

Amendment proposal:	System Operator ("SO") – Transmission Owner ("TO") Code ("STC") CA047: Consequential changes to Section K following implementation of Grid Code D/10 'Frequency and Voltage Operating Range'		
Decision:	The Authority ¹ directs that this proposal be made ²		
Target audience:	National Grid Electricity Transmission PLC (NGET), Parties to the STC and other interested parties		
Date of publication:	8 August 2012	Implementation Date:	15 August 2012

Background to the amendment proposal

The Grid Code contains provisions for the frequency and voltage operating range within which generators must operate. In particular, generators are required to be capable of continuous operation in a frequency range between 47.5Hz and 52Hz.

In July 2011, we approved Grid Code modification proposal D/10, 'Frequency and Voltage Operating Range'³, which:

- clarified the voltage operating range requirements applicable to generators;
- improved the consistency of voltage requirement specifications by aligning the under-voltage tripping time to that of the fault ride through profile; and
- introduced the preferred option (49.0Hz to 51.0Hz) for revised time limited frequency operating ranges applicable to generators into the Grid Code.

Section K of the STC defines the minimum technical, design, operational and performance criteria for Offshore Transmission Systems, which include the provision of fault ride through capability in Section K3 and the provision of frequency capabilities and signals in Section K5. The approval and implementation of Grid Code modification proposal D/10 (which, amongst other things, amended Grid Code Connection Condition (CC) 6.1.3) has resulted in an inconsistency with the obligations in Section K 5.4 of the STC.

The proposed Amendment

National Grid Electricity Transmission (NGET) raised amendment proposal CA047 in January 2012. The proposal seeks to remove inconsistencies between the revised Grid Code CC 6.1.3 and the provisions in Section K5 of the STC by making consequential changes to the relevant STC provisions setting out the frequency and voltage operating range (Section K 5.4.1 and 5.4.2), including the introduction of limited operation requirements in certain frequency bands. The revised range would apply to each Offshore Transmission System or any constituent element connected to the NETS.

The amendment proposal also highlights an inconsistency between the provisions of Section K 3.1.2 and 3.1.4 regarding tripping arrangements for Offshore Transmission

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 The D/10 decision letter appears here:

<http://www.ofgem.gov.uk/LICENSING/ELECCODES/GRIDCODE/MODS/Documents1/D10%20D.pdf>

Systems connected to Onshore Systems in Scotland. Currently, K 3.1.4 provides that such Offshore Transmission Systems are required to trip if the voltage measured at the Interface Point⁴ drops below 80% for more than 2 seconds. However, K 3.1.2 requires the Offshore Transmission System to remain connected to the Onshore Transmission System without tripping for 2.5 seconds. The amendment proposal therefore also aligns the provisions in K 3.1.4 with K 3.1.2 by amending the reference to 'below 80% for more than 2 seconds' to 'below 80% for more than 2.5 seconds'.

In addition, the amendment proposal seeks to tidy up a minor error in K 3.1.4 (d) by aligning the relevant text with the equivalent Grid Code provision in CC 6.3.15.

Responses to the STC Committee⁵ consultation

There were no responses to the CA047 industry consultation held in May 2012.

STC Committee recommendation

The STC Committee considered the draft Final Amendment Report (FAR) for CA047 at its meeting on 27 June 2012. The Committee unanimously recommended that CA047 should be approved. The views of STC parties and of the STC Committee are set out in the FAR.

The Authority's decision

We have considered the FAR for CA047, including the proposed legal text, submitted on 9 July 2012. We have noted the impact assessment of STC parties, which is included in the FAR, and that no responses were received to the industry consultation on CA047.

We have concluded that implementation of the amendment proposal would better facilitate the achievement of the STC Applicable Objectives⁶.

Reasons for the Authority's decision

The STC Applicable Objectives which are relevant to our decision are set out below. For all other Applicable Objectives, we consider that the amendment proposal is neutral.

Applicable Objective (c) 'facilitating effective competition in the generation and supply of electricity, etc'

We note that the frequency ranges set out in the Grid Code reflect the standard capabilities of widely available generation plant and should also be replicated in the STC. These ranges are unlikely to have a detrimental impact on the security of the transmission system. The ranges currently set out in the STC are inconsistent with the Grid Code and would result in different arrangements being applied at similar points of connection to the onshore transmission system. We note the view of Offshore Transmission Owners (OFTOs) that there is unlikely to be an impact on currently

⁴ This term is defined in Section J of the STC.

⁵ The STC Committee is established and constituted from time to time pursuant to and in accordance with section B6 of the STC.

⁶ The Applicable Objectives are set out in Standard Licence Condition B12 (3) (a) to (f) of the Electricity Transmission Licence:

<http://epr.ofgem.gov.uk/Pages/EPRInformation.aspx?doc=http%3a%2f%2fepr.ofgem.gov.uk%2fEPRFiles%2fElectricity+transmission+full+set+of+consolidated+standard+licence+conditions+-+Current+Version.pdf>.

operating OFTO systems and that there is unlikely to be more than a minimal impact on future OFTO projects.

In our view, ensuring that there are common technical standards in the STC and Grid Code provides consistency in the technical requirements that apply to transmission systems and to generators operating either onshore or offshore. As a consequence, there should be a beneficial competitive effect through new generators accessing the British electricity market.

For these reasons, we agree that the amendment better facilitates this objective.

Applicable Objective (e) 'promotion of good industry practice and efficiency in the implementation and administration of the arrangements described in the STC'

We note that the STC would be inconsistent with the Grid Code if the amendment is not approved. Ensuring that there is consistency of similar provisions and that industry codes are appropriately aligned prevents confusion amongst code parties about the application of the codes. It also promotes good industry practice and efficiently implements the outcomes of an approved modification to one code across to another.

For these reasons, we agree that the amendment also better facilitates this objective.

Decision notice

In accordance with Standard Condition B12 of the Electricity Transmission Licence, the Authority has decided to direct that proposed Amendment STC CA047 '*Consequential changes to Section K following implementation of Grid Code D/10 'Frequency and Voltage Operating Range'*' should be made.

Andrew Burgess

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Signed on behalf of the Authority and authorised for that purpose