

Modification proposal:	Uniform Network Code (UNC) 0808: Reverse Compression (UNC 0808)		
Decision:	The Authority ¹ directs this modification be made ²		
Target audience:	UNC Panel, Parties to the UNC and other interested parties		
Date of publication:	24 November 2023	Implementation date:	To be confirmed by the code administrator

Background

The injection of distributed gas is growing, and it is understood that several biomethane projects flare gas on occasion due to Distribution Network Operator (DNO) capacity constraints. Biomethane plants cannot be instantaneously turned off and the ability to flare gas is a safety measure to ensure pressure can be relieved. High gas prices can also be expected to reduce gas demand in summer months, with a consequence being additional flaring of biomethane due to capacity reduction.

It is possible to export gas from one pipeline pressure tier (eg Medium Pressure) to a higher one (eg Intermediate Pressure). This increases the ability of a DNO to accept gas, with higher pressure tiers able to accommodate additional gas more easily as it provides access to more widespread sources of demand.

The modification proposal

UNC0808 was raised by Barrow Shipping Ltd (the Proposer). The proposed modification (the Modification) will enable a DNO and an Independent Gas Transporter (IGT) to enter into a

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.

bilateral 'operator to operator' agreement, enabled by the IGT Arrangements Document (IGTAD) and containing Network Entry Provisions, to allow physical gas to be offtaken from a DNO by an IGT, compressed to a higher pressure, then returned to the same DNO by the IGT, through a process known as reverse compression. The exact form of the bilateral 'operator to operator' agreement would be a matter for the DNO and IGT. All the DNOs are proposing to offer reverse compression within their networks as an option and this Modification proposes to address the concept of an IGT that supports gas being injected to it as well as receiving it from a DNO. The UNC is currently silent on the concept of reverse compression via an IGT system. Enabling reverse compression will reduce the quantity of biomethane being flared, which would have an overall positive effect on the environment. Increasing biomethane supply theoretically lowers consumer prices (higher supply and unchanged demand puts downward pressure on prices), but the limited scale means any impact would be minimal. Enabling reverse compression would also reduce capacity constraints which could potentially increase the deployment of biomethane installations.

Reverse compression has zero net impact on physical flow into or out of the Total System³, other than the initial filling (commissioning) of the IGT System, which is already established in IGTAD and the DNO's associated CSEP Connection Arrangements. Neither reverse compression nor commissioning require User involvement.

The Proposer believes that ensuring an operating agreement is in place between an IGT and DNO will facilitate economic and efficient system operation through clarity and certainty around how the connected system will be operated.

UNC Panel⁴ recommendation

The UNC Panel consulted interested parties on the modification on 21 July 2023. It received 16 responses to the consultation, 13 of which supported the proposal, one offered qualified support, one provided comments and one was not in support.

³ The definition of "Total System" is established in the Transportation Principal Document (TPD) Section A1.1.1(b) [30 August 2023 Transportation Principle Document \(Consolidated, printable version\).pdf \(gasgovernance.co.uk\)](#)

⁴ The UNC Panel is established and constituted from time to time pursuant to and in accordance with the UNC Modification Rules.

At the UNC Panel meeting on 17 August 2023, a majority (11/13) of the UNC Panel considered that UNC0808 would better facilitate the UNC objectives and the Panel therefore recommended its approval. The UNC Panel agreed that the modification would better facilitate UNC Relevant Objective (b) and (d).

Our decision

We have considered the issues raised by the modification proposal and the FMR dated 17 August 2023. We have considered and taken into account the responses to the industry consultation on the modification proposal which are attached to the FMR. We have concluded that:

- implementation of the modification proposal will better facilitate the achievement of the relevant objectives of the UNC;⁵ and
- directing that the modification be made is consistent with our principal objective and statutory duties.⁶

Reasons for our decision

We consider this modification proposal will better facilitate UNC Relevant Objective (b) and (d) and has a neutral impact on the other Relevant Objectives.

(b) the coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters

The Proposer considers that the Modification will have a positive impact on Relevant Objective (b) as having an operator-to-operator agreement in place between the IGT and the DNO will support cooperation and therefore facilitate economic and efficient operation of the combined

⁵ As set out in Standard Special Condition A11(1) of the Gas Transporters Licence, available at: <https://epr.ofgem.gov.uk/Content/Documents/Standard%20Special%20Condition%20-%20PART%20A%20Consolidated%20-%20Current%20Version.pdf>

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.

pipeline system. The DNO can complete the necessary analysis of its network to determine the suitability of the gas network to facilitate the reverse compression facilities and whether the solution is appropriate. The operator-to-operator agreement would permit the DNO to stipulate site specific requirements on reverse compression facilities, to ensure the economical, efficient, and coordinated operation of the pipe-line system. Most Panel members and most consultation respondents agreed with this view.

One Panel member did not believe that the Distribution Network (DN) would be able to operate and develop an economic and efficient network with third parties owning and operating in-grid compressors, whose sole purpose is to change the flows in another DN's network. It is their belief that although it may be possible for a small number of highly bespoke projects to work both technically and operationally, such arrangements could not work everywhere. They believe that it would be uneconomical and impractical to accommodate as numbers of in-grid compression connections increase and as flows change over time across the gas grid. This Panel member supports in-grid compression as an entry capacity reinforcement option only where the host DN owns and operates such facilities itself.

We have considered the opposing view and do not believe enough evidence has been provided to support their claims. We consider that this modification would better facilitate Relevant Objective (b) as having a bi-lateral agreement in place between the DNO and IGT will open communication between the parties to ensure the injection of biomethane gas is beneficial to both parties alongside meeting net zero objectives. It enables more efficient and economic operation of the combined pipeline system to be achieved by reducing the quantity of gas being vented or flared allowing this gas to instead be used for more economic and beneficial purposes. The DNO will be aware of their network constraints and entering into an agreement with IGTs will allow them to manage their network more flexibly to optimise output.

(d) securing of effective competition:

(i) between relevant shippers;

(ii) between relevant suppliers; and/or

(iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers

The Proposer considers that this modification will have a positive impact on Relevant Objective (d) as facilitating the development of IGT connected systems that deliver reverse compression would increase the likelihood of schemes being implemented that alleviate capacity constraints and allow increased volumes of distributed gas to be injected.

Some Panel members believe that this modification increases competition between DNs and IGTs, as an IGT being able to offer reverse compression provides an alternative to direct injection into the DN system. It could also increase alternatives to dealing with just the DN as a monopoly provider (from the point of view of a connecting party or Shipper wishing to inject biomethane, for example). Having a more even playing field enhances competition.

We consider that this Modification would better facilitate Relevant Objective (d) as securing of effective competition between relevant Shippers and Suppliers by allowing injection of distributed gas that may otherwise be flared or not developed, results in increased supply being available to the market when it is economic to inject.

For the reasons set out above, we consider this Modification proposal will have a positive impact on the UNC Relevant Objectives and is consistent with our principal objective and statutory duties.

The UNC relevant Charging Methodology Objectives were also considered, and we considered the Proposers belief that there would be positive impacts for objective (c)

(c) That, so far as consistent with sub paragraphs (a) and (b), compliance with the charging methodology facilitates effective competition between gas shippers and between gas suppliers.

The Proposer believes that the modification will enable effective competition between relevant Shippers and between relevant Suppliers by allowing injection of distributed gas that may otherwise be flared or not developed, with increased supply available to the market when it is economic to inject.

We consider that this modification will have a positive impact upon relevant Charging Methodology Objective (c) as compliance with the charging methodology facilitates effective

competition between gas shippers and between gas suppliers by allowing injection of distributed gas that may otherwise be flared or not developed, increasing available supply to the market when it is economic to do so.

Decision notice

In accordance with Standard Special Condition A11 of the Gas Transporters licence, the Authority hereby directs that modification proposal UNC0808: Reverse Compression be made.

Vic Tuffen

Head of Technical Analysis & Assurance

System Planning, Engineering & Technology Directorate

Signed on behalf of the Authority and authorised for that purpose