

Stage 04: Code Administrator Consultation

Connection and Use of System Code (CUSC)

CMP199 Reactive Despatch Network Restrictions

What stage is this document at?

01	Initial Written Assessment
02	Workgroup Consultation
03	Workgroup Report
04	Code Administrator Consultation
05	Draft CUSC Modification Report
06	Final CUSC Modification Report

This CUSC Modification Proposal seeks to align the CUSC with the Grid Code to allow payments to generators which have a reactive despatch restriction in place whereby they will be paid accordingly if have been despatched for reactive power by National Grid.

Published on: 12 September 2011
Length of Consultation: 15 Working Days
Responses by: 03 October 2011



National Grid view:

CMP199 should be implemented as it better facilitates Applicable CUSC objective (a) and (b)



High Impact:

Name of Parties impacted



Medium Impact:

Name of Parties impacted



Low Impact:

Name of Parties impacted

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Any Questions?

Contact:

Steve Lam

Code Administrator



Steven.lam@uk.ngrid.com



01926 653534

Proposer:

Steve Lam

National Grid

About this document

The purpose of this document is to consult on the CUSC Modification Proposal set out in this document, with CUSC Parties and other interested industry members. Representations received in response to this consultation document will be included in National Grid's CUSC Modification Report that will be furnished to the Authority for their determination.

Document Control

Version	Date	Author	Change Reference
1.0	12 September 2011	National Grid	Version to the Industry

1 Summary

- 1.1 The implementation of CAP169 Working Group Alternative Amendment 3, and its consequential Grid Code modification E/09, prohibited National Grid from instructing embedded generators which are under a network restriction, to provide reactive services. This had the effect of preventing National Grid from despatching those generators whose reactive capability range was only marginally less than the obligations specified in the Grid Code. This was an unintended consequence of CAP169 as the Ofgem CAP169 decision letter stated that one of the contributing reasons for the approval of WGAA3 was that under the other alternatives, National Grid may not be able to instruct such generators to 0 MVar. Therefore reactive payments would be made even if the reactive services were not aiding system operation. These costs would then ultimately fall to consumers which would not be economical. However, the approval of Working Group Alternative Amendment 3 also impacted embedded generators which could be dispatched to zero but could not provide the full MVar range as specified in the Grid Code, due to the DNO network restriction.
- 1.2 To address this issue, the Grid Code Modification E/11 proposed to allow the despatching of network restricted generators by adding in a new definition of a “Reactive Despatch to Zero MVar Network Restriction” to include only those generators which cannot provide 0 MVar. This is currently with the Authority for a decision.
- 1.3 This CUSC Modification Proposal aligns the CUSC with the Grid Code to allow payments to generators which have a reactive despatch restriction in place whereby they will be paid accordingly if have been despatched by National Grid.

CUSC Modifications Panel View

- 1.4 CMP199 was proposed by National Grid and submitted to the CUSC Modifications Panel for their consideration on 18 August 2011. The Panel determined that the proposal should be sent to the Code Administrator Consultation phase and that they should report back to the CUSC Modification Panel in October 2011.

National Grid View

- 1.5 National Grid supports the implementation of CMP199 as it better facilitates the Applicable CUSC Objectives. This is achieved by facilitating the payment to “restricted” generators for reactive power and therefore prevent discrimination to generators with a deemed restriction, thereby facilitating effective competition.

2 Why Change?

- 2.1 Currently the Grid Code definition for generator Reactive Despatch Network Restriction means that any generator that cannot meet the full reactive range is subject to a network restriction. This includes generators which cannot reach the extremities of the range, i.e. they may only be able to provide 90% of the specified range. As a consequence, National Grid cannot despatch such generators for reactive power, limiting the overall number of generators that can be despatched.
- 2.2 For embedded generators, some may be under a Distribution Network Operator (DNO) restriction, rather than a self imposed restriction which means that they cannot provide the reactive power range specified in the Grid Code.
- 2.3 The result of this is that some Embedded Generators are prevented from providing a reactive service to National Grid within the range the DNO network can accommodate, which may be just short of the Grid Code defined range. This has a consequential effect on maintaining the integrity of the transmission system and could be seen as inefficient as a generator may have the ability to provide a reactive service but is not permitted due to the DNO network restriction.
- 2.4 A proposed solution was initially taken to the Grid Code Review Panel (GCRP) which agreed that it should be developed at the Balancing Services Standing Group (BSSG). The BSSG believed that a change was required to both the Grid Code and CUSC to allow the technical aspects and the commercial aspects of the proposal to be addressed separately.
- 2.5 At the May 2011 GRCP, it was agreed that a consultation should be issued to the industry to propose a new definition of “Reactive despatch to Zero Network Restriction” within the Grid Code. This proposed to limit the definition of a network restriction to only those instances where National Grid cannot despatch generators to 0 MVar. In other words, the network restriction would only apply where National Grid cannot despatch the generator to 0 MVar. The consultation titled E/11 (Reactive Despatch Network Restrictions) was published on 11 July 2011 and closed on 08 August 2011 whereby 3 responses were received which were fully supportive of the modification. E/11 is now currently with the Authority for a decision. The link to the consultation can be found below:
<http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/consultationpapers/>
- 2.6 Currently as the CUSC still refers to the general Grid Code definition of a “reactive despatch network restriction” it prohibits any payments to generators with such restrictions in place. If E/11 is implemented, it will introduce an inconsistency whereby certain restricted generators can be despatched but they would not be paid for the service.
- 2.7 The key defect is that the CUSC definition for reactive despatch network restrictions will not align with the Grid Code definition if E/11 is implemented. This modification proposal does not discuss the merits of whether the despatching of restricted generators should be allowed as this is covered in the Grid Code Modification E/11. By aligning the CUSC with the new proposed Grid Code definition this will then allow payments to be made to generators which can provide zero MVar even if they have a wider Reactive Despatch Network Restriction.

3 Solution

- 3.1 In order to resolve the inconsistency between the CUSC and the Grid Code which would be introduced if E/11 is implemented, CMP199 proposes to align the definition of “Reactive despatch to Zero MVar Restriction”. This will allow payments to generators which do not have such a restriction in place when they have been despatched by National Grid.
- 3.2 Therefore CMP199 proposes to edit the existing CUSC definition of “reactive despatch network restriction” to “reactive despatch to zero MVar network restriction. The actual description of the definition will remain within the Grid Code. As there are several references to the current definition with Schedule 3 of the CUSC, these will also have to be updated. The proposed legal text can be found in Annex 2 of this consultation.

Impact on the CUSC

- 4.1 CMP199 requires amendments to the following parts of the CUSC:
- Section 11 [Interpretation and Definitions]
 - Schedule 3 – Appendix 1
 - Schedule 3 – Appendix 2
- 4.2 The text required to give effect to this proposal is contained in Annex 2 of this document.

Impact on Greenhouse Gas Emissions

- 4.3 The proposer has not identified any material impacts on Greenhouse gas Emissions

Impact on Core Industry Documents

- 4.4 The proposer has not identified any impacts on Core Industry Documents.

Impact on other Industry Documents

- 4.5 The proposer has not identified any impacts on other Industry Documents.

5 Proposed Implementation

- 5.1 National Grid proposes CMP199 should be implemented 10 business days after an Authority decision. In accordance with 8.22.10 (b) of the CUSC, **views are invited on this proposed implementation date.**

6 The Case for Change

Assessment against Applicable CUSC Objectives

- 6.1 The proposer considers that CMP199 would better facilitate the following CUSC Objectives
- (a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence;

Assuming that the Grid Code Modification E/11 will be implemented, this CUSC Modification will ensure that National Grid can facilitate payment for the despatching of network restricted generators. This will increase the pool of potential providers of reactive power and result in increased efficiency by the Company.

- (b) facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity.

The proposal will also ensure appropriate remuneration through ensuring payment is made only in instances where access to the service is available for the purposes of Transmission system operation, whilst no payment is made when restrictions on instruction to 0 MVAR are in place. Thereby ensuring the system is operated and managed in the most economic and efficient manner.

National Grid View

- 6.2 National Grid supports CMP199 as it better facilitates the Applicable CUSC Objectives. This is achieved by facilitating the payment to “restricted” generators for reactive power and therefore prevent discrimination to generators with a deemed restriction, thereby facilitating effective competition.

7 How to Respond

- 7.1 If you wish to make a representation on this Code Administrator Consultation, please use the response proforma which can be found under CMP199 at the following link:

<http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/currencyamendmentproposals/>

- 7.2 Views are invited to the following questions:

1. Do you believe that CMP199 better facilitates the Applicable CUSC Objectives as set out in paragraph 6.1?

2. Do you support the proposed implementation approach?

- 7.3 Views are invited upon the proposals outlined in this consultation, which should be received by **03 October 2011**.

Your formal responses may be emailed to:

cusc.team@uk.ngrid.com

- 7.4 If you wish to submit a confidential response please note the following:

Information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private & Confidential", we will contact you to establish the extent of the confidentiality. A response marked "Private and Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the CUSC Modifications Panel or the industry and may therefore not influence the debate to the same extent as a non confidential response.

Please note an automatic confidentiality disclaimer generated by your IT System will not in itself, mean that your response is treated as if it had been marked "Private and Confidential".

CUSC Modification Proposal Form	CMP199
<p>Title of the CUSC Modification Proposal: <i>(mandatory by Proposer)</i></p> <p>Reactive Despatch Network Restrictions</p>	
<p>Submission Date <i>(mandatory by Proposer)</i></p> <p>18 August 2011</p>	
<p>Description of the CUSC Modification Proposal <i>(mandatory by Proposer)</i></p> <p>This modification proposal is a consequential change from the Grid Code Modification E/11 (Reactive Despatch Network Restrictions) which introduces a new definition of a “Reactive Despatch to Zero MVar Network Restriction” to allow National Grid to despatch such restricted generators providing they can provide zero MVar.</p> <p>This CUSC Modification Proposal aligns the CUSC with the Grid Code to allow payments to generators which have a reactive despatch restriction in place whereby they will be paid accordingly if have been despatched by National Grid.</p>	
<p>Description of Issue or Defect that CUSC Modification Proposal seeks to Address: <i>(mandatory by Proposer)</i></p> <p>Currently the Grid Code definition for generator “Reactive Despatch Network Restriction” means that any generator that cannot meet the full reactive range is subject to a network restriction. This includes generators which cannot reach the extremities of the range, i.e. they may only be able to provide 90% of the specified range. As a consequence, National Grid cannot despatch such generators for reactive power, limiting the overall number of generators that can be despatched.</p> <p>To address this issue, the Grid Code Modification E/11 proposed to allow the despatching of network restricted generators by adding in a new definition of a “Reactive Despatch to Zero MVar Network Restriction” to include only those generators which cannot provide 0 MVar. The consultation for E/11 was published on 11 July 2011 and closed on 08 August 2011 whereby 3 responses were received which were fully supportive of the modification.</p> <p>Currently the CUSC prohibits any payments to generators which are deemed to have a Reactive Despatch Network Restriction in place. By aligning the CUSC with the new proposed Grid Code definition this will then allow payments to be made to generators which can provide zero MVar even if they have a wider Reactive Despatch Network Restriction.</p> <p>The key defect is that the CUSC definition for reactive despatch network restrictions will not</p>	

align with the Grid Code definition if E/11 is implemented. This modification proposal does not discuss the merits of whether the despatching of restricted generators should be allowed as this is covered in the Grid Code Modification E/11.

For information the E/11 consultation can be found on the following link:

<http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/consultationpapers/>

Impact on the CUSC (*this should be given where possible*)

Changes are proposed to the following sections of the CUSC:

- Section 11 – Definitions
- Schedule 3 – Appendix 1
- Schedule 3 – Appendix 2

Do you believe the CUSC Modification Proposal will have a material impact on Greenhouse Gas Emissions? Yes/No (*assessed in accordance with Authority Guidance – see guidance notes for website link*)

No

Impact on Core Industry Documentation. Please tick the relevant boxes and provide any supporting information (*this should be given where possible*)

BSC

Grid Code

STC

Other

(please specify)

Urgency Recommended: Yes / No (optional by Proposer)

No

Justification for Urgency Recommendation (mandatory by Proposer if recommending progression as an Urgent Modification Proposal)

Self-Governance Recommended: Yes / No (mandatory by Proposer)

No

Justification for Self-Governance Recommendation (Mandatory by Proposer if recommending progression as Self-governance Modification Proposal)

Should this CUSC Modification Proposal be considered exempt from any ongoing Significant Code Reviews? (Mandatory by Proposer in order to assist the Panel in deciding whether a Modification Proposal should undergo a SCR Suitability Assessment)
There is currently an SCR on electricity transmission charging under TransmiT which will focus on the options for potential changes to the TNUoS charging Arrangements.

This CUSC Modification Proposal does not relate to this scope of work under the SCR and so should be exempt.

Impact on Computer Systems and Processes used by CUSC Parties: (this should be given where possible)

None

Details of any Related Modification to Other Industry Codes (where known):

Grid Code Modification E/11 has been raised which proposes to add a new definition of a Reactive Despatch to Zero MVAR Network Restriction to include only those generators which cannot provide 0 MVAR. The Modification will be sent to the Authority shortly for a decision. If E/11 is implemented this CUSC Modification Proposal aims to align the CUSC with the new definition of a reactive despatch network restriction from the Grid Code.

Justification for CUSC Modification Proposal with Reference to Applicable CUSC Objectives: (mandatory by proposer)

Please tick the relevant boxes and provide justification:

(a) the efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence

Assuming that the Grid Code Modification E/11 will be implemented, this CUSC Modification will ensure that National Grid can facilitate payment for the despatching of network restricted generators. This will increase the pool of potential providers of reactive power and result in increased efficiency by the Company.

The proposal will also ensure appropriate remuneration through ensuring payment is made only in instances where access to the service is available for the purposes of Transmission system operation, whilst no payment is made when restrictions on instruction to 0 MVAR are in place. Thereby ensuring the system is operated and managed in the most economic and efficient manner

(b) facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity.

This modification will facilitate the payment to “restricted” generators for reactive power and therefore prevent discrimination to generators with a deemed restriction, thereby facilitating effective competition.

These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1

Details of Proposer: (Organisation Name)	National Grid Electricity Transmission Plc
Capacity in which the CUSC Modification Proposal is being proposed: (i.e. CUSC Party, BSC Party or “National Consumer Council”)	CUSC Party
Details of Proposer’s Representative: Name: Organisation: Telephone Number: Email Address:	Steven Lam National Grid Electricity Transmission Plc 01926 653534 Steven.lam@uk.ngrid.com
Details of Representative’s Alternate: Name: Organisation: Telephone Number: Email Address:	Alex Thomason National Grid Electricity Transmission Plc 01926 656379 Alex.thomason@uk.ngrid.com

Attachments (Yes/No):

If Yes, Title and No. of pages of each Attachment:

Annex 1 Proposed Legal Text to the CUSC

Annex 1 - Proposed Legal text to the CUSC

CUSC SCHEDULE 3

APPENDIX 1

7.1.1 **Obligatory Reactive Power Service**

7.1.2 **– Default Payment Arrangements**

Y = 1, except that Y shall be 0 in all **Settlement Periods** from and including that in which the **BM Unit** is affected by a **Reactive Despatch to Zero Mvar Network Restriction** until (and including) the **Settlement Period** in which notification is given to **The Company** pursuant to the **Grid Code** that such **Reactive Despatch to Zero Mvar Network Restriction** is no longer affecting that **BM Unit**

CUSC SCHEDULE 3

Appendix 2

Obligatory Reactive Power Service and Enhanced Reactive Power Services –
Market Payment Mechanism

(e) the **BM Unit** is affected by a **Reactive Despatch to Zero Mvar Network Restriction** until (and including) the **Settlement Period** in which notification is given to **The Company** pursuant to the **Grid Code** that such **Reactive Despatch to Zero Mvar Network Restriction** is no longer affecting that **BM Unit**

SECTION 11

“Reactive Despatch to Zero Mvar Network Restriction”

As defined in the **Grid Code**

CUSC SCHEDULE 3

APPENDIX 1

7.1.3 **Obligatory Reactive Power Service**

7.1.4 **– Default Payment Arrangements**

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CUSC SCHEDULE 3

Appendix 2

Obligatory Reactive Power Service and Enhanced Reactive Power Services –
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SECTION 11

“Reactive Despatch to Zero Mvar Network Restriction”

As defined in the **Grid Code**