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Cc: Transmission System Owners, Generators,
Suppliers, Traders, Consumers and Other
Interested Parties

Email: esoperformance@Ofgem.gov.uk

Date: 23 August 2021

Dear colleagues,

Decision to grant the Electricity System Operator a derogation from Standard Licence Condition C28.4(h)(i) for Net Transfer Capacity.

On 18 June 2021, we¹ received a request from the Electricity System Operator ("ESO") for a derogation from the requirements of Standard Licence Condition ("SLC")² C28 to allow procurement of a non-frequency balancing service, Net Transfer Capacity ("NTC"), following non-market-based procedures.

This letter sets out our decision to grant the ESO a temporary derogation under our powers as described in Part C of SLC C28, and also outlines the necessary next steps to be taken.

Background

The ESO is responsible for maintaining the security of the electricity system. There are certain conditions and constraints that the ESO must work within, including protection of the system (through procurement of reserve energy) against the so-called 'largest loss',³ and thermal constraints.

¹ The terms "we", "us", "our", "Ofgem" and "the Authority" are used interchangeably in this document and refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

² The ESO's Standard Licence Conditions can be found at:
<https://epr.ofgem.gov.uk/Content/Documents/Electricity%20transmission%20full%20set%20of%20consolidated%20standard%20licence%20conditions%20-%20Current%20Version.pdf>

³ Largest loss events refer to situations where the single largest connected generation or demand site unexpectedly disconnects from the network.

Interconnectors (“ICs”) between the Great Britain (“GB”) synchronous area and other European countries can represent large electricity flows, and may, at a given time, present large losses to the system, either from importing or exporting electricity. The ESO is proposing that NTC⁴ be used to manage the amount of energy flowing across the ICs by setting a maximum transfer capacity⁵ which is less than the rated capacity determined at that point by the IC owner (which may be considered the gross transfer capacity). In this manner, we understand NTC to be a non-frequency balancing product akin to Intraday Trading Limits (“ITLs”) already in use by the ESO for ICs. NTC introduces a new commercial methodology and compensation arrangement for IC owners but is a similar technical mechanism to ITLs (which offered no financial compensation to IC owners).⁶ We understand that the fundamental aim of the commercial methodology developed with IC owners is to keep ICs ‘whole’, that is, ICs do not lose nor gain from NTC payments. We note that NTC is proposed to be a last resort tool to ensure system security, and used on a temporary basis ahead of a methodology for capacity calculations as part of the EU-UK Trade and Cooperation Agreement (“TCA”) being established.⁷ We also note that NGESO's Dynamic Containment and the Accelerated loss of Mains programmes are expected to significantly reduce the occurrences where NTC will need to be used and we expect NGESO to report information on this.

Under its transmission licence, condition C28.4(h)(i) requires the ESO to ensure that the procurement of balancing services is subject to transparent, non-discriminatory and market-based procedures. The ESO, in agreement with the relevant IC owners, has established that it cannot procure NTC following market-based procedures, and hence the ESO’s procurement of NTC will not comply with its licence condition. The ESO has applied for a derogation against this requirement under SLC C28.9, whereby the Authority has the power to derogate having determined that market-based provision is ‘economically not efficient’.

Reasons for our Decision

We have reviewed the request submitted to us by the ESO in line with the requirements of SLC C28 and our statutory duties. We have also engaged with the ESO to clarify our

⁴ The agreed methodology for NTC is available at: <https://www.nationalgrideso.com/document/203726/download>

⁵ Note that the actual limit on the IC capacity may be set by the connecting Transmission System Operator, and the NTC methodology details how this situation should be dealt with in terms of compensation to the Interconnector.

⁶ In addition to ITLs having no associated financial compensation mechanism, another difference between that tool and NTC is that NTC can be applied to intraday and day-ahead markets (where no intraday product is available), where ITLs can only be applied at intraday time scales.

⁷ The TCA can be accessed at: https://ec.europa.eu/info/sites/default/files/draft_eu-uk_trade_and_cooperation_agreement.pdf

understanding of the rationale for the request for derogation. When assessing the proposal from the ESO for the derogation from following market-based procedures for procuring NTC, we considered:

a) Availability to the ESO of alternative actions

The ESO needs NTC to manage system security where there are frequency (also termed rate of change of frequency ("RoCoF")), thermal, or margin constraints.

To address system RoCoF limitations, the ESO will primarily attempt to reduce the size of the largest credible loss to the system. There are feasible projected situations where ICs will present the largest loss to the system, and due to the bi-directional nature of ICs, this could be the largest demand or largest supply loss. In order to reduce the largest loss, the ESO will normally take actions in the balancing mechanism ("BM") or use other trading options, before resorting to contractual options such as de-load contracts. It is noted that BM actions are not currently available for ICs, and so this option is not a solution in situations where an IC presents the largest credible loss.

Should the ESO be unable to reduce the size of the largest credible loss through the actions described above, it instead endeavours to increase the amount of response held to contain the system frequency in the event of that loss occurring. The ESO indicated to us possible scenarios where the largest credible loss could cause a system frequency change that occurs more quickly than response could react to, and if the system inertia is low, this could become too large to contain. The ESO also stated that it is difficult and expensive to procure appropriate response units at the volume required for losses of the size considered under NTC. The ESO also expressed that securing inertia to meet the credible system loss presented by ICs can be difficult and excessively costly.

We understand that the ESO has projected a reduced requirement for NTC due to work being undertaken in line with the policies outlined in their Frequency Risk and Control Report ("FRCR"). As per the FRCR, the ESO expects an increase in Dynamic Containment ("DC") volumes to assist in managing potential large system losses. However, as the ESO does not have control over the volume of response entered into the DC market, it believes that NTC is still required as a back-up option.

We accept that the ESO currently has few feasible alternative actions to NTC. We further accept that these alternative actions are often uneconomic due to the volume required to secure against large credible losses. However, we understand that whenever

feasible, where economic alternative actions are available to the ESO, these will be taken as priority over the use of NTC.

We note that the ESO states in its Procurement Guidelines⁸ that it does not plan to procure new commercial ancillary services (such as NTC) outside of competitive markets, and that any such contracts should be minimised. Hence, we further expect that the ESO will use NTC as a tool of last resort, and that it will work proactively to develop the necessary market-based alternative tool.

We also note that the ESO is required, through the TCA, to maximise the level of capacity available on ICs (while ensuring system security and efficiency), and we therefore expect that the ESO will use NTC accordingly in order to adhere to this requirement.

b) Evidence that market-based procedures are not economically efficient

The main argument put to us by the ESO that market-based procedures are not economically efficient is the locational nature of the system security problem that NTC solves. In the majority of cases, particularly those relating to a 'largest loss' system constraint, only one IC can solve the issue (that is, the IC that poses the largest loss). Hence, establishing a market for this provision would not be beneficial to the ESO or to consumers.

We agree with the ESO that the locational nature of NTC requirements significantly limits the suitability of a market-based procurement at this time.

c) Consideration of market-based signals within the procurement of NTC

We believe the ESO, working in collaboration with IC owners, has developed a commercial methodology of compensation that provides a good estimate of the value that the market would place on NTC. While this does not replace market-based procedures for procurement, we believe that this method of using market-based signals to calculate payments will represent the value of NTC more effectively than alternatives such as pre-determined fixed payments or adjustment factors would.

⁸ The Procurement Guidelines statement is a document published in accordance with SLC C16 and describes the types of balancing services which the ESO intends to procure.

Further, we understand that the fundamental aim of the commercial methodology is to keep ICs 'whole', that is, ICs do not lose nor gain from NTC payments. Therefore, we believe that this will minimise the financial impact on GB consumers.

Decision

Based on our analysis of the information submitted to us by the ESO and the supporting economic analysis, we believe that NTC will be critical to ensuring operational security. As we expect NTC to be used as an interim solution only, we hereby:

- grant the ESO a derogation from the requirement to procure NTC using market-based procedures in accordance with SLC C28.9 until the earliest of the following dates:
 - i) 1 May 2023; or
 - ii) the date when a methodology for capacity calculations as part of the TCA is established.

Our decision to grant the ESO a derogation from the requirement to procure non-frequency balancing services using market-based procedures from this requirement is effective immediately. The backstop date of 1 May 2023 aligns with publication of the Procurement Guidelines Report in accordance with SLC C16.5. This will mean that NTC will have been procured and reported over a full regulatory year⁹ and will thus allow us to take an informed view on the continued need for the derogation. For the duration of this derogation, we expect the ESO to report to us at least quarterly on the progress made on the TCA capacity calculation methodology.

At that time, we will review the continued need for and economic efficiency of NTC, the design, usage and costs of NTC over the period covered by this derogation, progress on the FRCR proposals, and any other relevant factors. We will also take account of the ESO's progress in developing the capacity calculation methodology required by the TCA.

If you have any questions about the contents of this letter, please contact James Hill (James.Hill@Ofgem.gov.uk).

Yours sincerely,

Alastair Owen

Senior Manager – Systems and Networks

⁹ Regulatory year means a period of twelve months beginning at the start of 1 April in any calendar year and ending at the end of 31 March in the next following calendar year.