

Modification proposal:	Uniform Network Code (UNC) 504: Demand Side Response (DSR) Methodology Implementation (UNC504)		
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:	2 February 2016	Implementation date:	To be confirmed by the code administrator

Background

In 2011, we launched our Gas Security of Supply Significant Code Review (Gas SCR) to consider whether changes should be made to the gas market arrangements to enhance security of supply. On 23 September 2014 we concluded the Gas SCR³, with two key reforms. The first was to implement changes to the emergency cash-out arrangements, to unfreeze them in an emergency and incorporate the cost of interrupting domestic consumers. These changes took effect on 1 October 2015.

The second was to develop and potentially introduce a demand-side response (DSR) mechanism. During the development of our Gas SCR reforms we found substantial evidence that the gas market could benefit from large consumers reducing demand voluntarily ahead of a possible gas supply emergency.

Our changes to the emergency cash-out arrangements incentivise shippers to better secure their supplies, and one way they can do this is entering into commercial negotiations for voluntary DSR with larger consumers. There appear to be clear situations where it would be mutually beneficial for both shippers and consumers to agree to commercial interruption. However, some stakeholders expressed doubts that voluntary interruption would emerge of its own accord.

As part of the Gas SCR process, a number of stakeholders suggested the development of a centralised mechanism for DSR would be beneficial. We saw merit in a DSR mechanism if it could overcome some of the barriers identified by stakeholders, whilst not distorting or foreclosing any market for commercial DSR. As such, our Gas SCR conclusions placed an obligation on National Grid Gas, in its role as owner and operator of the gas National Transmission System, (NGG(NTS)) to develop a DSR methodology in accordance with a set of principles and in consultation with interested parties.

NGG(NTS) developed and trialled the methodology⁴, before submitting it to us for approval. On 21 September 2015 we assessed the methodology against the principles set out in NGG(NTS)'s licence, and directed them to implement it.⁵ NGG(NTS) has developed this modification to amend the UNC to incorporate the DSR mechanism.

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 <https://www.ofgem.gov.uk/publications-and-updates/gas-security-supply-significant-code-review-conclusions>

⁴ <http://www2.nationalgrid.com/UK/Industry-information/Gas-transmission-system-operations/Balancing/Gas-DSR/>

⁵ <https://www.ofgem.gov.uk/publications-and-updates/direction-national-grid-gas-plc-implement-demand-side-response-methodology>

The modification proposal

NGG(NTS) raised UNC504 to make the necessary changes to the UNC to allow the DSR mechanism to function as set out in the methodology. The methodology sets out the detail of the voluntary demand side response service. This includes:

- platform,
- product,
- eligibility,
- process for posting and accepting offers, and,
- payment and settlement arrangements.

This modification seeks to introduce the DSR mechanism into the UNC by making changes to reflect the process that would be undertaken when a Gas Deficit Warning (GDW) is called. Principally this involves:

- Defining and specifying the voluntary DSR service (in line with the methodology).
- Reflecting DSR in the trading system arrangements – by incorporating into the existing On-the-day Commodity Market (OCM) locational market.
- Incorporating payment and settlement for DSR into existing UNC processes.
- Arrangements for providing reports and information on the operation of the DSR mechanism.
- Referencing DSR in the emergency arrangements.

The proposer, NGG(NTS), considers that the modification better facilitates relevant objectives (a)⁶, (b)⁷ and (c)⁸. NGG(NTS) considers that relevant objectives (a) and (b) are better facilitated as the DSR mechanism will facilitate additional consumers reducing demand when the system is in a significant supply deficit. This additional response could improve the efficient operation of the system in these tight situations, by increasing the tools available to the NGG(NTS) as system operator. As some response may emerge from system points within Local Distribution Zones (LDZs), this could improve the efficient operation of the combined pipeline system (ie, not just the NTS).

The proposer considers that relevant objective (c) is better facilitated because it allows NGG(NTS) to meet their obligations to implement the DSR methodology, as directed by Ofgem and in accordance with Special Condition 8I⁹ of NGG(NTS)'s Gas Transporter Licence.

UNC Panel¹⁰ recommendation

At the UNC Panel meeting on 17 December 2015, a majority of the UNC Panel considered that UNC504 would better facilitate the UNC objectives and the Panel therefore recommended its approval. The panel agreed with the proposer that implementation would better facilitate relevant objectives (a), (b) and (c).

⁶ the efficient and economic operation of the pipe-line system to which this licence relates

⁷ 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

⁸ so far as is consistent with sub-paragraphs (a) and (b), the efficient discharge of the licensee's obligations under this licence

⁹ <https://epr.ofgem.gov.uk//Content/Documents/National%20Grid%20Gas%20Plc%20-%20Special%20Conditions%20Consolidated%20-%20Current%20Version.pdf>

¹⁰ The UNC Panel is established and constituted from time to time pursuant to and in accordance with the UNC Modification Rules.

Our decision

We have considered the issues raised by the modification proposal and the Final Modification Report (FMR) dated 17 December 2015. We have considered and taken into account the responses to the industry consultation on the modification proposal which are attached to the FMR.¹¹ We have also considered the proposed legal drafting and whether it reflected the proposal. We have concluded that:

- implementation of the modification proposal will better facilitate the achievement of the relevant objectives of the UNC;¹² and
- directing that the modification be made is consistent with our principal objective and statutory duties.¹³

Reasons for our decision

We consider this modification proposal will better facilitate UNC objectives (a), (b), (c) and (e) and has a neutral impact on the other relevant objectives.

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

(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

As set out above, the proposer considers that the modification would better facilitate objectives (a) and (b) by encouraging additional DSR to come forward and so increasing the tools available to the system operator at times of system stress. All four respondents to the consultation agreed with this view.

We agree that if the mechanism brings forward additional DSR, it will improve the efficient operation of the system by making additional volumes of response available to the system operator. As set out in our work on the Gas SCR,¹⁴ this would potentially allow the system to be balanced (or the risk of an emergency reduced) more efficiently and at a lower cost than would have otherwise been the case. We agree that the potential for supply points within LDZs to be incorporated into this means that these benefits go beyond just the NTS.

(c) so far as is consistent with sub-paragraphs (a) and (b), the efficient discharge of the licensee's obligations under this licence

As set out above, the proposer considered that relevant objective (c) is better facilitated because it allows NGG(NTS) to meet its licence obligation to implement the DSR methodology. All four respondents to the consultation agreed with this view. We agree

¹¹ UNC modification proposals, modification reports and representations can be viewed on the Joint Office of Gas Transporters website at www.gasgovernance.co.uk

¹² 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>

¹³ 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.

¹⁴ <https://www.ofgem.gov.uk/publications-and-updates/gas-security-supply-significant-code-review-conclusions>

that introducing the DSR mechanism into the UNC better facilitates this relevant objective by ensuring NGG(NTS) meets its licence obligation to implement a DSR methodology. One respondent noted that the modification also proposes to use existing systems where possible, and should therefore minimise the cost of implementation. We agree that this is likely to result in a lower cost solution than an alternative involving building a new system to manage the DSR mechanism.

(e) so far as is consistent with sub-paragraphs (a) to (d), the provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards are satisfied as respects the availability of gas to their domestic customers

Neither the proposer nor respondents considered that the modification had an impact on relevant objective (e). In the GB system, these economic incentives are provided for suppliers through the cash-out arrangements and the resultant incentives these place on gas shippers to balance supply and demand.

The cost of maintaining supplies to domestic consumers is effectively the cost of the marginal unit of either supply or demand response necessary to protect supplies to these consumers. The DSR mechanism allows the cost of additional demand response from large consumers to be priced into the market. When DSR is used, it will be reflected in the cash-out arrangements and therefore in the incentives on shippers to balance supply and demand. This will improve the effectiveness of these incentives, by more accurately reflecting the cost of balancing the system by utilising DSR. This cost is effectively the cost of balancing the system in order to maintain supplies to domestic consumers. As a result, the DSR mechanism makes cash-out prices more cost reflective and so strengthens the incentive on shippers to balance their positions. This in turn improves the economic incentives on relevant suppliers to secure that the domestic customer supply security standards are met, and so better facilitates relevant objective (e).

Decision notice

In accordance with Standard Special Condition A11 of the Gas Transporters licence, the Authority hereby directs that modification proposal UNC504: *Demand Side Response (DSR) Methodology Implementation* be made.

Emma Kelso

Partner, Wholesale Markets

Signed on behalf of the Authority and authorised for that purpose