













UNC Request	At what stage is this document in the process?
<h1>UNC 083X:</h1> <h2>Review of Gas Demand Side Response Arrangements</h2>	 <p>01 Request</p> <p>02 Workgroup Report</p> <p>03 Final Modification Report</p>
<p>Purpose of Request:</p> <p>To review the Gas Demand Side Response (DSR) arrangements post implementation of Modifications 0822 ‘Reform of Gas Demand Side Arrangements’ and 0833 ‘Enabling DSR Market Offers to be made by Non-System Trading Transactions’</p>	
<p>Next Steps:</p> <p>The Proposer recommends that this Request should be assessed by a Workgroup. This Request will be presented by the Proposer to the Panel on 16 February 2023.</p>	
<p>Impacted Parties:</p> <p>High: Large industrial and commercial consumers, Shippers, Suppliers, National Grid NTS, OCM Market Operator</p> <p>Low: Distribution Network Operators</p>	
<p>Impacted Codes:</p> <p>UNC TPD, Independent Gas Transporters UNC (IGT UNC)</p>	

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4 Recommendation	12	Proposer: Phil Hobbins
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This document is a Request, which will be presented by the Proposer to the Panel on 16 February 2023.		 07966 865623
The Panel will consider the Proposer's recommendation and agree whether this Request should be referred to a Workgroup for review.		Transporter: National Grid NTS
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1 Request

Why is the Request being made?

The current Gas Demand Side Response (DSR) arrangements provide a mechanism for Users, on behalf of large gas consumers, to offer to reduce their demand in return for a payment that they define during times of either an actual or forecast national gas supply shortage. A User may post a quantity of DSR a ('DSR Market Offer') onto the On-the-Day Commodity Market (OCM), on behalf of a Consumer, when either a Margins Notice or Gas Balancing Notification is in force which National Grid NTS may accept as the only buyer in the DSR market.

Urgent Modification 0822 'Reform of Gas Demand Side Response Arrangements'¹ was implemented in October 2022, which sought to improve the effectiveness of gas DSR as a pre-emergency tool by enhancing the financial incentive for Users and Consumers to participate by introducing an option element and expanding the circumstances under which DSR could be offered and accepted. Consequently, National Grid NTS is now obliged to issue an annual tender to all Users to procure DSR Options for day ahead and within day demand reductions which, if accepted, create an obligation on the User to offer demand reduction at these times of actual or forecast supply shortage.

Urgent Modification 0833 'Enabling DSR Market Offers to be made by Non-System Trading Transactions'² was also implemented last year to enable National Grid NTS and Users to conduct DSR trades resulting from a successful tender via an offline 'over-the-counter' process. This Modification was raised and implemented in response to feedback that a lack of OCM access could be a barrier to User participation in the DSR Options tender. These reforms were necessarily progressed at pace to enable their implementation for this winter and National Grid NTS considers that it would therefore be appropriate to further review the DSR arrangements to ensure that they remain fit for purpose going forward and to explore how further participation can be encouraged.

The first tender for DSR Options was open between 18 November 2022 and 23 December 2022 and invited within-day and D-1 DSR Option Offers from Users on behalf of consumers for the remainder of the Winter Period 2022/23 and Winter Periods 2023/24 and 2024/25. At the time the tender was issued, National Grid NTS was considering raising a further UNC Modification to introduce a DSR product that could be exercised 5 days in advance and non-binding expressions of interest in such a D-5 DSR Option were also invited in this process. National Grid NTS decided that the level of interest received was not sufficient to warrant raising a Modification in an accelerated timeframe that could have enabled subsequent acceptance, given that Urgent procedures would have again been required which would have limited the time for the issues associated with such a longer lead-time DSR product to be discussed and assessed.

Two compliant D-1 offers were received and accepted for the remainder of this winter providing ~0.2 mcmd of pre-contracted DSR and no offers were received for the two subsequent Winter Periods³. In addition, one non-compliant within-day offer and one expression of interest in a D-5 product were received for 2022/23. However, based on feedback from a number of large industrial consumers and their associations, National Grid NTS believes that this level of participation is not reflective of the willingness of large industrial and commercial consumers to provide gas DSR. National Grid NTS understands that, in principle, gas DSR is an attractive and implementable proposition for a number of sectors. Therefore greater DSR volumes could potentially be secured if further reforms to DSR products and the associated procurement and execution mechanisms can be made which currently constitute barriers to participation.

¹ [0822 \(Urgent\) - Reform of Gas Demand Side Response Arrangements | Joint Office of Gas Transporters \(gasgovernance.co.uk\)](#)

² [0833 \(Urgent\) - Enabling Demand Side Response \(DSR\) Market Offers to be made by Non-Trading System Transactions | Joint Office of Gas Transporters \(gasgovernance.co.uk\)](#)

³ The Tender Outcome Report can be found [here](#)

Scope

It is proposed that this Request covers the following 4 workstreams from which a further UNC Modification(s) will be considered and potentially developed:

- 1. Enabling direct contracting for DSR between National Grid NTS and consumers.**
- 2. A longer lead-time DSR product**
- 3. Eligibility and aggregation**
- 4. Review of existing DSR arrangements post implementation of Modifications 0822 & 0833**

1. Enabling direct contracting for DSR between National Grid NTS and consumers

At present, the contractual interface for gas DSR procurement is between National Grid NTS and Users, both in terms of the procurement of DSR Options and the execution of trades to enable demand reduction, with the rules detailed in the UNC and in National Grid NTS' Gas DSR Methodology⁴. In order for a User to offer DSR to National Grid NTS, commercial and operational arrangements also need to be in place between the User, (potentially via the supplier) and the Consumer who will physically deliver the demand reduction, reflecting the established contractual chain that applies in the GB gas industry.

Whilst National Grid NTS believes that Users should be encouraged to offer DSR terms to consumers that wish to participate, feedback received during the development and implementation of Modification 0822 suggests that this contractual structure may be a barrier to Consumer participation, because adopting this role exposes the User to commercial and operational risks which may deter DSR being offered to Consumers, given that there is no obligation for the User to do so.

The key issues to explore in this workstream are:

- Whether there are legal barriers to such direct contracting between National Grid NTS and Consumers and if so, what would need to change and indicative lead-times to deliver such changes.
- Industry views regarding the desirability of direct contracting for DSR and any potential precedents this would set
- The expansion of National Grid NTS' role in the market and any requirements of any new/amended role
- The residual role of the User/Supplier, including how any DSR would be reflected in a User's imbalance position
- Implications for the balancing arrangements, given the potential for a transaction between National Grid NTS and a Consumer to impact on the determination of system prices
- Information requirements for Users in a direct contracting scenario
- Procurement mechanism
- Heads of terms for standard conditions of contract inc credit requirements, duration etc
- Means of execution
- Licensing impacts
- Transparency requirements for the wider industry
- Whether direct contracting should be supplemental to existing arrangements or replace them
- Implementation issues, including National Grid NTS resourcing impacts

2. Longer Lead-time DSR product

At present, the gas DSR market is opened for DSR Market Offers to be made upon the issue of a Margins Notice at D-1 or Gas Balancing Notification which could be either within day or at D-1. Due to the prompt nature of these

⁴ [Gas DSR Methodology](#)

notifications, only Consumers that are capable of reducing their demand with one day's notice or within-day are able to participate.

Stakeholder feedback during the development of Modification 0822 revealed that a longer notice period could increase the level of participation; some industrial consumers specifically indicated that they would require a notice period of greater than one day to enable them to participate in the DSR scheme.

National Grid NTS therefore proposes to further explore the issues via the introduction of a DSR option with a longer lead time, for example, a D-5 DSR product, as a 'balancing service'. This would involve an assessment of the supply / demand balance position a number of Days in advance and enable National Grid NTS to exercise such DSR at that time if specified criteria are met.

The key issues to explore in this workstream are:

- Potential longer notice periods greater than one day
- Interaction with National Grid NTS' role as residual balancer
- Interaction with Workstream 1, i.e. which parties National Grid NTS is contracting with
- Potential consequences of National Grid NTS' intervention in the market outside of prompt timescales and potential mitigations
- Exercise costs included or excluded from cashout price determination
- Criteria / trigger for exercise
- Procurement mechanism
- Duration of procurement
- Execution mechanism
- Should National Grid NTS have the ability to revoke exercise if DSR is no longer needed nearer the Day
- Potential risk of flight from prompt DSR products
- OCM implementation capability and compliance matters (e.g. with exchange rules and Markets in Financial Instruments Directive if traded via the OCM)
- Availability / accuracy of User nominations at D-5
- Market transparency requirements
- Accuracy of supply / demand forecast at D-5 and whether this could be improved
- Settlement and credit arrangements
- Cash flows through Energy Balancing Neutrality
- Product Optionality – links to within-day / day ahead products
- Exercise pricing

3. Eligibility and aggregation

At present, a Consumer must be classed as a DMC Supply Point and have an Annual Quantity (AQ) of above 2,000,000 therms per annum (i.e. be a 'class 1' site) to be eligible to participate in Gas DSR. Stakeholder feedback indicates that there are many sites that could offer gas DSR that do not meet this threshold, and therefore it is a barrier to their entry to the DSR market.

UNC also specifies a minimum quantity of DSR that can be transacted of 100,000 kWh, which is derived from the minimum trade size on the OCM and represents a sufficiently material quantity in the context of overall system demand.

The key issues to explore in this workstream are:

- Expansion of DSR eligibility to class 2 sites, which are also required to be Daily Metered
- Aggregator role to enable multiple smaller sites within a User's portfolio to offer DSR

- The roles and requirements of all relevant parties including the aggregator (e.g. impact of the aggregator existing the market)
- Interaction with Workstream 1
- Cash-flows between the relevant parties
- Nominations processes and validation of demand reduction
- Eligibility of CSEPs
- Eligibility of sites connected to IGT networks

4. Review of existing DSR arrangements post implementation of Modifications 0822 & 0833

Modification 0822 introduced the concept of DSR Options, whereby Users may commit in advance to offer demand reduction quantities to National Grid NTS at times of supply shortage on behalf of consumers, for which they receive a payment. Procurement of DSR Options is achieved by an annual tender process for the next three Winter Periods where Users may offer option and exercise prices for demand reduction that would be available for National Grid NTS to call upon either within-day or at the D-1 stage.

This Modification was progressed at pace under Urgent procedures to enable implementation for this winter and therefore would benefit from a review of some of the key components in the light of experience and reflection to determine whether it is still fit for purpose.

The key issues to explore in this workstream are:

- Multi-year duration of DSR Options tender
- National Grid NTS' method of assessing offers received
- Means of procurement
- Eligibility of power generation sites to participate
- The optimal approach to baselining a consumer's prevailing offtake level
- Shipper obligations to post DSR Market Offers for within day and D-1 options
- Product Optionality – within-day / day ahead and any longer term DSR products

Impacts & Costs

This Request covers a broad range of DSR topics, which will likely raise a number of legal, commercial, operational and implementation issues. The key impacts and costs are expected to be as follows:

- OCM market operation (the OCM is the primary means by which DSR Market Offers are posted and accepted)
- Changes to legislation and the NTS Licence may be required, for example if direct consumer contracting is pursued
- Operational processes of National Grid NTS, Users and consumers including systems (specifically Gemini)
- National Grid NTS' costs and resourcing impacts to deliver the reforms and manage them going forward
- System operation impacts for Gas Distribution Networks if there is a material expansion in the number of consumers participating in gas DSR which may impact GDN operational processes
- Users may face increased costs, for example to fund greater volumes of DSR Options
- IGT UNC if a Modification(s) to mirror UNC changes are required
- Impacts on National Grid NTS' DSR Methodology statement
- Changes may be required to National Grid NTS' System Management Principles Statement and Procurement Guidelines.

Recommendations

The objectives of this Request are:

- To identify and capture the remaining barriers to large industrial Consumers' participation in the gas DSR scheme
- To validate that the level of response to the 2022/23 DSR Options Invitation is not reflective of the willingness and ability of many industrial Consumers to offer DSR
- To consider how a growth in DSR volumes for winter 2023/24 and future years can best be achieved
- To work at pace with the industry and Consumers to identify potential solutions to current barriers that command broad support and are informed by what Consumers say will work for them
- To consider a range of potential reforms for winter 2023/24, assess their deliverability and prioritise which are likely to yield the most benefit in terms of additional DSR uptake and which are longer term issues
- Early identification of what cannot be delivered for winter 2023/24 and timely decision making so that what is deliverable can be implemented
- To produce a UNC Modification Proposal(s) which can be implemented for winter 2023/24
- To review the key elements of Urgent Modification 0822 and determine whether any further changes to DSR arrangements are desirable.

2 Impacts and Costs

Consideration of Wider Industry Impacts

Impacts

Impact on Central Systems and Process	
Central System/Process	Potential impact
UK Link	<ul style="list-style-type: none"> • No impact is expected in terms of UK Link system changes
Operational Processes	<ul style="list-style-type: none"> • There may impacts on the CDSP's operational processes, for example to facilitate invoicing of a larger number of DSR Options • Potential impacts on demand forecasting and nominations processes

Impact on Users	
Area of Users' business	Potential impact
Administrative and operational	<ul style="list-style-type: none"> • Potential for a greater number of Consumers to participate in DSR through their User, therefore additional operational requirements may result for Users with an I&C Consumer portfolio
Development, capital and operating costs	<ul style="list-style-type: none"> • Potential increase in operating costs for Users that facilitate the delivery of greater DSR volumes
Contractual risks	<ul style="list-style-type: none"> • The range of liabilities that Users have with their consumers has the potential to increase if they are facilitating more DSR participation
Legislative, regulatory and contractual obligations and relationships	<ul style="list-style-type: none"> • Potential increase in the number of contractual obligations that Users have to their consumers. The

Impact on Users	
	impact on Users overall will depend on the outputs of the 'direct contracting' workstream.

Impact on Transporters	
Area of Transporters' business	Potential impact
System operation	<ul style="list-style-type: none"> An increase in DSR volumes and expanded DSR product range could increase the incidence of DSR being exercised. This is expected to benefit system security and also increase the range of activities that operational staff in Transporter organisations need to perform at times of perceived or actual supply shortage. Greater capability for National Grid NTS to access DSR could impact on GDNs' demand forecasting processes. Should a situation of supply shortage progress to an emergency, if a larger number of consumers have already been subject to DSR exercise, there could be an impact on which consumers Transporters instruct to cease taking gas under firm load shedding procedures.
Development, capital and operating costs	<ul style="list-style-type: none"> Potential increase in costs for National Grid NTS to implement these potential DSR reforms, including resourcing levels
Recovery of costs	<ul style="list-style-type: none"> Potential impact depending on the solutions identified
Price regulation	<ul style="list-style-type: none"> No impact expected
Contractual risks	<ul style="list-style-type: none"> Potential for National Grid NTS to contract directly with consumers which could increase its level of contractual risk
Legislative, regulatory and contractual obligations and relationships	<ul style="list-style-type: none"> Potential reforms will need to be assessed against existing legislation and Licence obligations
Standards of service	<ul style="list-style-type: none"> Greater access for National Grid NTS to gas DSR should have a positive impact on Transporters' ability to maintain reliable supplies to consumers

Impact on Code Administration	
Area of Code Administration	
Modification Rules	<ul style="list-style-type: none"> No impact expected
UNC Committees	<ul style="list-style-type: none"> No impact expected
General administration	<ul style="list-style-type: none"> This Request will need to progress at pace in order to facilitate delivery of DSR reforms for winter 2023/24. Additional Workgroup meetings are likely to be required, facilitated by the Code Administrator.

Impact on Code Administration	
DSC Committees	<ul style="list-style-type: none"> There may be a requirement for new or amended CDSP processes which would need to be progressed as a Change Proposal(s) through the relevant DSC committee.

Impact on Code	
Code section	Potential impact
	<ul style="list-style-type: none"> TPD Section D – Operational Balancing and Trading Arrangements

Impact on UNC Related Documents and Other Referenced Documents	
Related Document	
Network Entry Agreement (TPD I1.3)	<ul style="list-style-type: none"> No impact expected
General	
Legal Text Guidance Document	<ul style="list-style-type: none"> No impact expected
UNC Modification Proposals – Guidance for Proposers	<ul style="list-style-type: none"> No impact expected
Self Governance Guidance	<ul style="list-style-type: none"> No impact expected
TPD	
Network Code Operations Reporting Manual (TPD V12)	<ul style="list-style-type: none"> No impact expected
UNC Data Dictionary	<ul style="list-style-type: none"> No impact expected
AQ Validation Rules (TPD V12)	<ul style="list-style-type: none"> No impact expected
AUGE Framework Document	<ul style="list-style-type: none"> No impact expected
Customer Settlement Error Claims Process	<ul style="list-style-type: none"> No impact expected
Demand Estimation Methodology	<ul style="list-style-type: none"> No impact expected
Energy Balancing Credit Rules (TPD X2.1)	<ul style="list-style-type: none"> No impact expected
Energy Settlement Performance Assurance Regime	<ul style="list-style-type: none"> No impact expected
Guidelines to optimise the use of AQ amendment system capacity	<ul style="list-style-type: none"> No impact expected

Impact on UNC Related Documents and Other Referenced Documents	
Guidelines for Sub-Deduct Arrangements (Prime and Sub-deduct Meter Points)	<ul style="list-style-type: none"> No impact expected
LDZ Shrinkage Adjustment Methodology	<ul style="list-style-type: none"> No impact expected
Performance Assurance Report Register	<ul style="list-style-type: none"> No impact expected
Shares Supply Meter Points Guide and Procedures	<ul style="list-style-type: none"> No impact expected
Shipper Communications in Incidents of CO Poisoning, Gas Fire/Explosions and Local Gas Supply Emergency	<ul style="list-style-type: none"> No impact expected
Standards of Service Query Management Operational Guidelines	<ul style="list-style-type: none"> No impact expected
Network Code Validation Rules	<ul style="list-style-type: none"> No impact expected
OAD	No impact expected
Measurement Error Notification Guidelines (TPD V12)	<ul style="list-style-type: none"> No impact expected
EID	No impact expected
Moffat Designated Arrangements	<ul style="list-style-type: none"> No impact expected
IGTAD	<ul style="list-style-type: none"> Potential impact on the IGT UNC to ensure that eligible Consumers connected to IGT networks are not excluded from DSR participation
DSC / CDSP	Potential Impact
Change Management Procedures	<ul style="list-style-type: none"> There may be a requirement for new or amended CDSP processes which would need to be progressed as a Change Proposal(s) through the relevant DSC committee
Contract Management Procedures	<ul style="list-style-type: none"> No impact expected
Credit Policy	<ul style="list-style-type: none"> No impact expected
Credit Rules	<ul style="list-style-type: none"> No impact expected
UK Link Manual	<ul style="list-style-type: none"> No impact expected

Impact on Core Industry Documents and other documents	
Document	
Safety Case or other document under Gas Safety (Management) Regulations	<ul style="list-style-type: none"> No impact expected
Gas Transporter Licence	<ul style="list-style-type: none"> Potential for changes to the NTS Licence, for example to enable direct contracting for DSR between National Grid NTS and consumers

Other Impacts	
Item impacted	Potential impact
Security of Supply	<ul style="list-style-type: none"> A greater quantity of gas DSR availability is expected to reduce security of supply risks by increasing the ability of National Grid NTS to effectively manage a national gas supply shortage, thereby mitigating the risk of a NGSE.
Operation of the Total System	<ul style="list-style-type: none"> An increase in DSR volumes and expanded DSR product range could increase the incidence of DSR being exercised and more secure system operation. Greater capability for National Grid NTS to access DSR could impact on GDNs' demand forecasting processes
Industry fragmentation	<ul style="list-style-type: none"> No impact expected
Terminal operators, consumers, connected system operators, suppliers, producers and other non code parties	<ul style="list-style-type: none"> A greater number of consumers may be able to participate in Gas DSR, potentially via their supplier No impact is expected on terminal operators, connected system operators or producers.

3 Terms of Reference

Background

This Request seeks to:

- Identify the remaining barriers to consumers' participation in gas DSR;
- Set out workstreams which aim to resolve those barriers;
- Develop potential solutions and their relative prioritisation and deliverability; and
- Review DSR arrangements following the implementation of recent DSR Modifications.

Topics for Discussion

- Meeting 1
 - Remaining barriers to participation
 - Direct contracting for DSR between National Grid NTS and Consumers
 - Longer lead-time DSR product

- Meeting 2
 - Eligibility and aggregation
 - Review of existing DSR arrangements post implementation of Modifications 0822 and 0833

- Meeting 3
 - Deliverability assessment of each workstream
 - Capture interdependencies between workstreams
 - Completion of Request Workgroup Report
 - Consideration of draft UNC Modification(s) to succeed the Request

Outputs

Produce a Workgroup Report for submission to the UNC Modification Panel, containing the assessment and recommendations of the Workgroup including a draft Modification(s) where appropriate.

Composition of Workgroup

The Workgroup is open to any party that wishes to attend or participate.

A Workgroup meeting will be quorate provided at least two Transporter and two User representatives are present.

Meeting Arrangements

Meetings will be administered by the Joint Office and conducted in accordance with the Code Administration Code of Practice (<https://www.gasgovernance.co.uk/cacop>)

4 Recommendations

Proposer's Recommendation to Panel

The Proposer invites the Panel to:

- Determine that Request 083x progress to Workgroup for review with a report back to Panel on 20 April 2023.