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25 February 2004

Dear Colleague,

Request from NGC for Derogation from its Grid Code

Ofgem has received a request from NGC for derogation from its Grid Code in relation to the following generators that are or intend to be distribution connected:-

- North Hoyle (offshore windfarm that has chosen to connect to the Manweb distribution network)
- Cefn Croes (onshore windfarm that has chosen to connect to the Manweb distribution network that itself is connected via the WPD distribution network to the transmission system)
- Kentish Flats (offshore windfarm that has chosen to connect to the EDF Energy (SPN) distribution network)

Ofgem also notes that it may receive further applications from NGC in relation to other connections of generators in this class.

NGC has requested derogation from a number of specific obligations in the:-

- Connection Conditions
- Planning Code
- Data Registration Code
- Operating Code 1 (Demand Forecasting)
- Operating Code 5 (Testing and Monitoring)
- Operating Code 12 (System Tests)
- General Conditions

of the Grid Code such that it is not required to have them in force in relation to the three generator connections identified. The details of NGC's request are included as Appendix 1 to this letter.

Background

NGC's Grid Code ('the Grid Code') currently includes a number of obligations relevant to medium embedded power stations. For the purposes of the Grid Code, medium embedded power stations are generators sized between 50 and 100MW that are connected to a distribution network. NGC has a licence obligation to comply with and have its Grid Code in force.

For each of the windfarms identified above, the Secretary of State has granted (following consultation) licence exemption and as such these generators are not obliged by licence to comply with the CUSC, BSC or Grid Code. Ofgem understands that each of these windfarms has chosen to connect to a distribution network and will have a contractual arrangement with an electricity distribution licence holder.

As part of DTI's consultation on the licence exemption, NGC identified a number of technical performance criteria that it considered that these generators needed to be obliged to comply with to allow NGC to manage the safe and secure operation of its transmission system. Ofgem understands that in reaching the decision to grant the licence exemption orders, DTI has also required the generator and NGC to enter into an agreement setting out the technical performance criteria that NGC had identified as necessary.

NGC has advised that these requirements are defined in a Licence Exempt Generator Agreement (LEGA) and that this type of agreement is not within the CUSC framework. Ofgem notes that the LEGA does not require the generator to comply with the Grid Code and the terms of a LEGA will be agreed on a bilateral basis between NGC and each of these generators. Ofgem further notes that NGC's licence does not require it to enter into agreements that would be in breach of the Grid Code[1] and that this is one of the reasons that NGC is seeking derogation from its Grid Code. As such, there is a dependency between this derogation decision and the LEGA.

Ofgem notes that the LEGA is not considered by NGC or the generators to be a suitable enduring arrangement and that a joint Grid and Distribution Code Review Panel working group has been established to consider longer term solution options. Ofgem notes that whilst it is not aware of any intention at this stage for additional obligations to be placed on licence exempt generators there may be value to such parties in maintaining an awareness of changes that are proposed to the Grid and Distribution Codes.

Description of the Derogation Requested

In summary, Ofgem considers that the nature of relief that NGC is requesting to be:-

Connection Conditions

The Connection Conditions set out the technical criteria with which Users are required to comply with before becoming operational. Generators with medium embedded power stations are not excluded from the scope of the Connection Conditions.

[1] Paragraph 5(a)(iii) of Condition C7D of the Electricity Transmission Licence sets out that the licensee is not obliged to offer to enter into agreement if to do so would be in breach of the licensee's Grid Code.

Ofgem notes that a number of the obligations that NGC has identified related to the exchange of information about a connection site that interfaces with the transmission system which do not appear to be relevant to distribution connected generators. It is also not clear to Ofgem at this stage if the obligations linked to provisions set out in the CUSC (forming part of the list in Appendix 1) are relevant to this derogation request.

The Connection Conditions also set General Generating Unit requirements which set out the technical capabilities that generating plant should have. Ofgem notes that there is an exclusion in CC6.3.1 that states that this section (CC6.3) does not apply to small power stations, hydro units and renewable energy plant not designed for frequency and voltage control. In these cases, Ofgem considers that this exclusion applies given that it understands that the LEGA does not require the generating plant to be designed with Grid Code compliant frequency and voltage control capability.

The other obligations identified by NGC set out requirements that a User needs to comply with if required by NGC. Given the application submitted by NGC, Ofgem understands that there are no such requirements in relation to these medium embedded power stations.

Ofgem notes that NGC has advised that there are technical performance requirements within the LEGA that are sufficient for it to manage the safe and secure operation of its transmission system. NGC has also advised that the LEGA also provides a contractual link between NGC and the generators should any information need to be exchanged.

Planning Code

The Planning Code sets out the technical data that Users are obliged to provide to NGC. Medium embedded power stations are within the scope of Users for the purposes of the Planning Code.

It is not clear to Ofgem at this stage if the obligations linked to provisions set out in the CUSC (forming part of the list in Appendix 1) are relevant to this derogation request.

Ofgem considers that the Planning Code obligations on medium embedded power stations relate to the exchange of technical data and notes that NGC has identified that the exchange of information if required can be facilitated by the LEGA that will exist between NGC and each generator.

Data Registration Code

This section of the Grid Code tabulates the information that is required to be submitted by User to NGC (or NGC to Users) under other sections of the Grid Code. In the case of medium embedded power stations, the Data Registration Code schedules set out the Planning Code data requirements.

Operating Code 1 (Demand Forecasting)

Under this section of the Grid Code, generators are required to provide information to NGC about the output of medium embedded power stations at the time of system maximum and minimum demands. This section also sets out that generators should provide more detailed information about the output from medium embedded power stations if NGC reasonably requests it.

Ofgem notes that NGC has identified that the exchange of information if required can be facilitated by the LEGA that will exist between NGC and the generator.

Operating Code 5 (Testing and Monitoring)

OC5 sets out that NGC will monitor compliance by Users with the Connection Conditions. Generators with medium embedded power stations are within the scope of User for the purposes of OC5.

In this application, NGC is seeking derogation from OC5 that reflects its request for derogation from the Connection Conditions in relation to these medium embedded power stations. However, NGC has advised that there are sufficient provisions in the LEGA to allow it to seek technical information from these generators about their compliance with the performance criteria that are specified within the LEGA.

Operating Code 12 (System Tests)

In its application NGC notes that this section of the Grid Code requires the exchange of information about any proposed system test and that if derogation was granted it would not need to directly notify these medium embedded power stations. NGC further notes that such notifications would be provided to distribution licensees but also that system tests were a very rare occurrence.

Ofgem notes that the distribution licensee is likely to share a notification of a system test with the medium embedded power stations (if there was an impact on the connection to that power station).

General Conditions

The General Conditions set out that they apply to all Users. This section sets out the general provisions for data exchange and communications between Users and NGC. It also sets out the default arrangements that should apply if a User and NGC fail to agree.

Ofgem considers that should a derogation be granted in relation to the other Grid Code obligations on the grounds that all necessary requirements are set out in a LEGA then it would be appropriate to grant NGC relief from the General Conditions.

Ofgem View

Ofgem has completed its initial assessment of NGC's derogation request and has not identified any issues that would prevent it from granting the relief that has been requested. However, Ofgem intends to carry out a more detailed assessment of the request to satisfy itself that it is justified and that the issue of a derogation to NGC would not introduce an unacceptable risk of deterioration in the safe and secure operation of NGC's transmission system. Ofgem invites views on this derogation application and plans to consult directly with NGC to further understand the scope of the derogation request.

Ofgem does not consider that the request for a derogation for the lifetime of each of the generator connections is appropriate. Ofgem considers that a time limited derogation may be justified and considers that the length of the derogation period (should a derogation be granted) should be limited to the time reasonably required for the development of an enduring solution. Views are also invited on the time required for the Grid and Distribution Code Review Panels to progress proposals for an enduring solution.

Views Invited

Ofgem would welcome comments on the points raised in this letter and in particular invites views on:-

- The scope of NGC's derogation request.
- Any issues should the requested derogation be granted to NGC.
- An appropriate derogation period.
- A longer term solution to this issue.
- The appropriateness of applying this approach to other generators with medium embedded power stations to whom the Secretary of State grants (or may grant) licence exemption.

Responses should be sent to Margaret Coaster at the postal address below or by email to margaret.coaster@ofgem.gov.uk. Interested parties are requested to submit responses clearly marked "Response to Consultation on Request by NGC for Derogation from the Grid Code" by 5pm on Friday 26 March 2004. Ofgem intends to publish responses in full on the Ofgem website. If respondents do not wish their response to be published, it should be clearly marked 'Confidential'.

Please contact me if you have any queries in relation to the issues raised in this letter. Alternatively, please contact Bridget Morgan on 020 7901 7080.

Yours sincerely

John Scott
Technical Director

Appendix 1 – Extract from Attachment to NGC's Letter Requesting Derogation

Clauses from which NGC requires derogation

Licence Exempt Embedded Medium Power Stations (Wind Farms)

Planning Code

PC.3.1
PC.3.2
PC.3.3
PC.4.1(b)
PC.4.2.1
PC.4.2.4
PC.4.3 and all subordinate clauses
PC.4.4 and all subordinate clauses
PC.4.5 and all subordinate clauses
PC.5.2
PC.5.4
PC.5.5
PC.A.1 and all subordinate clauses
PC.A.2.1.1
PC.A.2.5.5 and all subordinate clauses
PC.A.2.5.6
PC.A.3.1.2
PC.A.3.2.1(b)
PC.A.3.2.2(a)
PC.A.3.3.1
PC.A.3.4 and all subordinate clauses
PC.A.5.1.2
PC.A.5.2 and all subordinate clauses
PC.A.5.3 and all subordinate clauses
PC.A.7

The Planning Code ("PC") specifies the technical and design criteria and procedures to be applied by NGC in the planning and development of the NGC Transmission System and to be taken into account by Users in the planning and development of their own Systems. It details information to be supplied by Users to NGC, and certain information to be supplied by NGC to Users.

Under the planning procedures, National Grid is obliged to allow Users to assess the opportunities for connecting to and using the transmission system. Clause 4.1 (b) requires National Grid to enter into a CUSC contract for the use of the transmission system by an embedded medium power station. The DTI licence exemption means that there is no CUSC contract between National Grid and the embedded medium power station.

The majority of the Planning Code clauses allow National Grid to gather information necessary to plan the transmission system. In the case of an embedded medium power station this information relates to the technical parameters of the generator that National Grid uses to carry out modelling for system security analysis. National Grid believes that the Licence Exempt Generation Agreement allows National Grid to request technical data on the wind farm from the Generator at commissioning.

It should be noted that the Planning Code Appendices are drafted for synchronous machines and are not directly applicable to non-synchronous technologies employed in wind farms. In consequence National Grid is seeking to introduce an additional schedule of information relevant for wind farm technologies as detailed in the Report to Ofgem D/03.

The Planning Code also requires National Grid to supply information to Users. However this is at the point of connection and is therefore not applicable to a User who is not directly connected to the transmission system.

The Licence Exempt Embedded Medium Power Station Working Group, LEEPMS, a joint Grid Code and Distribution Code working group, is seeking to establish a more transparent route for NGC to obtain such information in relation to Medium Power Stations. It is expected that this will replace the need to request the information through the Licence Exempt Generation Agreement.

Connection Conditions

CC.3.1
CC.4.1
CC.5.1
CC.5.2
CC.5.4
CC.6.1.1
CC.6.3 and all subordinate clauses
CC.6.5 and all subordinate clauses
CC.6.6.1
CC.8.1
CC.8.2
CC.A.3

The Connection Conditions ("CC") specify both the minimum technical, design and operational criteria which must be complied with by any User connected to or seeking connection with the NGC Transmission System or Generators connected to or seeking connection to a User's System, and the minimum technical, design and operational criteria with which NGC will comply in relation to that part of the NGC Transmission System at the Connection Site with Users.

Clauses 4 and 5 of the Connection Conditions relate to management of a connection with a CUSC contract. The DTI licence exemption means that there is no CUSC contract between National Grid and the embedded medium power station. References to site responsibility schedules, operation diagrams, site common drawings and safety are not applicable to embedded power stations as the connection interface is with the Distribution Network Operator.

Clause 6 relates to the performance characteristics that National Grid is obliged to maintain on the transmission system and the technical requirements that Users' plant is to comply with. National Grid recognises that the current clauses drafted for synchronous machines may not be clearly applicable to non-synchronous technologies employed in wind farms. In consequence National Grid is seeking to introduce clarification of the performance requirements in the Connection Conditions for wind farm technologies as detailed in the Consultation Report to Ofgem D/03.

National Grid believes that the Licence Exempt Generation Agreement (LEGA) places minimum technical performance requirements equivalent to a number of the Grid Code Connection Conditions on to embedded medium wind farms. National Grid believes that these requirements included in the LEGA are essential to ensure safe and secure operation of the transmission system. National Grid believes that the transmission system can be managed safely and securely without imposing the remainder of the Connection Conditions on the power stations of the DTI "Round 1" wind farm development on a "one off" basis provided that the performance requirement in the LEGA are met.

The Licence Exempt Embedded Medium Power Station Working Group is working to ensure that in the future, the Grid Code technical requirements for directly connected Medium Power Stations should be applied to Embedded Medium Power Stations. The most likely route for achieving this is currently anticipated to be via changes to the Grid Code to place additional obligations on DNOs in this respect and for these requirements to be incorporated in the distribution Code. The report from the working group is expected to be submitted to the Authority by Summer 2004

Operating Codes

OC1

OC.1.4.1(b)(ii)
OC.1.4.2(c)
OC.1.5.1(b)
OC.1.5.2(b)
OC.1.5.3

The obligations in OC1 on Medium Power Stations are generally prefixed with 'if reasonably required by NGC'. National Grid believes that the LEGA provides it with a route, where necessary, to obtain the information required. In the longer term we anticipate such information will be provided through the provisions being developed by LEEMPS.

OC5 – assuming not a BM Unit

OC.5.4.1(b)
OC.5.4.2.2(b)
OC.5.4.2.3
OC.5.4.2.4
OC.5.5.1.1
OC.5.5.2.4
OC.5.5.3
OC.5.7

The clauses of Operating Code 5 listed above outline the process for monitoring and checking compliance of Users with the Connection Conditions. In this case the User is exempted from the Connection Conditions. National Grid believes that the Licence Exempt Generation Agreement allows National Grid to request sufficient technical information from the Generator to demonstrate that the performance requirements included in the agreement are met at the time of connection.

Through the Grid Code Review Panel, National Grid has extended the scope of "RoCoF Reporting" to include other transmission events that may impact on embedded generation. Through this process, it is expected that Distribution Network Operators will report incidents involving licence exempt medium wind farms that will ensure that lifetime compliance with the LEGA can be monitored.

It is envisaged that LEEMPS will deal with the enduring arrangements for compliance of embedded units where the provisions in the Grid Code are placed on the Generator through the host Network Operator.

OC12

OC.12.4 and all subordinate clauses

Operating Code 12 relates to the exchange of information relating to "System Tests". By this exemption the Medium Embedded Power Station would not be informed of the system test however National Grid is obliged to inform the host Network Operator. It is envisaged that the Network Operator would treat the embedded Medium Power Station in the same way as all other embedded power stations that are not licensed.

National Grid also notes that System Tests are exceptionally rare events and therefore the derogation in this area will not have a significant impact on the User or National Grid.

Data Registration Code

DRC.3.1
DRC.5.3.1
DRC.5.4 and all subordinate clauses
DRC.6.2
DRC Schedule 1
DRC Schedule 9
DRC Schedule 14

The Data Registration Code tabulates the information detailed in the Planning Code. In the same way as the Planning Code, the current Data Registration Code Schedules are drafted for synchronous machines and are not directly applicable to non-synchronous technologies employed in wind farms. In consequence, National Grid is seeking to introduce additional schedules relevant for wind farm technologies, as detailed in the Report to Ofgem D/03.

National Grid believes that the Licence Exempt Generation Agreement allows National Grid to request the required technical data on the wind farm from the Generator at commissioning. The enduring arrangements for data exchange are being discussed at LEEMPS.

General Conditions

GC.2.1
GC.3.1
GC.5 and all subordinate clauses
GC.6.1.1
GC.10

The general conditions contain provisions that are general application to all sections of the Grid Code. As Licence Exempt generation is not required to comply directly with any of these sections it is appropriate that they be derogated from these provisions.

If Licence Exempt generator became a member of the Panel they would be bound by the Constitution and Rules that contains the same provisions as the General Conditions in relation to the Panel.