

To: Jon Wisdom / Company Secretary
National Grid Electricity System Operator Limited
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Cc: All interested parties

Email: Charlotte.Friel@Ofgem.gov.uk

Date: 26 April 2023

Dear colleagues,

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

On 18 June 2021, we¹ received a request from the National Grid 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. We approved that request, with the derogation set to expire on 1 May 2023, with the requirement to review the need for the service beyond that date.³

On 17 February 2023, we received a request from the ESO to extend the derogation beyond 1 May 2023, as the ESO sees a continued need for NTC.

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 Our derogation decision against that initial request expired either on establishing a Capacity Calculation Methodology under the Trade and Cooperation Agreement or 1 May 2023. The Capacity Calculation Methodology was not established in these timeframes and so the date 1 Mar 2023 applied.

This letter sets out our decision to grant the ESO, for a limited period, an extension to the temporary derogation previously granted under our powers as described in Part C of SLC C28 and outlines the next steps that must be taken.

We recognise that the ESO must maintain system security. However, we are disappointed at the continued frequency of use of NTC, and that limited progress has been made to develop alternative tools in the time since the original derogation was granted. We will take this into account as part of the overall information in our upcoming assessment of ESO performance against its 2021-23 incentives framework. We understand the ESO are now making progress on alternative tools and expect going forward that NTC remains a tool available as a last resort option only.

Background

The ESO is responsible for maintaining the security of the electricity system in Great Britain ("GB"). There are certain conditions and constraints that the ESO must work within, including: protection of the system against the so-called 'largest loss',⁴ managing system thermal constraints,⁵ and ensuring sufficient operational margin.⁶

Interconnectors ("ICs") between the GB synchronous area and other European countries can represent large electricity flows. At a given time, depending on the direction and magnitude of electricity flows, ICs can present large losses to the system, either from importing electricity (generation loss) or exporting electricity (demand loss). ICs can also flow electricity into an area which is subject to a thermal constraint, for example, this might be because of a network outage in the area local to the IC's connection which limits the amount of electricity that can flow compared to under normal conditions.

The ESO maintains the position that NTC continues to be required to manage the amount of energy flowing across ICs. NTC is used to set a maximum transfer capacity which is less than the rated capacity determined at that point by the IC owner (which may be considered the gross transfer capacity).⁷

In this way, NTC is similar to a previous tool, Interconnector Trading Limits (ITLs). However, whereas ITLs are not subject to compensation, NTC operates under a commercial

⁴ Largest loss events refer to situations where the single largest connected generation or demand site unexpectedly disconnects from the network. The ESO must control frequency to within set limits when this occurs.

⁵ Thermal constraints represent the limit of power that can flow from one region to another over the network due to equipment capability / maximum capacity.

⁶ Operating margin is the available spare generation capacity over that needed to meet demand.

⁷ Note that the actual limit on the IC capacity may be set by the connecting Transmission System Operator if they apply a restriction greater than the ESO for the same time period.

compensation methodology⁸ which aims to ensure that IC owners are kept whole.⁹ We note that a further difference between NTC and ITLs is that ITLs can only be applied to unallocated capacity at the intraday stage, whereas NTC can be applied to both allocated¹⁰ and unallocated capacity, and this can occur at either the intraday stage or the day-ahead stage (though only where no intraday service exists for a certain interconnector). We understand that ITLs remain the tool in place on several existing interconnectors, but that the preference of the ESO is to transition all ICs (existing and future) onto NTC.

Condition C28.4(h)(i) of its transmission licence 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 this 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’.

We note our expectation that NTC is a last resort tool to ensure system security,¹¹ used on a temporary basis ahead of a methodology for capacity calculations which is being developed under the EU-UK Trade and Cooperation Agreement (“TCA”).¹²

The ESO’s request for extension of the derogation from the requirements of C28.4 for NTC was submitted on 17 February 2023, and the ESO subsequently provided further information in support of their request.

Decision rationale

We have reviewed the request and supplementary information submitted to us in line with the requirements of SLC C28 and our statutory duties. We have also engaged with the ESO to clarify our understanding of the rationale for the request for extension of the derogation due to expire on 1 May 2023. In making this decision, we considered:

⁸ The current version of the NTC commercial compensation methodology also includes the principles of use for NTC and can be accessed at: <https://www.nationalgrideso.com/electricity-transmission/document/203726/download>

⁹ Here ‘kept whole’ means there is a no loss – no gain principle, and therefore NGESO may need to pay ICs, or ICs may need to pay back to the ESO (on behalf of GB consumers), as detailed in the NTC commercial compensation methodology.

¹⁰ The NTC commercial compensation methodology sets out that allocated capacity which has been nominated long-term is to be viewed as firm, and hence would not have restrictions applied.

¹¹ By ‘last resort tool’, we understand this to mean that NTC should only be applied where other market-based business as usual tools are not available or have proven insufficient to ensure system security, accounting for the difference in timing of different actions and the information that the ESO has available at those times. Our expectation is that NTCs are applied on an as-needed basis, which should not be routine.

¹² The TCA can be accessed here:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/982648/TS_8_2021_UK_EU_EAEC_Trade_and_Cooperation_Agreement.pdf

i. the continued need for the ESO to have a tool of last resort for IC capacity management

We recognise the need for the ESO to ensure system security for the GB synchronous area. We also recognise that individual ICs can represent large generation or demand sources which can therefore need managing to ensure system security. We understand that certain system conditions, which vary with time and are outside of the ESO's control¹³, can influence the volume of IC flow (in either direction) that represents a system security concern.

However, we are disappointed that the ESO remained in a position whereby they needed to regularly apply a tool of last resort to ensure system security for the period covered by our previous derogation. We expect the ESO to reduce the use of tools procured through non-market-based procedures¹⁴ in favour of bankable market-based balancing services that indicate the true costs and opportunities of keeping the system balanced and secure (ie reducing both the required frequency of application and volume of restrictions of NTC).

The ESO makes the case that until a Capacity Calculation Methodology is agreed under the TCA, they foresee a need for NTC as a continued tool of last resort. We understand that the ESO cannot manage IC flows in a firm manner without an NTC option as a last resort, but our view is that this should only be used *in extremis*.

ii. availability of alternative actions to the ESO

In general, we expect the ESO to take actions that are market-based (eg, procuring frequency response and inertia to manage largest loss risks) and procured close-to-real time to resolve system issues. We also understand that the ESO often needs to make decisions on whether to call on tools such as NTC at times where information available is based, at least partly, on forecasts. The ESO should only use NTCs where they foresee that alternative options will not outturn sufficiently to provide system security.

We expect that the ESO identifies risks to system security and develops market-based options for managing them ahead of need, wherever feasible. We recognise that on

¹³ This includes factors such as amount of GB connected wind generation, system inertia levels and GB network outages.

¹⁴ We set out in our Final Determinations for the forthcoming two-year assessment period under the ESO's RIIIO-2 incentive framework that this will be one criterion which we will monitor and use to assess ESO performance. Our Final Determination can be accessed at: <https://www.ofgem.gov.uk/publications/business-plan-2-final-determinations-electricity-system-operator>

occasion, system risks may arise before such tools can be put in place and tools such as NTC may be needed as interim solutions, but the ESO should continue working to develop new and existing services to ensure system security such that they do not rely routinely on non-market-based tools and / or tools of last resort.

However, we recognise that these alternative actions may not provide a firm option for managing system security, and therefore it is prudent for the ESO to have tools such as NTC available to provide a firm option to managing system security for use as a last resort option when necessary.

iii. whether procuring NTC using market-based procedures is 'not economically efficient'

The ESO explained that the system issue which NTC solves can often only be achieved through the application of NTC restriction to a specific interconnector. The ESO argues that as there are few (or in some cases only one) providers who can bid into any such market, there would be no downwards pressure on costs due to lack of competition in the market. Therefore the cost to establish a market for NTC would be unrecoverable and thus inefficient.

We generally agree with the ESO that, at this point in time, a market-based approach to NTC procurement would not be economically efficient. We note that the NTC commercial compensation methodology attempts to recreate the market value of any restricted capacity, and we agree that this is a good principle as it uses a proxy for market value on the restricted capacity, and intends to prevent ICs from losing or gaining through NTC application.

However, we expect the ESO to keep this efficiency under review, especially as more ICs connect to the system. Particularly, we consider that the application of NTC in some instances¹⁵ could be applied through a market-based approach. Under such circumstances, it is important that an equitable application of necessary restrictions be applied across relevant ICs, which we believe could be reasonably achieved through a market-based design.

iv. the suitability of the NTC commercial compensation methodology

The ESO has a commercial compensation methodology, which explains how interconnectors are kept whole following NTC application. We believe that a

¹⁵ Such as to resolve thermal constraints in situations where several ICs using NTC methodology are connected to the system in similar locations.

methodology that is clear and fair is important in all ESO balancing services. We deem a make-whole approach fair for this service based on current information.

When the ESO originally formed the NTC commercial compensation methodology, they consulted with relevant parties. At that time, NTC was viewed as an interim measure to be used during the development stage of the Capacity Calculation Methodology. However, due to delays in development of that Capacity Calculation Methodology, the ESO states that it requires NTC for a longer period than originally envisaged.

We consider that the NTC commercial compensation methodology was originally fit for purpose. However, we note significant stakeholder feedback that the make-whole approach may not work completely in practice and that there is a lack of clarity on some aspects, including the principles of use.

We have not seen evidence that the NTC commercial compensation methodology is causing major inefficiencies, and we note that it was consulted on when originally introduced. Given our agreement that the ESO requires this tool for system security, we thereby confirm that the NTC commercial compensation methodology can continue to be followed from 1 May 2023, in line with the requirement of C28.4(i)(ii). However, in light of the continued need for the NTC tool, uncertainty over when a Capacity Calculation Methodology might replace it, and recent stakeholder feedback, we expect the ESO to consult again with relevant stakeholders on the suitability of the NTC commercial compensation methodology. **This process of re-consultation should be completed in advance of the expiry of this decision to grant a derogation extension.**

We note that it is our expectation that the ESO maintains efficient procurement of balancing services, and therefore should regularly and proactively engage with stakeholders to ensure processes are working and providing correct market incentives.

v. the transparency around the use of NTC

When the ESO introduced the NTC tool in 2021, they put forward changes to the documentation required under SLC C16 of their transmission licence, and we provided a decision¹⁶ agreeing that such changes aided the transparency of ESO's procurement strategy. The ESO subsequently added content to these documents in their 2023/24

¹⁶ Our decision on the inclusion of NTC within the SLC C16 statements can be accessed here: <https://www.ofgem.gov.uk/publications/decision-use-our-power-direction-relation-mid-term-revision-ngeso-procurement-guidelines-statement-2021-2022>

annual update of the documents, and again, we provided a decision¹⁷ which supported the introduction of those changes as beneficial to the clarity around NTC procurement and where NTC sits within the ESO's balancing principles. However, as also noted in that decision, we expect the ESO to significantly improve transparency to ensure market confidence that NTC is being procured in a consistent, fair, and non-discriminatory manner.

We noted disappointment at the length of time it took the ESO to provide close-to-real time reporting of NTC on its data portal. We have engaged with the ESO to express that while close-to-real time reporting is now being provided, there is still room for improvement. As the ESO decides to apply an NTC restriction for one of three system security reasons (securing largest system loss, managing thermal constraints, or ensuring sufficient margin), it is our view that at least this level of detail should be available to all market participants close-to-real time. The ESO has committed to providing this additional level of information over summer 2023. We expect the ESO to adhere to the requirements set out around information reporting, such as under SLC C28.4(e), for all balancing services that it procures.

We encourage the ESO to seek out additional methods of improving NTC transparency, such as including reporting of NTC application within the weekly Operational Transparency Forum (which may include speaking to reasons for application and cost implications) and adding NTC (and ITLs) to the ESO's Order of Actions list.¹⁸

Decision and next steps

We accept the ESO's position that NTC is currently required as a tool of last resort for ensuring system security and understand the restrictions faced in procuring this tool efficiently using market-based procedures, therefore we hereby:

- grant the ESO an extension to the derogation from the requirement to procure NTC using market-based procedures under SLC C28.4(h)(i), in accordance with SLC C28.9.

Our decision to derogate the ESO from this requirement of SLC C28.4 is effective immediately. The derogation is **valid until 30 September 2023**, ahead of which we

¹⁷ Our decision on the ESO's updates to the SLC C16 statements for 2023/24 can be accessed here: <https://www.ofgem.gov.uk/publications/decision-use-our-power-direction-relation-annual-revision-national-grid-electricity-system-operators-c16-statements-2023-24-balancing-reserve-and-local-constraint-market>

¹⁸ The ESO's Order of Actions was published mainly to provide clarity over winter 2022/23 for use of ESO's winter contingency measures: Winter Contingency Service and Demand Flexibility Service. The 2022/23 document can be accessed here: <https://www.nationalgrideso.com/document/268116/download>

expect the ESO to re-evaluate the continued need for NTC, and if so determining that it is still needed, present a case for further extension of this derogation, including in any request at least the following information:

- evidence, including views of consulted stakeholders, that the NTC commercial compensation methodology (which may have been modified by that time) is clear and fit for purpose, leaving no significant detriment to any party;
- a breakdown of the costs, reasons and locations of use of NTC, including analysis of pertinent features of NTC use and how application of NTC has been minimised; and
- the ESO's plan to continue to reduce the size and frequency of NTC application, driven mainly by development of market-based alternative options, where required.

The ESO should urgently revisit the NTC commercial compensation methodology, consult with appropriate parties, and address any shortcomings identified, to be re-agreed with the Authority as necessary. We also expect the ESO to take immediate steps to improve transparency around NTC application.

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

Yours sincerely,

Charlotte Friel

Deputy Director – Market Operations and Signals

For and on behalf of the Gas and Electricity Markets Authority