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Uniform Network Code (UNC) Derogation: Hydrogen Blending: An NTS Transportation and Power Station Consumption Demonstration (D0001)

Decision: The Authority[1] directs this Derogation to be granted[2]

Target audience: UNC Panel, Parties to the UNC and other interested parties

Date of publication: 26 September 2025

Implementation date: Commencement of the trial.

Background

On 2 December 2024, National Gas Transmission (NGT) raised UNC Derogation D0001: Hydrogen Blending: An NTS Transportation and Power Station Consumption Demonstration. Following discussion by UNC Panel and formal Consultation a Final Derogation Report (FDR) was submitted to Ofgem on 20 February 2025, along with the Panel recommendation to approve.

This Derogation seeks to remove potential UNC constraints to demonstrate the safe transportation and acceptance of blended gas on the NTS and at Brigg power station, which aims to meaningfully contribute towards Net Zero Development as defined in the Gas Transporters (GT) Licence Special Condition 1.1, Part B, "Definitions":

> Net Zero Development means a change in circumstances related to the achievement of the Net Zero Carbon Targets that is:
>
> (c) the successful trial of new technologies or other technological advances;
> (d) a change in the pace or nature of the uptake of low carbon technologies.

[1] References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day-to-day work. This decision is made by or on behalf of GEMA.
[2] This document is notice of the reasons for this decision as required by section 38A of the Gas Act 1986.

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The derogation proposal

This Derogation proposal would temporarily disapply specific provisions of the UNC for the purposes of trialling blending as a low carbon technology and facilitator of net zero, by demonstrating its use on the NTS and acceptance by Brigg power station.

During the trial, a Shipper User would operate at the new entry connection point to flow 16,000 kWh of hydrogen onto the NTS. The UNC does not permit Shippers to enter gas without a Network Entry Agreement (NEA) in place (UNC TPD I 1.3.1) – a NEA constituting a contract between a Delivery Facility Operator (DFO) and a Transporter. For this trial, NGT would constitute both the DFO and the Transporter. It would therefore not be possible for a contractual agreement to be in place and so this UNC provision would need to be disapplied.

A Shipper may book capacity as per UNC Transportation Principal Document (TPD) Section B 1.2.1 and will be expected to nominate entry flows for the injected hydrogen at the new entry connection for the purposes of energy balancing. Owing to the volume of hydrogen to be delivered falling short of the 'minimum eligible amount' for NTS Entry Capacity (TPD B 2.1.3), this derogation seeks to disapply relevant sections of TPD-B (System Use and Capacity) . Specifically, Overrun Charges would be disapplied to remove unfair consequences should the relevant User not secure Capacity for the 16,000 kWh of hydrogen delivered.

The disapplication of Overrun Charges could have consequential impacts. As such, Capacity Transfers would be disapplied to prevent negative capacity trading whilst capacity Overrun Charges are switched off.

While the disapplication of the UNC definition of gas would not be required here,[3] the 2% hydrogen blend would not be compliant with Gas Safety (Management) Regulations 1996 (GS(M)R) which limits hydrogen to ≤0.1% (molar). Therefore, a temporary exemption from NGT's Safety Case would be required for the duration of the trial to ensure GT Licence and GS(M)R compliance. This would be provided by the Health and Safety Executive (HSE).

[3] Section C 3.1.1: "In the Code, unless the context otherwise requires, "gas" means any hydrocarbons or mixture of hydrocarbons and other gases consisting primarily of methane which at a temperature of 15 °C and an absolute pressure of 1.01325 bar are or is predominantly in the gaseous state"

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UNC Panel[4] recommendation

At the UNC Panel meeting on 21 February 2025, the Panel was unanimous in recommending its approval subject to full and unambiguous HSE written approval prior to implementation and on condition that all necessary interactions with the HSE have taken place and been satisfactorily concluded prior to implementation.

Our decision

We have considered the issues raised by the derogation proposal and the Final Derogation Report (FDR) dated 21 February 2025. We have considered and taken account of the responses to the industry consultation(s) on the derogation proposal which are attached to the FDR.[5] We have concluded that:

- The derogation proposal fulfils the requirements imposed under General Terms – Section B7 (Derogations) of the UNC, and the Derogation Guidance Document; and
- the derogation is consistent with our principal objective and statutory duties.[6]

Reasons for our decision

Section 7 of the UNC Derogation Guidance Document outlines a range of Supporting Documentation required for a UNC Derogation request. Specifically, the proposer must provide:

> "An assessment by the applicant that demonstrates that there are:
> - No significant risks associated with the derogation to the applying party, other relevant UNC parties or connected suppliers or end customers.
> - No avoidable adverse impacts (immediately or in the longer term) on the applying party, other relevant UNC parties or connected suppliers or end customers
> - No additional measures that could be taken to further mitigate the impact of the derogation on the applying party, other relevant UNC parties or connected suppliers

[4] The UNC Panel is established and constituted from time to time pursuant to and in accordance with the UNC Modification Rules.
[5] UNC derogation proposals, derogation reports and representations can be viewed on the Joint Office of Gas Transporters website at Joint Office of Gas Transporters
[6] The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Gas Act 1986 as amended.

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or end customers for the derogation's duration. (Or where there are additional measures, justification as to why they are not being used).

- No outstanding objections from other parties who are materially affected by the derogation.
- No competitive advantages for the applying party, arising from the derogation that cannot be addressed, that are not offset by a suitable mechanism.
- No other reasonable options to address the non-compliance (that have not been considered)."

The applicant must also provide "A comprehensive and, wherever possible, quantitative and qualitative assessment, of the impact of the derogation", including:

"Health and safety and the associated risk management and mitigation measures including:

- evidence that all necessary interactions with HSE have taken place and been concluded; and
- the applicant's safety assessment as laid out in this document."

We note that this requirement was not met before the FDR was submitted for Ofgem for decision. We have now received confirmation of the exemption from HSE and we defer to their expertise in this area and note the conditions of the Exemption Certificate. We are satisfied that all relevant criteria have been met by the proposer.

We agree that the proposal fits within the criteria of an approved UNC Derogation Use Case.[7] The hydrogen trial facilitates the pathway to net zero by seeking to demonstrate the efficacy of a methane gas power station to accept blended hydrogen and by looking to provide reassurance that methane infrastructure can operate safely and efficiently with a hydrogen blend.

Decision notice

In accordance with UNC General Terms - Section B7, the Authority has decided that the derogation proposal UNC D0001:' Hydrogen Blending: An NTS Transportation and Power Station Consumption Demonstration' should be implemented.

[7] Derogation Use Case A, which is described in the UNC Derogation Guidance as "Net Zero Innovation".

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The exemption certificate issued by HSE takes effect from 1 October and expires on 11 October, therefore the trial must begin and end within this window. As specified by the proposer, the derogation should begin on commencement of the trial and end upon its completion.

William Duff

Head of Gas and Hydrogen Systems Markets and Operations

Signed on behalf of the Authority and authorised for that purpose

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