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Promoting choice and value for all gas and electricity customers

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Dear Rob,

Western Isles: Derogation from standard condition D3 of the Electricity Transmission Licence (Transmission system security standard and quality of supply)

This letter sets out the Authority's reasons for granting derogation to Scottish Hydro-Electric Transmission Limited ("SHETL") from the requirement contained within paragraph 1 of standard licence condition D3 ("SLC D3") of the Electricity Transmission Licence. SLC D3 requires the Transmission Licensee to plan and develop its transmission system in accordance with the National Electricity Transmission System Security and Quality of Supply Standard ("NETS SQSS")<sup>1</sup>.

In accordance with the principles of 'interim connect and manage', the derogation attached to this letter will partly facilitate the connection of the 'second tranche' of generation seeking earlier connection to the network in the area known as The Western Isles<sup>2</sup>. The 'second tranche' of generation relates to generators identified by the transmission licensees as being able and willing to connect early under the interim connect and manage arrangements, but excludes generators included in the 'first tranche' of generation that was associated with the derogation directions issued on 2 July 2010<sup>3</sup>. We expect to receive further derogation requests in relation to additional tranches that have been and will be identified and offered earlier connection.

The connection of the second tranche of generation is also dependent on the decision Ofgem has made to grant derogations to SHETL in relation to the B1 boundary<sup>4</sup>, and to SP Transmission Limited ("SPT") and National Grid Electricity Transmission plc ("NGET") in relation to the Cheviot boundary<sup>5</sup> between Scotland and England. The Cheviot and B1 boundary decision letters and derogations were issued on 2 July 2010 and are available on our website<sup>6</sup>. In combination, these decisions remove the obstacles to the connection of the second tranche of generation which arise because of the NETS SQSS.

<sup>&</sup>lt;sup>1</sup> The current version of the NETS SQSS is version 2. It is intended that this derogation will apply to any subsequent versions of the NETS SQSS subject to the terms of this letter and associated Direction.

<sup>&</sup>lt;sup>2</sup> The relevant circuits are (i) 132kV single circuit between Dunvegan and Edinbane (ED1), (ii) 132kV single circuit between Edinbane and Broadford (BE1), (iii) 132kV single circuit between Broadford and Quoich (QB1). (iv) 132kV single circuit between Quoich and Tee with Fort Augustus /Fort William circuit (FQ). (v) 132kV double circuit between Fort Augustus and Fort William (FFE/FFW).

<sup>&</sup>lt;sup>3</sup> http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Pages/Traccrw.aspx

<sup>&</sup>lt;sup>4</sup> The relevant circuits are The 275kV circuits between Beauly and Blackhillock, the 275kV circuits between Foyers and Blackhillock, the 132kV circuits between Fort Augustus and Errochty, and the two super grid transformers (SGTs) at Keith.

<sup>&</sup>lt;sup>5</sup> The circuits between Eccles and Stella West, Strathaven and Harker and relevant 132kV circuits from Galashiels.

<sup>6</sup> http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Pages/Traccrw.aspx

#### **Background**

In the transition to the British Electricity Trading and Transmission Arrangements ("BETTA") in 2005, the Authority granted SPT and NGET derogations<sup>7</sup> from the requirement to comply with the criteria for the design of the main interconnected transmission system set out in paragraphs 4.1 to 4.13 of the NETS SQSS (the "BETTA derogation"). The BETTA derogation applied to the Cheviot boundary. It enabled the connection of certain generators in Scotland, ahead of reinforcement of the Cheviot boundary to increase its capability.

In March 2009<sup>8</sup>, we issued a consultation on a proposed approach to use derogations from the NETS SQSS to facilitate earlier connection of generation to the transmission and distribution systems in GB. We set out in that consultation that the practical effect of the BETTA derogation is that transmission capacity is effectively "oversold" in Scotland, in that the total amount of rights to access the system which have been sold to generators exceeds the current physical capacity of the transmission system, in particular at the Cheviot boundary. We noted that this clearly benefits those generators in Scotland that have access to these rights, as they are able to sell their output or receive compensation (through constraint payments) if their output is restricted due to insufficient transmission capacity.

We set out that the practical effect of that decision is that generators who were connected to the system prior to BETTA, or had made an application to connect before 1 January 2005, enjoy substantial benefits through being able to access the system, compared with generators who have sought connection since that date. We set out our view that, whilst the BETTA derogation remains in place, if we are to avoid undue discrimination, we would need to extend the principle of over-selling for an interim period, until new, enduring access reforms are implemented.

We noted that we could not rule out the need to revisit this approach and the principle of overselling in general if, for example, there was a delay to enduring access reforms or other unforeseen developments. We set out that in such circumstances we would be mindful of the need to avoid undue discrimination and would need to consider the issue of overselling in general. We noted that this could require remedies which would affect all generators in areas of over-selling, rather than solely focusing on generators who have connected or plan to connect to the transmission or distribution networks from a particular point of time.

The majority of respondents to our consultation supported our proposed approach. In May 2009<sup>9</sup>, we set out our decision to adopt an interim 'connect and manage' ("ICM") approach to accelerate the connection of new generation in advance of transmission system reinforcement, and ahead of the enduring transmission access reforms. We set out that, to avoid undue discrimination, we would extend the principle allowing over-selling to apply to other generators in comparable situations (i.e. those generators whose connection date is delayed as a result of the need to complete reinforcement of the wider transmission system). We also set out, for the avoidance of doubt, that the principle did not apply to those generators whose connection date is delayed as a result of local connection works not being complete, or as a result of there being no physical connection to the contiguous GB transmission system.

In addition, we set out that we considered that it was appropriate that the issue of how to deal with the costs associated with this approach should be considered separately, but that in any case we expected the costs to be relatively modest for a number of reasons,

8 http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Documents1/Derogation%20letter%2019%20Marc h%2009.pdf

<sup>&</sup>lt;sup>7</sup> http://epr.ofgem.gov.uk/

<sup>&</sup>lt;sup>9</sup>http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Documents1/20090508%20derogations%20interim.pdf

including that this was intended to be a short term measure. We made clear that we would keep the costs under review.

Following our May 2009 decision, the transmission licensees identified generators that could potentially benefit from ICM. Subsequently, NGET and Scottish distribution network operators ("DNOs") made offers to (and entered into agreements with) transmission and distribution generators seeking to advance their connection dates, subject to relevant derogations being granted by Ofgem.

In parallel with our work on ICM, and in light of our concerns about the proposed enduring grid access models then being developed by industry, the Authority recommended that the Secretary of State use his powers under the Energy Act 2008 to facilitate reform of the transmission access arrangements<sup>10</sup>. Subsequently, before the May 2010 general election, the then Government announced that it intended to introduce an enduring connect and manage regime. If this approach is implemented as currently proposed, it would, amongst other things enable transmission licensees, in certain circumstances, to 'self derogate' from the requirements of the NETS SQSS to facilitate earlier connection, and the costs associated with this approach will be spread across all users of the system. This approach would replace the interim connect and manage approach that we announced in May 2009.

On 2 July 2010, we granted derogations<sup>11</sup> to the transmission licensees in relation to the connection of the first tranche of ICM generation, which are in relation to the B1 and Cheviot boundaries and circuits in Kintyre.

## Request for derogation

In accordance with the principles of ICM, NGET and Scottish Hydro-Electric Power Distribution Limited ("SHEPD") have entered into connection agreements with a number of generators in Scotland to advance their connection dates ahead of reinforcement of the wider transmission system. We understand that the agreements of these generators are conditional upon, amongst other things, Ofgem granting derogation from the requirement to comply with the NETS SQSS.

The transmission licensees have identified the extent of the technical non-compliance with the NETS SQSS which would arise from the second tranche of proposed early-connecting generation, which is comprised of approximately 75MW of renewable generation seeking connection to the transmission and distribution systems in Scotland.

Facilitating this earlier connection is dependent on, amongst other things:

- Ofgem not revoking the derogation directions issued on 2 July in relation to the B1 transmission boundary and the Cheviot boundary between Scotland and England, and
- 2. Ofgem granting derogation in relation to the transmission system in the area of The Western Isles.

This letter is in relation to SHETL's application for derogation in relation to the second tranche of generation seeking connection in the Western Isles area. The application is for derogation from the requirements set out in chapter 2 of the NETS SQSS in relation to the relevant circuits in the area of The Western Isles.

NGET has carried out analysis of the costs and benefits that would be associated with the connection of the second tranche of generation. This analysis is available on NGET's website $^{12}$ .

12 http://www.nationalgrid.com/uk/Electricity/Codes/gbsqsscode/DocLibrary/

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<sup>&</sup>lt;sup>10</sup>http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Documents1/Miliband%20-%20250609.PDF

<sup>11</sup> http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Pages/Traccrw.aspx

NGET's analysis estimates the incremental costs (increasing constraints costs) and benefits (carbon savings) overall associated with the earlier connection of the second tranche of generation. The results from NGET's 'business as usual' or best view scenario are set out in the table below. For the avoidance of doubt, the numbers below are indicative and are therefore subject to change. The numbers are forecasts which may diverge from actual experience. The numbers may also overstate the adverse impact of the derogation if the connection of the additional generation results in favourable changes to wholesale electricity prices which are passed through to end-consumers.

The business as usual scenario NGET has used assumes amongst other things the realisation of NGET's best view of the likely generation background over the period, and the ability of NGET to secure contracts and actions to manage constraints. For more detail on the approach adopted by NGET, please see the full report on NGET's website.

Table 1: Summary of NGET's results for second tranche

	2010/11	2011/12	2012/13	2013/14	2014/15	TOTAL (£M)
Additional constraints (£m)	0.1	0.4	39	17.2	6.3	63
Carbon savings* (£m)	0.0	0.2	1.1	2.1	2.2	5.6
Constraints minus carbon	0.1	0.2	37.9	15.1	4.1	57.4
NPV** of ad	55.9					
NPV** of add	116.2					
Combined N	172.1					

<sup>\*</sup> NGET's cost benefit analysis sets out that it has followed DEFRA's latest guidance in calculating the carbon savings.

## Ofgem's views

We have considered information provided by NGET and SHETL in making our decision on derogation for The Western Isles area.

#### We note that SHETL has:

- identified a number of generators that could connect ahead of reinforcement of The Western Isles network, as envisaged under ICM, and
- provided information to NGET on the relevant circuit capabilities and the noncompliance that arises when connecting certain additional generation.

#### We note that NGET has:

- provided Ofgem with analysis of the incremental impact of connecting the second tranche of generation that could connect ahead of reinforcement, identifying the expected costs (which amount to increased constraint costs) and benefits (carbon savings)
- indicated in that analysis that there are increased costs overall of connecting the second tranche of generation identified, since the carbon benefits would not offset the increased constraint costs
- confirmed that it will be able to continue to operate the system in accordance with the requirements of chapter 5 of the NETS SQSS (system operation), i.e. it can continue to comply with chapter 5 of the NETS SQSS (system operation), and

<sup>\*\*</sup>Net Present Value (NPV) to 2009, the same year DECC used for its analysis on connect and manage, using 3.5% discount rate as per DECC's documents.

<sup>&</sup>lt;sup>13</sup>http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Pages/Traccrw.aspx

• identified measures to maintain system operability, and committed to keep these under review to ensure that these are procured efficiently.

We have considered SHETL's derogation request in accordance with our principal objective and general duties, and in light of the information that has been provided to us. We have considered those factors set out in our Guidance on licence derogation requests<sup>14</sup> and the principles set out in our May 2009 decision on ICM, in particular in relation to non-discrimination. Subject to a number of conditions, we have decided to grant derogation to SHETL from the NETS SQSS in relation to the relevant circuits in the Western Isles area for the following reasons:

- SHETL has identified or is currently developing the planned reinforcement works to achieve compliance
- these will be assessed in the context of the transmission price control review, and
- although NGET's analysis indicates that there are significant increased costs overall
  of connecting the second tranche of generation identified, it has identified
  operational measures to manage the system, and measures (including intertrip and
  measures such as contracts) to minimise costs.

We consider that granting a derogation for The Western Isles network is consistent with the ICM approach we consulted on in March 2009 before reaching our decision in May 2009. We noted then that we understood the approach would result in increased constraint costs, and that we would keep costs under review.

The analysis provided by NGET reinforces the concerns we expressed when we made our decision on the derogation for tranche 1 generation. We are worried by the level of incremental constraints costs which is forecast to arise as a result of this derogation, which reinforces our more general concern about the potential adverse impact of a connect and manage regime. However, for the reasons set out above in connection with our May 2009 decision, we consider that it is appropriate to grant this derogation. We will continue to monitor the level of constraints costs which arise as a result of the application of the connect and manage approach and expect NGET and SHETL to do the same. We expect to be kept informed of changes to the overall generation background in the area, which may result in us revisiting this derogation and considering what, if any, conditions it may be appropriate to apply to generation connecting in the area (both existing and future).

For the avoidance of doubt, this derogation is granted on the basis of the impacts NGET has identified associated solely with the second tranche of generation connecting under ICM, and is subject to the conditions set out below. We expect further derogation would be required to facilitate earlier connection of additional generation, and will consider future requests as these are submitted.

As noted above, the implementation of DECC's proposed enduring connect and manage regime will replace the interim connect and manage approach that we adopted in May 2009. We do not expect that the implementation of enduring connect and manage would have an impact on this decision but we note that, as with any derogation, we will keep our decision under review. As previously noted, we cannot rule out the need to review our approach if there are significant delays to enduring access reform, or other unforeseen circumstances.

## **Conditionality**

The derogation is conditional upon:

i. the derogations for the B1 and Cheviot boundaries remaining in effect<sup>15</sup>

<sup>&</sup>lt;sup>14</sup>http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=14&refer=Networks/Techn/TechStandds/Derogtn <u>s</u>. We issued additional guidance in January 2009 which is available here:

http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=15&refer=Networks/Techn/TechStandds/Deroqtns

15 Both the derogation originally granted in 2005 (and renewed in 2007) and the further derogation granted on 2

July 2010.

- ii. the transmission licensees (where relevant in conjunction with relevant distribution licensees) facilitating the connection of the second tranche of generation in the timescales currently anticipated, or similar generation with similar impacts. For the avoidance of doubt, should the licensees identify changes to the generation background that would affect significantly the extent of the non-compliance identified in the context of this derogation, and/or the impacts NGET has identified, we expect the relevant licensee to seek additional derogation if appropriate;
- iii. SHETL providing in a timely manner to NGET all necessary information to enable NGET to provide to Ofgem six months after the date this derogation is granted (and every 6 months thereafter) a report on the impact of the derogation. NGET's report shall set out:
  - a. the operational measures NGET is taking to manage the system in the areas to which derogation applies;
  - b. the commercial actions NGET is taking in this regard;
  - the incremental costs and benefits related to the generation connecting early under this derogation, arising in the preceding 6 month period; and
  - d. as above, forecast for the following 12 month period;
- iv. NGET continuing to be able to operate the system in accordance with the requirements of chapter 5 of the NETS SQSS. We note that NGET has not identified the need for derogation against chapter 5 of the NETS SQSS and assesses that it can manage the system. We also note that NGET is required by its licence to procure balancing measures efficiently, and by the Electricity Act to operate the system efficiently;
- v. NGET (and where relevant, distribution licensees) having in place appropriate (and efficient) measures to mitigate the impacts of the non-compliance;
- vi. if appropriate, transmission licensees seeking further derogation in relation to subsequent tranches, identifying the further incremental impacts; and
- vii. NGET and SHETL keeping the implications of the derogation on constraints costs under review and informing Ofgem of changes to the overall generation background in the area, which may result in us revisiting this derogation and considering what, if any, conditions it may be appropriate to apply to generation connecting in the area (both existing and future).

## **Decision**

The Authority has decided to grant SHETL derogation from the requirement in paragraph 1 of SLC D3 to comply with the obligations in paragraphs 2.5 to 2.13<sup>16</sup> of the NETS SQSS in relation to the circuits in Western Isles.

Attached to this letter is a copy of the Direction for the purposes of the derogation.

This letter constitutes notice for the purposes of section 49A of the Electricity Act 1989 in relation to the Direction.

Yours sincerely

Stuart Cook Senior Partner

**Transmission and Governance** 

<sup>&</sup>lt;sup>16</sup> Note that SHETL's original application contained a typo showing these as "paragraphs 2.5 to 4.13", which they subsequently clarified that it should be "paragraphs 2.5 to 2.13".

Direction issued to Scottish Hydro-Electric Transmission Limited by the Gas and Electricity Markets Authority pursuant to paragraph 4 of standard condition D3 (Transmission system security standard and quality of service) of the electricity transmission licence

- 1. This Direction is issued by the Gas and Electricity Markets Authority ("the Authority") pursuant to paragraph 4 of standard condition ("SLC") D3 of the electricity transmission licence ("the Licence") granted or treated as granted under section 6(1)(b) of the Electricity Act 1989 ("the Act") to Scottish Hydro-Electric Transmission Limited ("the Licensee").
- 2. Paragraph 4 of SLC D3 of the Licence provides that the Authority may issue directions relieving the Licensee of its obligations under paragraph 1 of SLC D3 of the Licence in respect of such parts of the Licensee's transmission system and to such extent as may be specified in the directions.
- 3. Subject to paragraph 4 of this Direction, the Authority hereby directs, pursuant to paragraph 4 of SLC D3 of the Licence, that the Licensee is relieved of its obligations under paragraph 1 of SLC D3 of the Licence with respect to each connection point in column 1 of the tables in the schedules to this Direction for the corresponding period in column 3 of the tables, from the corresponding obligation to comply with the criteria of the National Electricity Transmission System Security and Quality of Supply Standard ("NETS SQSS")<sup>17</sup> set out in column 2 of the tables.
- 4. This derogation is conditional upon:
  - a. the derogations for the B1 and Cheviot boundaries remaining in effect 18
  - b. the transmission licensees (where relevant in conjunction with relevant distribution licensees) facilitating the connection of the second tranche of generation in the timescales currently anticipated, or similar generation with similar impacts. For the avoidance of doubt, should the licensees identify changes to the generation background that would significantly affect the extent of the non-compliance identified in the context of this derogation, and/or the impacts NGET has identified, we expect the relevant licensee to seek additional derogation if appropriate;
  - c. SHETL providing in a timely manner to NGET all necessary information to enable NGET to provide to Ofgem six months after the date this derogation is granted (and every 6 months thereafter) a report on the impact of the derogation. NGET's report shall set out:
    - the operational measures NGET is taking to manage the system in the areas to which derogation applies;
    - o the commercial actions NGET is taking;
    - the incremental costs and benefits related to the generation connecting early under this derogation, arising in the preceding 6 month period; and
       as above, forecast for the following 12 month period;
  - d. NGET continuing to be able to operate the system in accordance with the requirements of chapter 5 of the NETS SQSS. We note that NGET has not identified the need for derogation against chapter 5 of the NETS SQSS and assesses that it can manage the system. We also note that NGET is required by its licence to procure balancing measures efficiently, and by the Electricity Act to operate the system efficiently;

 $^{18}$  Both the derogation 2007 (which renewed the 2005 derogation) and the further derogation granted on 2 July 2010.

7 of 9

<sup>&</sup>lt;sup>17</sup> The current version of the NETS SQSS is version 2. It is intended that this derogation will apply to any subsequent versions of the NETS SQSS subject to the terms of this Direction.

- e. NGET (and where relevant, distribution licensees) having in place appropriate (and efficient) measures to mitigate the impacts of the non-compliance;
- f. if appropriate, transmission licensees seeking further derogation in relation to subsequent tranches, identifying the further incremental impacts; and
- g. NGET and SHETL keeping the implications of the derogation on constraints costs under review and informing Ofgem of changes to the overall generation background in the area, which may result in us revisiting this derogation and considering what, if any, conditions it may be appropriate to apply to generation connecting in the area (both existing and future).
- 5. This Direction shall have immediate effect and shall remain in effect until such time as the Authority shall revoke or vary the Direction in writing upon reasonable notice.

Dated: 14 July 2010

SIGNED on behalf of the Authority by

Stuart Cook Senior Partner

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Authorised for that purpose by the Gas and Electricity Markets Authority

## **SCHEDULE 1: Western Isles circuits**

# TABLE - Relief Granted in respect of Connection Points on the Licensee's Transmission System

1	2	3	4				
PART OF THE TRANSMISSION	NATURE OF RELIEF	DEROGATION PERIOD	DETAILED DESCRIPTION OF RELIEF GRANTED				
SYSTEM FOR WHICH RELIEF IS GIVEN			ISSUE	INTERIM SOLUTION	LONG TERM SOLUTION		
Skye and Lochaber 132kV circuits comprising; (i) 132kV single circuit between Dunvegan and Edinbane (ED1). (ii) 132kV single circuit between Edinbane and Broadford (BE1). (iii) 132kV single circuit between Broadford and Quoich (QB1). (iv) 132kV single circuit between Quoich and Tee with Fort Augustus /Fort William circuit (FQ). (v) 132kV double circuit between Fort Augustus and Fort William (FFE/FFW).	National Electricity Transmission System Security and Quality of Supply Standard ("NETS SQSS") Generation Connection Criteria Applicable to the Onshore Transmission System Paragraphs 2.5 – 2.13	Indefinite, subject to conditions set out in paragraph 4 of this direction.	Unacceptable overloading of following circuits for relevant conditions:  Pre-fault power flows on the 132 kV circuit in Skye: DA/ED1/BE1/Q B1/FQ  Post-fault power flows for single circuit fault outage on 132kV OHL between Fort William and Fort Augustus: FFE/FFW	System Operator operational measures in operational timescales in accordance with section 5 of the NETS SQSS.	Transmission system reinforcements works:  (i) HVDC link between Western Isles and Beauly, currently expected to complete by 2013. (ii) Remove Skye link from Fort William/Fort Augustus circuit (FFW) by either (a) constructing around 9km of 132kV single circuit wood pole overhead line between Fort Augustus and the Tee (estimated completion 2015), or (b) rebuilding around 9km of the double circuit tower route between Fort Augustus and the Tee with heavy duty 132kV OHL (estimated completion 2015). (iii) Rebuild the 132kV Fort Augustus to Fort William overhead line to heavy duty 132kV construction, estimated completion 2017.		