

Modification proposal:	Uniform Network Code (UNC) 845: Enhancements to Demand Side Response (DSR) Arrangements including a D-5 Product (UNC845)		
Decision:	The Authority ¹ directs this modification ² be made		
Target audience:	UNC Panel, Parties to the UNC and other interested parties		
Date of publication:	04 August 2023	Implementation date:	07 August 2023

Background

Gas Demand Side Response (DSR) is a voluntary demand reduction scheme which is intended to reduce the likelihood, severity and duration of a gas supply emergency, in the event that one occurs, by providing a route for large consumers to receive greater financial compensation by voluntarily curtailing their demand, than if they were involuntarily curtailed during an emergency. Each year National Gas Transmission (NGT) issues an invitation to all Users³ to offer DSR quantities for the next three Winter Periods.⁴ The DSR arrangements take the form of distinct “option” and “exercise” stages with separate payments made for each.⁵ These “DSR options” would be exercised in the event that a Margins Notice or a Gas Balancing Notification was called in any of those Winter periods.⁶

As part of the UNC822 decision⁷ made in October 2022, NGT were encouraged to explore ways to broaden DSR consumer participation and maximise the volume of gas DSR. NGT raised

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

³ For the purposes of these Rules, references to a User includes a Relevant Shipper:

<https://www.gasgovernance.co.uk/sites/default/files/ggf/page/2022-11/20%20Modification%20Rules.pdf>

⁴ A ‘Winter Period’ is defined as being the period from 1st November in any year up to and including 30 April in the following year.

⁵ A “DSR Option”, as stated in the UNC TPD Section 7.1.2.(a) is defined as “a commitment from the Registered User of an eligible Supply Point to post DSR Market Offers in a particular Winter Period. “Exercise”, as stated in the UNC TPD Section 7.1.2.(d) is defined as the “acceptance of a DSR Market Offer (in accordance with paragraph 5 of Annex D-1) posted under a DSR Option”: <https://www.gasgovernance.co.uk/sites/default/files/ggf/page/2023-07/Transportation%20Principal%20Document%20%28Consolidated%2C%20printable%20version%29.pdf>

⁶ A Margins Notice is a D-1 notification, and a Gas Balancing Notification can be issued either within day or at D-1.

⁷ UNC822 Decision Letter: <https://www.ofgem.gov.uk/publications/unc822-reform-gas-demand-side-response-arrangements-decision>

UNC835R 'Review of Gas Demand Side Response Arrangements'⁸ to allow stakeholders to review the DSR arrangements and reforms⁹ to date. Feedback from industrial consumers suggested that a longer notice period would enable them to participate in DSR, as well as extending the eligibility criteria to include Class 2 consumers.¹⁰

The modification proposal

On 12 April 2023, NGT ("the Proposer") raised UNC modification UNC845: 'Enhancements to Demand Side Response (DSR) Arrangements including a D-5 Product'.¹¹ UNC845 seeks to modify the UNC to allow NGT to expand its DSR Option Invitation to include a D-5 product. This product allows eligible consumers to offer demand reduction with a 5-day lead time from Day 'D'.¹² NGT would have the ability to enter into such arrangements and exercise such options at D-5 in respect of day D if it forecasts a supply deficit on day D of 14 mcm/d (million cubic metres per day) or greater.¹³ The consumer would provide this demand response on day D.¹⁴

The Proposer also aims to make several enhancements to the current DSR product. These include:

- Allowing Class 2 consumers to submit DSR Market and DSR Options offers via their shipper, alongside Class 1 consumers
- Allowing Users/Consumers to specify a minimum quantity for demand reduction
- Allowing Users/Consumers to specify restrictions to the days on which a DSR option can be exercised
- Clarifying the Users' and Consumers' obligations if DSR is exercised
- Offering more options to Users/Consumers in the DSR Options tender process

⁸ UNC835R: <https://www.gasgovernance.co.uk/0835>

⁹ Reforms to DSR were made by UNC822: <https://www.ofgem.gov.uk/publications/unc822-reform-gas-demand-side-response-arrangements-decision> and UNC833: <https://www.ofgem.gov.uk/publications/unc833-and-dsr-methodology-decisions>

¹⁰ A Class 2 consumer is defined as one where the Class 1 Requirement does not apply and whereby the Registered User has elected that it should be in such Class.

¹¹ UNC845: <https://www.gasgovernance.co.uk/index.php/0845>

¹² A Day is the period from 05:00 hours on one day until 05:00 hours on the following day.

¹³ For example, if a D-5 DSR Option is exercised on gas day 16th February, the demand reduction day (D) would be the gas day 21st February.

¹⁴ For a DSR Option exercised at D-5, the start time for demand reduction shall be 0500 on gas day D with the reduction in place until the end of gas day D.

- Allowing the Proposer to assess DSR Options offers across a broader criteria, whilst maintaining price as the primary component.

UNC Panel¹⁵ recommendation

At the UNC Panel meeting on 20 July 2023, the UNC Panel voted unanimously that UNC845 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 (a) and Relevant Objective (b).

Our decision

We have considered the issues raised by the modification proposal and the Final Modification Report (FMR) dated 21 July 2023. We have considered and taken into account the responses to the industry consultation(s) on the modification proposal which are attached to the FMR.¹⁶ We have concluded that:

- implementation of the modification proposal will better facilitate the achievement of the Relevant Objectives of the UNC;¹⁷ and
- directing that the modification be made is consistent with our principal objective and statutory duties.¹⁸

Reasons for our decision

We consider this modification proposal will better facilitate UNC Relevant Objective (a) and Relevant Objective (b) and will have no impact on the other Relevant Objectives.

¹⁵ The UNC Panel is established and constituted from time to time pursuant to and in accordance with the UNC Modification Rules.

¹⁶ UNC modification proposals, modification reports and representations can be viewed on the Joint Office of Gas Transporters website at www.gasgovernance.co.uk

¹⁷ As set out in Standard Special Condition A11(1) of the Gas Transporters Licence, see: <https://epr.ofgem.gov.uk/Content/Documents/Standard%20Special%20Condition%20-%20PART%20A%20Consolidated%20-%20Current%20Version.pdf>

¹⁸ 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.

(a) the efficient and economic operation of the pipe-line system to which this licence relates

The Proposer considers that this modification will have a positive impact on Relevant Objective (a) because it will encourage further participation in DSR, which would help to mitigate the risk of a potential supply shortage escalating into a Gas Deficit Emergency (GDE).¹⁹ They also state that, should a GDE be declared and progress to Stage 2, then compulsory firm load shedding would result in disruption and inefficiency in the operation and use of the network, as some parties who would wish to be taking gas would be prevented from doing so.²⁰ Panel members shared this view and agreed that this modification would extend DSR's scope to encourage more parties, like Class 2 consumers and larger sites that may require longer notice periods to offer DSR and thereby assist in the avoidance of a GDE. Consultation respondents also agreed that the modification would have a positive impact on Relevant Objective (a), with some noting that the modification has the potential to increase DSR participation. Some consultation respondents expressed support of the process enhancements such as the option for consumers to set a base consumption limit and allowing them to specify the maximum number of times their DSR offers are called. This enables consumers to continue to use gas for critical processes.

We consider that this modification would better facilitate Relevant Objective (a) as the process enhancements proposed will clarify how consumers/shippers can participate and provide more options for participation. During the stakeholder engagement in UNC835R, some large gas users stated that they were willing to reduce their demand voluntarily but were unable to achieve such demand reduction within the timescales required by the current DSR arrangements. The introduction of a D-5 DSR product will create a route for those consumers to participate in DSR. Extending the eligibility criteria to include Class 2 consumers will also allow more daily-metered consumers to participate in the DSR market. Introducing a 'reduce to' approach will allow consumers to specify a minimum threshold that they can offer, which will encourage more consumers to participate, as they will be able to tailor their demand response to their specific needs. Overall, we consider that the changes proposed will result in a more effective DSR tool, whereby more parties can participate. This should provide NGT with

¹⁹ A Gas Deficit Emergency is a Network Gas Supply Emergency which arises as a result of a supply/demand imbalance, a transportation constraint or a potential or actual breach of a Safety Monitor.

²⁰ Stage 2 of a Gas Deficit Emergency is outlined in the UNC TPD Section Q 3.2.2.

more material volumes of demand response, which would help NGT to respond to a potential supply shortage, thereby mitigating the risk of a supply shortage escalating to a GDE.

The Proposer, some workgroup participants and consultation respondents recognised that a forecast imbalance five days in advance is subject to greater uncertainty. The demand reduction triggered at D-5 would be exercised on day D even if the market fundamentals have improved by then. This will be funded by users through balancing neutrality which may then be passed on to consumers, potentially leading to higher wholesale prices than would otherwise be the case. We recognise there is some uncertainty with forecasts five days ahead and the price of exercising D-5 offers may not be reflective of supply/demand fundamentals on gas day D. Therefore, we consider it appropriate that the volumes and prices associated with the exercise of any D-5 DSR options should be excluded from imbalance cash-out calculations. This will minimise distortions and unintended consequences on existing market arrangements.

Encouraging gas DSR quantities to be available five days in advance may provide sufficient additional system balancing volumes to help to avoid the system entering Stage 2 of a GDE. On balance, we consider that in some cases the benefit of precautionary action at D-5 outweighs the potential risk of higher wholesale prices. In addition, the DSR market will only be opened when there is a forecasted supply/demand imbalance of at least 14mcm/d, which we consider to be a sufficiently material imbalance. We also note that when selecting DSR Option Offers, the Proposer will prioritise acceptance of within-day DSR Options first, followed by D-1 Options and then D-5 Options. We think this will reduce the risks associated with D-5 DSR, as the priority will be procuring DSR closer to real-time.

(b) so far as is consistent with sub-paragraph (a), 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 this modification will have a positive impact on Relevant Objective (b) as it would encourage uptake in DSR, thus mitigating against a GDE. The Proposer states that if a GDE event occurred, in addition to firm load shedding on the NTS, Gas Distribution Networks (GDNs) may be given instructions to implement load shedding within their networks, resulting in disruption and inefficiency at the Local Distribution Zone (LDZ) level too. Panel

members agreed that the modification will have a positive impact on Relevant Objective (b) as the intended effect is to mitigate against a GDE, which can help minimise the effects on GDNs. Consultation respondents also agreed that the modification will have a positive impact on Relevant Objective (b). One respondent requested NGT to provide timely notifications once DSR is exercised at a consumer's site to manage planning and management activities of GDNs.

We consider that this modification has a positive impact on Relevant Objective (b) as it would enhance the DSR tool by reducing the barriers Users currently face to participate in DSR. The changes proposed aim to increase uptake of DSR and this may reduce the likelihood or severity of a National Gas Supply Emergency (NGSE). As a result, it may mitigate some of the consequences of a NGSE, such as enforced load shedding at the national and distribution level, which would cause disruption to the operation of the pipe-line systems. In addition, we note that there is a specific obligation on NGT to notify DNOs when DSR is offered and exercised on their respective networks. This notification and the modification proposal will ensure the coordinated and efficient operation of the combined pipeline system.

Some consultation respondents expressed concern that NGT would not notify shippers once a customer's DSR Option offer is exercised. A self-governance modification UNC852²¹ has since been raised to require the Proposer to notify relevant shippers if DSR offers are exercised. We note the concerns raised by respondents. We also note that, by asking NGT to notify shippers, there is a risk that NGT will have to do this in its capacity as the Network Emergency Coordinator (NEC)²², where the control room may be operationally occupied in preventing an incident escalating to a GDE. We suggest keeping these arrangements under review until there is clear evidence to suggest that alternative arrangements would be more efficient overall.

Further comments

Some consultation respondents raised concern over Relevant Objective (g) "*Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or*

²¹ UNC852: <https://www.gasgovernance.co.uk/0852>

²² The NEC is responsible for coordinating actions across the affected parts of the gas network to take action to prevent, as far as possible, a supply emergency developing, and where it cannot be prevented, to take timely decisions in order to minimise the safety consequences.

the Agency for the Co-operation of Energy Regulators” and whether this modification is compliant with the EU Network Code on Gas Balancing of Transmission Networks (“Balancing Code”)²³

Article 8(1) and Article 9(1)c

Articles 8(1) and 9(1)(c) of the Balancing Code state that the Transmission System Operator (TSO) can procure balancing services where short-term standardised products are not likely to provide the necessary response. NGT would have the ability to exercise D-5 offers in respect of day D if it forecasts a supply deficit on day D of 14 mcm/d or greater. The rationale for this threshold is that 13.7mcm is the target forecast error for NGT’s D-2 to D-5 reputational demand forecasting incentive and can be considered a reasonable level of uncertainty. Panel members and respondents agreed with the Proposer’s trigger level of 14mcm/d for the exercise of D-5 offers, though they recognise that there may be considerable uncertainty in both the supply and demand forecasts on day D-5. The value of DSR is for coverage against a few potential days in winter when high demand could coincide with supply problems which are not forecastable months in advance. A within-day or D-1 product would only be used at times of system stress and a D-5 product would only be used where forecast demand exceeds forecast supply by a material amount at D-5 (14mcm/d). This is likely to be when short term standardised products won’t be able to provide the necessary response. In these scenarios, if the Proposer considers that short-term standardised products may not be able to provide the necessary response, then exercising DSR offers would be sufficient in meeting the requirements of Article 8(1) and Article 9(1)(c).

Article 8(5) of the Balancing Code states that balancing services can only be used for one year, unless otherwise directed by the relevant National Regulatory Authority. As part of UNC822 which was implemented in October 2022, shippers could submit offers for Winter 2022/2023 as well as for the subsequent two Winter Periods. Our approval of UNC822 accepted DSR’s multi-year procurement approach. We note that whilst DSR is a balancing service, it is also a pre-emergency tool that NGT is required to procure (via Special Condition 9.22 of its Licence). We therefore approve the use of a multi-year approach for DSR. We

²³ Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks, now incorporated in UK law by the European Union (Withdrawal) Act 2018 and the European Union (Withdrawal Agreement) Act 2020, as amended by Schedule 2 of the Gas (Security of Supply and Network Codes) (Amendment) (EU Exit) Regulations SI 2019/531: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014R0312>

consider this would provide consumers will more revenue certainty and potentially increase participation and volumes, thereby making it a stronger pre-emergency tool. We encourage NGT to keep this under review and see if the multi-year approach is indeed useful in encouraging participation.

Article 8(6) of the Balancing Code requires the TSO to annually review its use of balancing services and evaluate whether short-term standardised products could better meet its requirements next year. There were some concerns about how the annual review of balancing services is conducted by the Proposer and how multi-year DSR activities are accounted for. NGT has confirmed that the assessment process for the annual DSR option tender constitutes the means by which this annual review is undertaken, whereby NGT will decide (subject to the threshold for Ofgem referral) the aggregate DSR quantity and amount of option fees that it wishes to accept for the forthcoming winter. Within this, if NGT already has some DSR contracted for future years, it would take that into account when deciding on the allocation from a particular tender. Furthermore, NGT is required to procure DSR (via Special Condition 9.22 of its Licence). The value of DSR is for coverage against days when high demand coincides with supply problems which are not forecastable months in advance. In these scenarios, short-term standardised products may not be able to provide the necessary response. Therefore, NGT has confirmed that, when undertaking its annual review described above, it would almost certainly procure DSR due to this uncertainty associated with Winter, as DSR is a pre-emergency tool used to mitigate against this risk.

Changes to the Gas DSR Methodology and Licence Derogations

As part of this modification, the Proposer has identified the need to make similar changes and further updates to the Gas DSR Methodology, as well as the need to derogate from some of the Proposer's Licence conditions. This ensures that the Gas DSR Methodology remains consistent with the changes proposed in UNC844 and UNC845. The Proposer has also requested several derogations from Special Condition 9.22.3 of NGT's Licence. This will enable UNC845 to be implemented in time for the upcoming DSR Options Invitation to Offer process (which starts no later than 31 August 2023). We have published our decision on the proposed changes to the DSR Methodology and Licence derogations today on our website.

Decision notice

In accordance with Standard Special Condition A11 of the Gas Transporters Licence, the Authority has decided that modification proposal UNC845: "Enhancements to Demand Side Response (DSR) Arrangements including a D-5 Product" should be made.

Maryam Khan

Head of GSO Regulation – Energy Systems Management and Security

Signed on behalf of the Authority and authorised for that purpose.