NSL Access Rules and Charging Methodology

Preamble

National Grid NSL Limited (hereinafter "NGNSL") is the GB certified TSO and Interconnector Licence holder which will be the joint owner and operator of an HVDC Interconnector between GB and Norway ("North Sea Link", or "NSL").

NSL is a 1400MW Interconnector, connecting between Blyth, Northumberland in GB and Kvilldal in Norway. NGNSL's partner for the ownership and operation of NSL is Statnett, the Norwegian national TSO.

This document contains NGNSL's Access Rules for Day Ahead NSL capacity allocation (Part 1 within this document) and Charging Methodology (Part 2), both of which are required under NGNSL's Interconnector Licence.

Part 1 – NSL ACCESS RULES

1. INTRODUCTION

1.1. This Part 1 represents the Access Rules which NGNSL is required to prepare under Condition 11A of the Interconnector Licence (the "Licence").

1.2. These Access Rules shall become effective upon such date as notified by NGNSL, following approval by the Authority in accordance with Condition 11A (Para 7) of the Licence.

1.3. Future amendment of these Access Rules shall follow the process as described in Condition 11A (Paras 10-13) of the Licence.

1.4. Capitalised terms not otherwise defined in these Access Rules shall the meaning used in applicable law.

2. SCOPE

2.1. These Access Rules relate to Day Ahead capacity allocation on the NSL Interconnector, for the situation whereby NSL is not a participant in the Internal Energy Market of the European Union, in particular not participating in Single Day Ahead Coupling. If developments to applicable law require an amendment to these Access Rules NGNSL will propose modifications in future as necessary.

2.2. NGNSL (in conjunction with Statnett as applicable) may introduce additional access rules relevant to other timescales, such as for Long Term or Intraday. Such potential future additional Access Rules may either take the form of an amendment to these Access Rules, or of an additional document to co-exist with these Access Rules, as necessary.

3. DAY AHEAD CAPACITY ALLOCATION

3.1. NGNSL (and Statnett) will allocate Day Ahead capacity via an implicit auction mechanism within the day ahead timeframe, which will couple the Day Ahead markets of GB and the NO2 Bidding Zone in Norway. The implicit auction process will be run using an algorithm which will be developed and maintained by NGNSL's designated power exchange (as detailed on NGNSL's website), with the design principle of matching power orders between market participants utilising NGNSL capacity. The requirements for the algorithm utilised for GB-NO2 implicit auctions are described in Annex 1.

3.2. The Day Ahead implicit auction will be run in respect of each hour in the period starting at 23.00 (UK local time) on D-1 and ending at 22.59 (UK local time) on Day D and in order to

3.3. participate in the GB-NO2 implicit auctions, market participants will need to register as a member of NGNSL's designated power exchange (and will therefore be subject to such contractual terms, conditions and obligations as are required by such power exchange). From a market participant perspective all aspects of the process (including legal rights and liabilities) will be managed via its interface with such designated power exchange, including (without limitation) collateral requirements, contractual terms and conditions, bid submission, auction timing, results communication and financial settlement.

3.4. Given that the GB and NO2 markets operate in different currencies (GBP and Euro respectively), a daily foreign exchange rate will be utilised within cross-border matching.

3.5. For any hours in which there is a congested result the net surplus of income resulting from the settlement process, commonly termed congestion rent, shall be paid as revenue to NGNSL and Statnett.

3.6. NSL will be subject to transmission losses and also a ramping constraint that limits the step-change in NSL flow between consecutive hours. The values of loss factor and ramping constraint will be published on NGNSL's website, and shall be used as input parameters to the Algorithm which the auction results will respect.

3.7. Allocated NSL Day Ahead capacity shall be physically firm, from the point at which final results are notified to market participants.

3.8. NGNSL shall ensure that auction results shall be validated such that manifest errors will be identified.

3.9. In the event of technical problems, force majeure, a change in the available NSL capacity, or erroneous auction results, an NSL implicit auction may be modified, postponed or cancelled, whether or not it has already started, and at any time up to the notification of final results.

3.10. In the event of an auction postponement as referred to in Rule 3.8, NGNSL will attempt to re-schedule the auction for later in the same day, unless the underlying cause of the postponement cannot be overcome in which case the auction will be cancelled.

3.11. All operational communications to market participants for all matters relating to Day Ahead auctions will be made by NGNSL's designated power exchange.

3.12. In the event of future market developments (which may include the expansion of the NG NSL implicit auction described in this Rule 3 to additional power exchanges) or change in applicable law then NGNSL may modify these Access Rules accordingly.

4. CAPACITY CALCULATION

The value of NSL capacity that NGNSL will make available to the implicit auctions will be the maximum MW capability of the interconnector that is technically available for service for the time period relevant to the auction. This capacity value may be reduced by either the GB or Norwegian System Operators (acting in accordance with applicable law) if necessary in order to maintain onshore system security.

5. ANCILLARY SERVICES

5.1. NGNSL will make available to the GB System Operator the mandatory ancillary services as set out in the Grid Code, and the ancillary services required by its Bi-lateral Connection Agreement.

5.2. NGNSL may consider the provision of other commercial ancillary services that may be of interest to the GB System Operator from time to time.

6. GENERAL

6.1. These Access Rules are solely intended to satisfy NGNSL's Licence obligations and shall not be construed or interpreted as creating any legal relationship or liability between NGNSL and any third party.

ANNEX 1

ALGORITHM DESCRIPTION

1. The GB-NO2 implicit auction algorithm shall produce results in a manner which:

(a) aims at maximising the combined economic surplus for the GB and NO2 Bidding Zones for the next trading day;

(b) uses the marginal pricing principle according to which:

- all orders in GB accepted by the algorithm will have the same price per hour,
- all orders in NO2 accepted by the algorithm will have the same price per hour;

(c) facilitates efficient, fair and orderly price formation;

(d) respects available NSL capacity, loss-factor and ramping constraint

(e) is repeatable.

2. The GB-NO2 implicit auction algorithm shall produce at least the following results simultaneously for each hour:

(a) market prices (€/MWh) for the GB and NO2 bidding zones.

(b) MW Flow on NSL.

3. The implicit auction algorithm shall accommodate orders covering one hour and/or multiple hours.

4. Market participant orders used in the implicit auction algorithm shall be anonymised (with respect to other market participants) and processed in a non-discriminatory way.

5. Any data utilised in or produced by the implicit auction algorithm shall be available to NG NSL, Statnett and their designated power exchange in order to ensure the correct operation of the algorithm in accordance with these Access Rules.

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Part 2 - NSL CHARGING METHODOLOGY

1. INTRODUCTION

1.1. This Part 2 represents the Charging Methodology which NGNSL is required to prepare under Condition 10 of the Interconnector Licence (the "Licence").

1.2. This Charging Methodology shall become effective upon such date as notified by NGNSL, following approval by the Authority in accordance with Condition 10 (Para 7) of the Licence.

1.3. Future amendment of this Charging Methodology shall follow the process as described in Condition 10 (Paras 11-14) of the Licence.

2. CHARGING METHODOLOGY

2.1 The allocation process for NSL capacity will be solely via implicit auctions at the Day Ahead stage. Market participants' means of accessing NGNSL capacity will be via its designated power exchange in GB and Norway. NGNSL (and its partner, Statnett) have appointed a power exchange to facilitate the implicit auction process. NGNSL will notify of the designated power exchange via its website.

2.2 No charges are levied by NGNSL (or Statnett) onto market participants for the use of NSL capacity. NGNSL (and Statnett) will receive congestion rent, on the occasions when NSL is congested, and there is a surplus of revenue generated within the settlement process.

2.3 The designated power exchange(s) may levy charges onto market participants, based on the terms of its/their exchange rules. NGNSL is not party to such arrangements and does not describe them within this Charging Methodology.

2.4 Licence Condition 10 requires NGNSL to set out the methodologies for charging for certain processes or services, as follows:

<u>Congestion Management</u>

i) NGNSL makes no charges for congestion management purposes.

<u>Ancillary Services</u>

ii) NGNSL makes available the mandatory services of Emergency Assistance, Emergency Instruction and Emergency De-Energisation Instruction.

Terms for commercial Ancillary Services may be agreed from time to time, including the means by which GB System Operator may restrict NSL's NTC for system security reasons.

iii) There are no payments made by NGNSL for the provision of ancillary services provided by users or relevant system operators.

Firmness

iv) NSL capacity allocated by the implicit auctions will be physically firm from the point at which final results are notified to market participants, and hence there are no compensation arrangements applicable in the event of planned or unplanned reductions in NTC.

3. GENERAL

3.1. This Charging Methodology is solely intended to satisfy NGNSL's Licence obligations and shall not be construed or interpreted as creating any legal relationship or liability between NGNSL and any third party.