

CAP169: Provision of Reactive Power from Power Park Modules, Large Power Stations and Embedded Power Stations

Amendments Panel Recommendation Vote, 30th October 2009



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CAP169 Summary

- ◆ Proposed by National Grid February 27th 2009
- ◆ Seeks to introduce a number of changes to the Reactive Power provisions within the CUSC, split into three parts:
 - ◆ Power Park Modules (PPMs)
 - ◆ Large Power Stations
 - ◆ Embedded Power Stations
- ◆ The proposal was developed in Working Group for a period of five months, including a period of Working Group consultation
- ◆ Consultation by the Company was for a period of three weeks, to which four responses were received

CAP169 Part 1 – Power Park Modules

- ◆ Grid Code previously amended to incorporate reactive capability requirements from PPMs
- ◆ Corresponding changes in CUSC have not yet been introduced
- ◆ CAP169 seeks to introduce additional referencing to Reactive Power from PPMs and appropriate capability tables within the Mandatory Services Agreements (MSAs)

Comments

- ◆ The Working Group agreed with the principles and proposals of part 1
- ◆ Company consultation responses:
 - ◆ Merit against the applicable objectives
 - ◆ A sensible alignment of the CUSC and Grid Code
 - ◆ Would allow a greater pool of providers and facilitate greater competition in the provision of such services

CAP169 Part 2 – Large Power Stations

- ◆ Currently National Grid is only “obliged” to conclude or amend MSAs if the Reactive Power capability of the Generating Unit is 15Mvar or more – equating to approximately 45MW
- ◆ This does not cover all categories of Large Power Stations, which have the obligation to provide a Reactive Power Service
- ◆ CAP169 proposal seeks to amend the obligation whereby National Grid is obliged to conclude a MSA on request from a Large Power Station with a reactive capability below 15Mvar

Comments

- ◆ Working Group agreed part 2 offers a proportionate solution
- ◆ Company consultation responses:
 - ◆ Would allow a greater pool of providers and facilitate greater competition in the provision of such services
 - ◆ Merit against the applicable objectives
 - ◆ Proportionate response

CAP169 Part 3 – Embedded Generators

- ◆ Some embedded generators are under connection conditions from the DNOs which prevent despatch instructions from National Grid through 0 Mvar
- ◆ Such restrictions result in National Grid being unable to instruct the relevant generator to achieve economic and efficient use of the Reactive Power across the transmission system
- ◆ The Proposed Amendment seeks to facilitate partial payment (20%) to generators under such connection conditions, reflecting:
 - ◆ The Grid Code requirement and dynamic benefit from those under restriction
 - ◆ That it is not possible for National Grid to despatch Reactive Power from such generators to 0 Mvar in line with system operation requirements

CAP169 Part 3 – Working Group Discussion

- ◆ Mostly focussed on payment terms, views including:
 - ◆ Suggestion that the most appropriate means would be for the DNO to pay
 - ◆ The existing 20% payment aims to incentivise generator to remove restrictions (which is not possible for third party restrictions)
 - ◆ 20% payment may introduce pricing anomalies
 - ◆ Embedded generators get other benefits and should not be paid at all

CAP169 Working Group Alternative Amendments

- ◆ WGAA1 - put forward by National Grid
 - ◆ Looks to extend the original to cover long term operational reactive despatch restrictions (as well as connection restrictions)
 - ◆ Covering a restriction in place for 12 months or more (which could be consecutive or non-consecutive within 24 months)
- ◆ WGAA2 - put forward by National Grid on behalf of the Working Group
 - ◆ Parts 1 and 2 of CAP169, with part 3 removed
- ◆ WGAA3 - put forward by EDF ENERGY
 - ◆ Proposes 0 payment to embedded generators with any form of reactive despatch restriction (both operational and connection)
 - ◆ Under such conditions no despatch instruction would be given by NGET

CAP169 Part 3 - Comments

- ◆ One respondent supported **WGAA3**
 - ◆ Existing 20% payment is intended for other purposes
 - ◆ Payment should be 0 to prevent distortion of competition
- ◆ One respondent saw merit in **WGAA1 and WGAA3**
 - ◆ Recognising that WGAA2 does not remove exposure to inappropriate Reactive Power payments

CAP169 Part 3 - Comments

- ◆ One respondent supported **WGAA2**, and cautiously supported **WGAA1**
 - ◆ Implementation of part 2 may increase the issue part 3 seeks to address
 - ◆ Recognises concerns with potential pricing anomalies – if part 3 is implemented it may be useful to use the BSSG to monitor the effects
- ◆ One respondent supported **WGAA2**
 - ◆ Existing 20% payment serves as incentive to resume full capability
 - ◆ Part 3 could result in a cheaper alternative for National Grid
 - ◆ WGAA3 would reduce the options available to National Grid and therefore not better facilitate competition

Working Group Vote

- ◆ At the Working Group meeting on June 4th 2009 five members of the Working Group (of the seven eligible to vote) voted:

View against Applicable CUSC Objectives	Better than baseline	Not better than baseline	Best
Original	2	3	0
WGAA1	2	3	2
WGAA2	3	2	2
WGAA3	1	4	1

- ◆ The CAP169 Working Group had an observer in attendance at all meetings, from a DNO. The observer's view was that the 20% payment in the original and WGAA1 seem appropriate, with WGAA3s proposal of 0 payment not recognising the dynamic contribution made to the networks

Proposed Implementation Date

- ◆ Implementation is proposed three months after an Authority decision, in order to allow all MSAs which require amendment to be prepared
- ◆ The Working Group agreed that the proposed implementation date seemed reasonable
- ◆ One respondent to the Company consultation commented on the proposed implementation date, stating that it appears reasonable

Impact on other documentation

Grid Code

- ◆ Revision to the Grid Code is required in relation to part 1 and part 3 of CAP169
- ◆ The Working Group was joint between the CUSC and Grid Code to allow these changes to be considered in parallel
- ◆ A separate Grid Code consultation has been conducted on the changes proposed

Methodology for the Aggregation of Reactive Power Metering

- ◆ CAP169 requires minor changes to the metering methodology document
- ◆ These were discussed in the Working Group and included in the consultations (Company and Working Group) with no comments received

Vote on Applicable Objectives