



CAP169 06/05/09

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Today

- ◆ Review of actions
- ◆ Discussion of proposed drafting for original
 - CUSC and Grid Code
- ◆ Discussion of alternatives proposed
- ◆ View against applicable CUSC objectives
- ◆ Proposed implementation date(s)
- ◆ WG Consultation
- ◆ Timeline

Actions from last meeting

1. **Governance for “Methodology Document for the Aggregation of Reactive Power Metering” – VERBAL UPDATE**
2. **Impact of CAP169 on EDL/EDT software – VERBAL UPDATE**
3. **Comments on legal text – SEPARATE AGENDA ITEM**
4. **Impact of a new embedded generator on existing embedded generators – ACTION PETER TWOMEY**
5. **Development of alternatives – SEPARATE AGENDA ITEM**
6. **View on possible alternative – removal of steady state reactive capability requirement for embedded generators under restriction – VERBAL UPDATE**
7. **Consider Grid Code changes – SEPARATE AGENDA ITEM**
8. **Determine additional Grid Code obligations for generators with MSAs – VERBAL UPDATE**

Drafting CAP169 original

The drafting for part 2

- ◆ Schedule 3, 2.8ii and Schedule 3, Appendix 6 (1.2)

The drafting for part 3

- ◆ Schedule 3, Appendix 1 (new point 2e)
- ◆ Schedule 3, Appendix 2 (new point 2e)
- ◆ Definition of Network Operator, Constrained Reactive Despatch Restriction and Reactive Despatch Restriction

All other drafting relates to part 1

Part 3 Corresponding Grid Code

- ◆ Definitions

- Constrained Reactive Despatch Instruction (new definition)
- Reactive Despatch Restriction (as defined in the CUSC)

- ◆ PC.A.3.2.2 additional point (d)

- To facilitate Network Operator communication

- ◆ PC.A.3.2.2 additional point to (g)

- To facilitate generator communication

- ◆ Amendment to DRC Schedule 11

- ➔ PC the best place:

- ➔ Network Operators are already required to provide information regarding Constrained Capacity (relating to MW)
- ➔ Facilitates communication from both generators and Network Operators in the same place
- ➔ Can be applied upfront prior to connection

Additional Grid Code change – BC2 Appendix 3, Annexure 2

REACTIVE POWER CAPABILITY AT GRID ENTRY POINT (ENGLAND AND WALES) OR HV SIDE OF RELEVANT TRANSFORMER (SCOTLAND) OR USER SYSTEM ENTRY POINT (IF EMBEDDED) of the Power Park Module

BM Unit No.

<u>TABLE B</u>	MW	LEAD (Mvar)	LAG (Mvar)
AT RATED MW			
AT 50% OF RATED MW			
AT 20% OF RATED MW			
AT BELOW 20% OF RATED MW			
AT 0% OF RATED MW			

Discussion of alternatives proposed

Recap on WGAAAs

- ◆ WG Consultation to include details of any draft WGAA (8.17.11)
- ◆ These WGAAAs will be finalised after consultation (8.17.18)
- ◆ Following this the view of the WG will be sought in terms of whether it is believed that the WGAA(s) better facilitate objectives than the Amendment Proposal or current version of the CUSC (*Definition WGAA*)

Draft WGAA1 – Long term restrictions not known at time of connection

- ◆ Extending part 3 of the original CAP169 to cover operation restrictions lasting longer than 12 months
- ◆ National Grid would consider that these are long term restrictions and should be considered in the same way as permanent connection conditions
- ◆ 12+ month period:
 - likely to be as a result of the reconfiguration of the DNO network and the embedded connection to the network (rather than a short term temporary operational restriction)
 - Begins to impact on multiple outage years
- ◆ Based on:
 - Full payment until 12 months is exceeded, with 80% clawed back subsequently and 20% applying until notice of removal of restriction is received
 - Specific notification of 12+ month restriction until notice of removal of restriction is received
 - May be a non-consecutive 12 month period in the event that the restriction is temporarily removed

Draft WGAA2 – Parts 1 and 2 of CAP169

- ◆ On behalf of the WG National Grid has drafted the proposed WGAA2
- ◆ Containing parts 1 and 2 of CAP169 (as defined in the Amendment Proposal) with part 3 removed

View against CUSC objectives

- ◆ As part of the WG Consultation it is necessary to record any initial views of the WG as to whether implementation of CAP169 (the original and any alternatives) would better facilitate the applicable CUSC objectives of:
 - 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

National Grid view on applicable objectives

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

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

Proposed Implementation Date

- ◆ National Grid proposes an implementation date 3 months after an Authority decision
- ◆ This will allow all required MSAs to be prepared prior to implementation

WG Consultation

- ◆ To contain (8.17.11):
 - Issues which arose in the WG discussions
 - Details of any draft WGAAs
 - Date proposed by the Company for the implementation of the Amendment Proposal and draft WGAAs
- ◆ As defined in the ToR a 2 week period has been set for the CAP169 WG Consultation

Proposed Timetable – CUSC and Grid Code

<i>May 6th</i>	CAP169 WG meeting
<i>May 15th ?</i>	Launch of WG consultation (2 weeks)
<i>May 29th ?</i>	Close of WG consultation
<i>June 1st?</i>	CAP169 WG meeting (as required to assess consultation responses)
<i>June 8th</i>	WG report circulated for comment (for minimum 5 BDs)
<i>June 15th</i>	Close of comment on WG report
<i>June 18th</i>	CUSC Papers Day
<i>June 26th</i>	CUSC Panel

<i>w/c May 18th</i>	Paper submitted to GCRP (or earlier if possible)
<i>May 21st</i>	GCRP