is made only in instances where full access to the service is available for the purposes of Transmission system operation, whilst partial payment (reflecting the Grid Code obligation and associated dynamic benefits) is made when embedded connection conditions introduce restrictions on instruction to 0 Mvar. Thereby ensuring the system is operated and managed in the most economic and efficient manner

# National Grid view on applicable objectives - WGAAAs

## WGAA1 - Applicable objective (a)

- ◆ Same benefits as original
- ◆ Additional benefit in facilitating appropriate remuneration for both connection restrictions and long term operational restrictions

## WGAA2 - Applicable objective (a)

- ◆ Ensuring that National Grid can despatch Reactive Power from Power Park Modules, and Large Power Stations, and facilitate payment for this service - increasing the pool of potential providers of Reactive Power and resulting in increased stability and Transmission system security
- ◆ Ensuring alignment of the CUSC and the Grid Code
- ◆ May lead to uneconomic and inefficient use of the transmission system (through paying for a service that cannot be utilised)

# WG Initial consideration of CUSC objectives

## With regards part 3, differing views on impact of CAP169 on objective (b) applying to original and WGAA1:

- ◆ Potential for NG to choose to instruct a generator under restriction within the restricted range (receiving a 20% payment) as an alternative to a generator for which full payment would be made (due to differential rates introduced)
- ◆ However, some felt the 20% payment is in fact more favourable to some generators with the full capability available which are instructed to 0 Mvar on a continual basis

# Way forward

<b>June 1st</b>	<b>Close of WG consultation</b>
<b>June 4th</b>	<b>CAP169 WG meeting</b>
<b>June 9th</b>	<b>WG report circulated for comment <i>(for minimum 5 BDs)</i></b>
<b>June 16th</b>	<b>Close of comment on WG report</b>
<b>June 18th</b>	<b>CUSC Papers Day</b>
<b>June 26th</b>	<b>CUSC Panel</b>

- ◆ Are we in a position to meet the June deadline?
- ◆ WG Report can be circulated for a period of 3 business days if all WG members agree (8.17.19c)
- ◆ Way forward with Grid Code?