

Grid Code Review Panel – Issue Assessment Proforma
Offshore Wind Farms Not Connected to an Offshore Transmission System
PP 11/36¹

A Panel Paper by John Lucas (ELEXON)

Summary

On 24 June 2009 (the Offshore Transmission Go-Active Date) changes were directed to the Grid Code to implement new arrangements for Offshore Transmission Systems. Unfortunately these changes appear to have had an unintended effect on the Grid Code treatment of offshore wind farms **not** connected to Offshore Transmission Systems. This includes:

- Offshore wind farms connected to shore by a network at less than 132kV; and
- Offshore wind farms connected to shore by a network at 132kV (or more) that is not yet an Offshore Transmission System (because it has not yet been transferred to an OFTO).

ELEXON did not realise it at the time, but with hindsight the OFTO drafting had the unintended effect of preventing turbines at such a wind farm from forming part of a Power Park Module. This means that, strictly speaking:

- None of the Grid Code provisions for Power Park Modules apply to such wind farms;
- The standard BM Unit configuration for such wind farms is one BM Unit per wind turbine (although this could be overcome by seeking a non-standard BM Unit configuration); and
- If the wind farm is a Large Power Station, each individual wind turbine would (for Grid Code purposes) be a Genset in its own right, and require its own OC2 data.

This is not appropriate and was never intended. The Grid Code definition of Power Park Module should be amended to revert these wind farms to the pre-OFTO status quo i.e. it should be possible to have Power Park Modules connected to offshore non-OFTO networks.

ELEXON's reason for bringing this issue to the attention of the GCRP is that it is causing difficulty and uncertainty (for BSC Parties and for us as Code Administrator) in registering BM Units for offshore wind farms in the Round 1 transitional tender process.

Users Impacted

High

Offshore wind farms connected to non-OFTO networks could face a severe administrative burden if the letter of the current Grid Code were to be enforced (although it may be that NGET and other Code Administrators are able to mitigate this by taking a pragmatic view and complying with the intended spirit of the Grid Code where possible).

Description & Background

The Grid Code and the BSC both recognise that individual wind turbines tend to have a smaller output than individual Generating Units at thermal power stations, and therefore allow them to be grouped into Power Park Modules. A Power Park Module can form a single Genset for Grid Code purposes; and can be registered as a standard BM Unit configuration under the BSC.

¹ The Code Administrator will provide the paper reference following submission to National Grid.

Description & Background (Cont.)

Prior to Go-Active for Offshore Transmission, the Grid Code defined a Power Park Module as follows: *“A collection of Non-synchronous Generating Units (registered as a Power Park Module under the PC) that are powered by an Intermittent Power Source, joined together by a System with a single electrical point of connection to the GB Transmission System (or User System if Embedded). The connection to the GB Transmission System (or User System if Embedded) may include a DC Converter.”*

This definition could include offshore wind farms, regardless of the ownership and voltage of the network connecting them to the onshore Total System. But at Go-Active the definition was amended as follows: *“Any Onshore Power Park Module or Offshore Power Park Module.”* Wind turbines connected to an offshore network that is not an Offshore Transmission System cannot fall within the scope of this definition:

- They cannot form part of an Onshore Power Park Module, because they are not located Onshore;
- They cannot form part of an Offshore Power Park Module, because they are not connected to an Offshore Transmission System.

This means that individual wind turbines at such wind farms have to be treated separately, which could impose a significant administrative burden on Generators, NGET and BSC Agents involved in BM Unit registration.

Proposed Solution/Next Steps

This appears to be a simple drafting error which ought to be fixed, and could go straight to consultation without needing to be considered by an industry Working Group (unless NGET uncover more substantial issues while drafting the required changes to the legal text).

Impact & Assessment

If changes to the Grid Code are being proposed, please provide the below information.

Impact on the National Electricity Transmission System (NETS)

No. The changes would just be fixing a drafting error, and bringing the Grid Code back into line with what Parties intended.

Impact on Greenhouse Gas Emissions²

No. The changes would just be fixing a drafting error, and bringing the Grid Code back into line with what Parties intended.

Impact on core industry documents

No. The changes would just be fixing a drafting error, and bringing the Grid Code back into line with what Parties intended.

² The most recent guidance on the treatment of carbon costs under the current industry code objectives can be found on the Ofgem website at: <http://www.ofgem.gov.uk/Licensing/IndCodes/Governance/Pages/Governance.aspx>

Impact on other industry documents

No. The changes would just be fixing a drafting error, and bringing the Grid Code back into line with what Parties intended.

Assessment against Grid Code Objectives

By removing an unintended and potentially onerous administrative burden on Generators and NGET this change would facilitate Grid Code objectives (i) and (ii):

- (i) to permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;
- (ii) to facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity) ; and

Supporting Documentation

Have you attached any supporting documentation

NO

If Yes, please provide the title of the attachment:

Recommendation

The Grid Code Review Panel is invited to:

Approve this issue for progression to an Industry Consultation

GCRP Decision (to be completed by the Committee Secretary following the GCRP)

The Grid Code Review Panel determined that this issue should:

INSERT GCRP DECISION