

Modification proposal:	Connection and Use of System Code (CUSC) CMP199: Reactive Despatch Network Restrictions		
Decision:	The Authority ¹ directs that this proposal be made ²		
Target audience:	National Grid Electricity Transmission PLC (NGET), Parties to the CUSC and other interested parties		
Date of publication:	15 December 2011	Implementation Date:	3 January 2012

Background to the modification proposal

Some generators connected to a Distribution Network Operator's (DNO) network (embedded generators) are restricted by the DNO in the reactive power services they can despatch. Such a restriction is known in the Grid Code as a Reactive Despatch Network Restriction. Where a restriction applies, both the generator and the relevant DNO must notify NGET of the existence of the restriction³.

In December 2009, the Authority approved an amendment to the CUSC (CAP169 Working Group Alternative Amendment 3) and a consequential Grid Code change E/09⁴ which took effect in March 2010. One impact of these changes was to amend the Grid Code definition of Reactive Despatch Network Restriction. The new definition provided that generators that cannot despatch across the full MVAR range⁵ would be classed as under restriction. As a result, they could not be instructed by NGET to despatch reactive power services to assist it with balancing the National Electricity Transmission System (NETS). This was the case even where the generator's reactive capability range was only marginally less than the obligation set out in the Grid Code.

Some embedded generators operating under a restriction imposed by the relevant DNO may be able to despatch to Zero MVAR outside of the restriction but not across the full MVAR range. As a result, they could have the capability to provide a limited reactive power service whilst operating with the restriction imposed by the DNO. However, in NGET's view, the broad definition of Reactive Despatch Network Restriction in the Grid Code limited its ability to instruct all restricted embedded generation that could assist it with balancing the NETS efficiently and economically. NGET is also unable to pay these generators under the CUSC, proportionate to the metered output of the reactive service they can provide.

To address the Grid Code issue identified above, NGET raised Grid Code change E/11 in November 2010. E/11 was approved by the Authority on 10 October 2011⁶. E/11 amends the definition of Reactive Despatch Network Restriction in the Grid Code. It now

¹ The terms 'the Authority', 'Ofgem' and 'we' are used interchangeably in this document. Ofgem is the Office of the Gas and Electricity Markets Authority.

² This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

³ Grid Code PC.A.3.2.2 (c) (ii) sets out the obligation on the DNO, to be communicated through Data Registration Code (DRC) Schedule 11 (Embedded Generation Data). The obligation on the generator is set out in Grid Code Operating Code (OC) 2 Appendix 1.

⁴ More information about CAP169 is available on NGET's website:

http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/amendment_archive/. More information about E/09 is available on NGET's website:

<http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/consultationpapers/2009/>.

⁵ The steady state tolerance on reactive power transfers to and from the NETS is measured in MVAR (Mega Volt-ampere reactive).

⁶ The Authority's decision on E/11 can be found here: <http://www.nationalgrid.com/NR/rdonlyres/0D2092B2-50A1-425B-9328-B25505D2BD21/49526/E11D.pdf>.

applies to those instances of a DNO network restriction where NGET cannot despatch generators to Zero MVAR. E/11 has introduced a new definition 'Reactive Despatch to Zero MVAR Network Restriction' in the Grid Code to allow those restricted generators able to despatch to Zero MVAR to be instructed by NGET. This approach would avoid the risk identified in the Authority's decision on CAP169 that NGET could instruct the despatch of generators which could contribute to ineffective balancing actions and incur unnecessary additional system costs to other users.

As a consequence of raising E/11, NGET identified that a change would also be required to the CUSC to allow payments to be made to generators who are able to provide a reactive service on instruction from NGET to despatch to Zero MVAR. This would align the CUSC with the Grid Code definition 'Reactive Despatch to Zero MVAR Network Restriction' following the Authority's approval of E/11.

It should be noted that a wider review of all reactive power service provision and the associated payments made by NGET for providing the service is currently underway.

The modification proposal

NGET raised CMP199 in August 2011. The modification proposal is a consequential change to the CUSC to align it with the Grid Code. It would allow payments to be made to generators which have a reactive despatch restriction in place but which can despatch to Zero MVAR on instruction from NGET. It would do so by cross-referring to the new definition in the Grid Code 'Reactive Despatch to Zero MVAR Network Restriction'. Changes are also proposed to Schedule 3 of the CUSC to update it for the new definition. A Code Administrator consultation on CMP199 received one response supporting the modification proposal.

In the proposer's opinion, the modification proposal would:

- better facilitate Applicable CUSC Objective (a) by aligning the CUSC with the (now approved) changes to the Grid Code through E/11; and
- better facilitate Applicable CUSC Objective (b) by allowing generators under a network restriction who are able to despatch in accordance with the new definition in the Grid Code to do so and be paid for their services. This would prevent discriminatory treatment of those generators in the provision of reactive power services. It would also increase the pool of providers of such services and therefore enhance competition in the generation of electricity.

CUSC Panel⁷ recommendation

The CUSC Panel considered the draft Final Modification Report for CMP199 at its meeting on 28 October 2011. All the Panel members voted to recommend approval of the modification proposal and agreed with the opinion of the proposer regarding both Applicable CUSC Objectives (a) and (b). The views of Panel members are set out in full in the Final Modification Report.

⁷ The CUSC Panel is established and constituted from time to time pursuant to and in accordance with the section 8 of the CUSC.

The Authority's decision

The Authority has considered the issues raised by the modification proposal and the final Modification Report (FMR) dated 10 November 2011. The Authority has considered and taken into account the responses to the Code Administrator consultation on the modification proposal which are attached to the FMR⁸. The Authority has concluded that:

- 1. implementation of the modification proposal will better facilitate the achievement of the applicable objectives of the CUSC⁹; and**
- 2. directing that the modification be made is consistent with the Authority's principal objective and statutory duties¹⁰.**

Reasons for the Authority's decision

In making our decision, we have noted the unanimous support for the modification proposal from CUSC Panel members and from the respondent to the Code Administrator consultation. We agree that the proposal better facilitates relevant objectives (a) and (b), and consider that it has a neutral impact against objective (c).

Applicable Objective (a) 'the efficient discharge by the licensee of the obligations imposed upon it under the Act and by its licence'

We note that NGET has identified that the proposed change is required to ensure consistency with the Grid Code, following approval of E/11. We agree that it is appropriate to align the codes. We note there is a typographical error in the proposed CUSC legal text, which incorrectly refers to 'Mvar' instead of 'MVAR'. This is not a material issue, and NGET should correct the text at an appropriate time.

Overall, we agree that Applicable CUSC Objective (a) is better facilitated by the modification proposal.

Applicable Objective (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'

In our decision to approve E/11, we noted that a wider pool of generation providers from which NGET can instruct despatch of reactive power services may be expected to, subject to appropriate commercial arrangements being in place, improve the competitive provision of these services. By doing so, it would assist NGET to potentially source these services at lower cost. The modification proposal facilitates payment to generators who provide these services and so aligns these generators with others who provide similar services but who are not under a network restriction. By creating a level playing field for all such generators to be paid for these services, the modification proposal would promote effective competition in generation.

Therefore, we agree that Applicable CUSC Objective (b) is better facilitated by the modification proposal.

⁸ CUSC modification proposals, modification reports and representations can be viewed on NGET's website at <http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/>

⁹ As set out in Standard Condition C10(1) of NGET's Transmission Licence, see: http://epr.ofgem.gov.uk/document_fetch.php?documentid=5327

¹⁰The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Electricity Act 1989 as amended.

Implementation date for E/11 and CMP199

We note that the proposed implementation date for CMP199 is 10 business days after an Authority decision. In line with our decision on Grid Code change E/11, we direct that CMP199 be implemented on the same date as E/11 to ensure effective alignment of both changes¹¹.

Decision notice

In accordance with Standard Condition C10 of NGET's Transmission Licence, the Authority, hereby directs that modification proposal CMP199 '*Reactive Despatch Network Restrictions*' be made.

Andrew Burgess

Associate Partner, Smarter Grids and Governance

Signed on behalf of the Authority and authorised for that purpose

¹¹ See paragraphs 1.2 and 5.1 of the FMR.