








UNC Modification	At what stage is this document in the process?
<h1>UNC 0856:</h1> <h2>Introduction of Trials for Non-Daily Metered (NDM) Demand Side Response (DSR)</h2>	<p>01 Modification</p> <p>02 Workgroup Report</p> <p>03 Draft Modification Report</p> <p>04 Final Modification Report</p>
<p>Purpose of Modification:</p> <p>Create a framework to enable National Gas Transmission (NGT) to run time-limited trials for NDM DSR with the aim of gathering data, contributing towards our longer term thinking, allow risks to be better understood and may<u>potentially</u> increase the pre-emergency tools available.</p>	
<p>Next Steps:</p> <p>The Proposer recommends that this Modification should be:</p> <ul style="list-style-type: none">considered a material change and not subject to Self-Governanceassessed by a Workgroup <p>This Modification will be presented by the Proposer to the Panel on 21 September 2023. The Panel will consider the Proposer's recommendation and determine the appropriate route.</p>	
<p>Impacted Parties:</p> <p>High: NGT, Shippers, Consumers, Distribution Networks, IGTs</p> <p>Low:</p> <p>None:</p>	
<p>Impacted Codes: UNC and potentially IGT UNC</p>	

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Pre-Modification Discussed	03 August 2023 & 07 September 2023		 +44 (0)7548 773619
Date Modification Raised	08 September 2023		Systems Provider: Xoserve
New Modification to be considered by Panel	21 September 2023		 UKLink@xoserve.com
First Workgroup Meeting	05 October 2023		
Workgroup Report to be presented to Panel	16 November 2023		
Draft Modification Report issued for consultation	16 November 2023		
Consultation Close-out for representations	07 December 2023		
Final Modification Report available for Panel	12 December 2023		
Modification Panel recommendation	14 December 2023		

1 Summary

What

NGT proposes to introduce a new provision within the Uniform Network Code (UNC) which permits the use of Trials for NDM DSR to explore factors associated to the development of an NDM DSR tool. The Trial(s) will be delivered through provisions already set out in System Management Principles Statement (SMPS) and Procurement Guidelines. The development and use of such Trial(s) may lead to enduring developments that can provide additional resilience and supplement Great Britain's (GB) energy security.

A Trial(s) would facilitate learning and data gathering which aids NGT's longer-term thinking on the effectiveness of a potential commercial tool which supports our wider resilience mechanisms and helps us to better understand the risks of such a tool and identify potential mitigations. Additionally, by exploring this topic via a Trial(s) it is provides a more efficient route when compared to developing a solution and having it which is implemented into the UNC when it the impacts may not be fully understood before and as such may require unwinding from the UNC if it does not work as originally intended.

NGT propose that the NDM DSR Trial(s) should be funded through via Energy Balancing Neutrality where the costs associated with balancing the network are socialised across the Shipper community. NGT consider that this is an appropriate approach because DSR is a tool that is used to help address a national energy imbalance.

Why

In March 2023, the Department for Energy Security and Net Zero (DESNZ) published their 'Powering Up Britain - Energy Security Plan'¹ which states:

"The Government is working with NGT to increase the available volumes for industrial demand reduction for winter 2023-24 and investigate options for how domestic and smaller business gas consumers could participate more in future schemes".

This Modification seeks to establish the necessary framework to help deliver this Government ambition.

NGT has progressed several DSR reforms in 2022/23 and -plans to continue to develop DSR tools this work with the aim of increasing both participation and the volume from the Daily Metered (DM) demand that can be accessed in the event of supply tightness.

NGT has continued engagement with DESNZ and Ofgem to explore how domestic and smaller industrial and commercial gas consumers could participate in the DSR market. NGT considers the use of a Trial(s) to explore potential sources of NDM demand reduction to be an appropriate route before any enduring solution is developed due to the potential risks of offering a process whereby NDM consumers can reduce their gas demand in return for a payment (for example in relation to impacts on vulnerable consumers). The learnings from a Trial(s) will then be reviewed and utilised to further develop industry thinking in relation to how an enduring product could work and be implemented.

NGT recognise that further enhancements to pre-emergency tools would be welcome which have the potential to further enhanceimprove Winter resilience.

For the avoidance of doubt, the scope of this Modification is limited to Trial(s) for NDM DSR.

¹ [Powering Up Britain: Energy Security Plan \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

How

UNC:

To deliver the proposed solution, NGT proposes to make the following changes:

NGT propose to introduce a new term into UNC TPD Section D and utilise existing provisions within the SMPS² to enact NDM DSR Trial(s). In order to run an NDM DSR Trial(s), NGT would be required to publish a Specification Document outlining the proposal and the details of the limited NDM DSR Trial(s).

The specification document would be subject to consultation and would require Ofgem determination to confirm its would be required to provide approval, approval with the following updates or rejection within [28 business days] from the close of the consultation.

NGT would only be able to proceed with the NDM DSR Trial(s) in the form consulted upon following approval from Ofgem.

SMPS:

Section D of the SMPS provides an overview of the specific services for system management which are documented in the table below. NGT considers that existing tools, services and provisions set out within the System Management Services (SMS), as set out as Specific Services in the SMPS, provide an appropriate mechanism for running NDM DSR Trial(s) to explore innovative enhancements and gain data from real life market scenarios.

Specific Services for System Management include	Description
Energy Tools	NGT may use the ICE Endex operated On-the-day Commodity Market (OCM), or any other market mechanism or contract to buy and sell gas for the purposes of system management.
Capacity Tools	NGT may use the Gemini / Gemini exit system, or any other market, mechanism or contract to buy and sell system NTS Entry or Exit Capacity for the purposes of system management.
Storage Services	NGT may procure any storage service from storage facility users, or any other market, mechanism or contract relating to physical or commercially based storage products for the purposes of system management.
Demand and Supply Management Services	NGT may incentivise Users or end consumers to enter into contracts to affect desired gas flow offtake or delivery into the system.

² <https://www.nationalgas.com/document/140971/download>

Other Commercial and Contractual Services	NGT may develop further services or enter into contracts that will enable it to better manage its operational and commercial risks.
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2 Governance

Authority Direction

NGT believes that this Modification requires Authority Direction for the following reasons:

- The introduction of an NDM Trial(s) within the regulatory framework constitutes a material change to the arrangements in which we are operating and would be expected to result in additional costs to the Shipper community due to the proposal stating that Trial(s) will be funded via the Energy Balancing Neutrality mechanism.

Requested Next Steps

This Modification should:

- be considered a material change and not subject to Self-Governance.
- be assessed by a Workgroup.

In order to deliver an NDM Trial(s) for Winter 2023/24 and thus meeting the expectations set out in the Powering Up Britain – Energy Security Plan in regards to investigating options for how domestic and smaller gas consumers are able to participate in future DSR schemes and engage adequately with the industry, NGT request that additional workgroups are facilitated by the Joint Office in October, week commencing 16/10/23, and potentially a contingency workgroup during the week commencing 06/11/23 where the workgroup report can be finalised. These workgroups are requested for the industry to provide feedback and help develop the solution, whilst being able to complete and return the Workgroup Report back to the UNC Panel on 16/11/23.

3 Why Change?

Driver for change

The Gas Demand Side Response (DSR) arrangements were introduced into the UNC in 2016 by [Modification 0504](#) 'Demand Side Response Methodology Implementation'. They provide a mechanism for large consumers of gas to offer to reduce their gas demand in return for a payment which they define during times of system stress when a Gas Balancing Notification (GBN) is in operation.

Subsequent UNC reforms [Modification 0822](#) (Urgent) (Reform of Gas Demand Side Response Arrangements) and [Modification 0833](#) (Urgent) Enabling Demand Side Response (DSR) Market Offers to be made by Non-Trading System Transactions have been implemented which aim to further increase both participation and the financial incentives for large Daily Metered Consumers to participate. In August 2023 two further UNC [Modifications 0844](#) (Enabling Direct Contractual Arrangements with Consumers for Demand Side Response) and [0845](#) (Enhancements to Demand Side Response (DSR) Arrangements including a D-5 Product) were approved by Ofgem which aim to further increase both participation and the DSR volume which NGT can then procure in advance of the Winter from large Daily Metered Consumers.

To date, all DSR reforms and Modifications have been focused on increasing participation from the Daily Metered community and NGT remains focused on growing this market. However, NGT recognises that NDM consumers could also play a key role in delivering gas demand reduction in the event of forecast system stress and thus further enhance DSR as a pre-emergency tool.

In March 2023, DESNZ published the Government's 'Powering Up Britain – Energy Security Plan' which stated an intention to work with NGT to continue developing DSR markets and "investigate options for how domestic and smaller business gas consumers could participate more in future schemes". Therefore NGT wishes to explore with the industry how these sections of the market could participate and reduce their demand as part of a commercial, pre-emergency tool.

NGT has engaged with some industry stakeholders to seek views regarding the introduction of an NDM reduction scheme. These discussions yielded consistent feedback that a central financial stimulus would be key to encouraging engagement from NDM consumers and that a direct contracting or balancing service arrangement would be the most favourable medium to use in order to facilitate an NDM reduction from a provider who has NDM consumers within their portfolio.

In order to explore and develop thinking further regarding how an NDM DSR product could work, NGT would like to conduct Trial(s), enabled by a framework change within the UNC. The principle features of the Trial(s) would be the ability to gather data, better understand risks and contribute towards longer term thinking on whether the findings from the Trial(s) would be suitable for enduring industry reform.

Benefits

By introducing the concept of NDM DSR Trial(s) into UNC this would create additional flexibility for NGT to innovate and trial ~~an~~ NDM DSR solutions before developing full-scale products which can take a significant amount of industry time and may not be utilised as much as originally planned. If ~~this~~ ~~these~~ were tested through time-limited Trial(s) it presents an opportunity to test key principles of ~~such~~ enhancements to one of our potential pre-emergency tools and gather data which may either support or disprove a hypothesis. Furthermore, if successful, the findings from the NDM DSR Trials will then directly feed into the development and enhancement of NGT's existing suite of pre-emergency DSR tools which could benefit NGT, Shippers, wider market participants, consumers and the whole country because they would help mitigate the risk of a Gas Deficit Emergency (GDE). Such trials would provide information for the industry to ~~better~~ understand and assess any such proposals and the operation of these proposals.

If this Modification is approved, NGT would look to run NDM DSR Trials during Winter 2023/24 which would provide valuable information and an opportunity to gather data on the level of interest, utilisation and the price point required to encourage consumers to reduce consumption. As stated earlier in this Modification, NGT is looking to explore options to encourage participation from domestic and smaller industrial and commercial consumers. We recognise that requesting a demand reduction from this section of the market carries unique risks which need to be carefully considered and navigated, especially when considering the interaction with domestic demand and vulnerable consumers. This is another important factor for wishing to explore this topic via time-limited Trials which would allow NGT to better understand these potential risks and to identify potential mitigating factors before considering an enduring product or solution. As stated above the trials would also provide the same information and data for the industry as a whole to consider.

Impacted parties

If this Modification is implemented, NGT foresees that the impacted parties include:

- NGT – through the new process and contractual arrangement
- NDM Consumers (Domestic and Non-Domestic) – through their interaction with the Trial

- Shippers – through a contractual relationship with Suppliers and Energy Balancing Neutrality costs
- Suppliers – Through a contractual relationship with the Shipper and NDM Consumers
- Gas Distribution Networks and Independent Gas Transporters – If the consumers who are participating in the Trial(s) are in their network, it could potentially impact their demand forecasting accuracy.

Why is this a Code matter

The current UNC text / SMPS are very prescriptive regarding the tools and processes that NGT can undertake. By introducing a framework where NDM DSR Trials can be enacted it would permit a greater level of flexibility which NGT believe would result in innovation and more effective products being developed and deployed into the market.

NGT is proposing to amend UNC TPD Section D to permit the use of NDM DSR Trials subject to the publication of and public consultation on a specification document which Ofgem would be required to approve ~~or reject~~ ~~approve with amendments within [28 business days] from following the closure of~~ the consultation ~~closure~~.

What are the effects if this change is not made?

If this Modification is not implemented NGT would ~~not~~ ~~be unlikely to~~ be able to run an NDM DSR Trial in Winter 2023/24 and thus be unable to explore the potential value of NDM DSR and it would result in not meeting the aspirations outlined in DESNZ's Powering Up Britain – Energy Security Plan. Additionally, this may prevent future NDM DSR reforms from being delivered as effectively as possible because there would not be an opportunity to Trial the key principles in a realistic scenario prior to such a proposal being developed and potentially implemented. Therefore, this may inhibit NGT from acting as efficiently as possible because there may be a requirement to implement UNC changes which subsequently require reforms to take into account real-life learnings or developments which could have been obtained via the use of NDM DSR Trials.

4 Code Specific Matters

Reference Documents

System Management Principles Statement (SMPS) - [A4 simple report 1-col no divider Nov 2019 \(nationalgas.com\)](#)

Knowledge/Skills

None

5 Solution

~~If approved, this Modification will amend T the UNC TPD section D to will be modified~~ ~~introduce a framework to which enables~~ NGT to run NDM DSR Trials for the purposes of gathering data, contributing to longer-term thinking and helping to better understand risks and have the trial funded by the Energy Balancing Neutrality mechanism.

If NGT wishes to run an NDM Trial, NGT will have to document and explain the following ~~in a specification document~~:

Trial Scope:

- ~~NGT shall be required to publish a Specification Document describing the NDM Trials along with its~~ The aims, objectives and success criteria of running the NDM DSR trial. The core objectives are to:
 - ~~Facilitate learning to assess the feasibility of an enduring NDM DSR product for the gas industry including that mitigates~~ minimising the impact on vulnerable consumers
 - ~~Better understand potential impacts on the wider energy system~~
 - ~~Make recommendations for feasible products as a result of learning from the NDM DSR trial(s)~~
- Specify the eligibility requirements for being able to participate in the NDM Trials for the Service Provider
- Document Payment Terms between NGT and service providers
- ~~Outline the~~ Contractual arrangements for the Service Provider which explains the roles, responsibilities and any liabilities which arise as a result of participating in the NDM DSR trials
- Estimated cost of the Trial / maximum spend or exposure for the Shipper community per NDM DSR trial.
 - ~~In the event of NGT wishing to obtain~~ additional funding for an NDM DSR trial, NGT will be required to engage with interested parties and Ofgem to describe the benefits of additional funding and why the original funding quantity was not adequate.
 - The specification document sets out the governance and process steps required
- Expected duration which cannot be longer than 12 months

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Trial Assessment

- NGT will be required to document the extent to which the NDM DSR trial will contribute towards the following factors:
 - Promoting the efficient and economic operation of the pipeline system
 - Coordinated, efficient and economic operation of
 - The combined pipe-line system and/or
 - The pipe-line system of one or more other relevant gas transporter
 - Does the trial contribute towards a ~~to~~ better understanding of how consumers will interact with ~~the~~ interact with the NDM DSR product
 - A more comprehensive understanding of how an NDM DSR reduction tool would impact the ~~whole~~ energy system

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Specification Document Consultation:

- NGT shall be required to send the Specification Document to Ofgem prior to a public consultation which NGT will then initiate, the public consultation will run for ~~{28 business days}~~ unless otherwise agreed with Ofgem
- Following the closure of the consultation period, Ofgem determination is requested to have ~~{28 business days}~~ to Approve or/ Reject / Approve with Amendments the Specification Document which is specific to the Trial.

Payment:

- Amounts (determined as provided in the Specification Document) payable to ~~or by~~ a Service Provider in connection with the NDM Trial are additional Monthly Adjustment Neutrality Costs or Adjustments

- The payments from Energy Balancing Neutrality to fund the Trial do not impact the ~~setting of~~ the daily System Average Price (SAP) or the System Marginal Prices (SMP)

Reporting requirements:

- Within 2 months after the end of the Trial, NGT have an obligation to publish a report documenting the results, ~~and findings~~, cost to the industry and an assessment against the success criteria and trial assessment factors that were published within the Specification Document
- NGT must also confirm if they intend to raise a Modification to implement the Trials concept on an enduring basis.

6 Impacts & Other Considerations

Does this Modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

None.

Consumer Impacts

This Modification will allow NGT to further develop the Pre-Emergency DSR tools at its disposal. Therefore, it is likely to improve the overall effectiveness of these tools and further reduce the likelihood of a GDE which would entail significant cost and disruption to the industry and consumers, potentially requiring firm load shedding and the isolation of domestic consumers.

If this Modification is implemented and NDM DSR Trials are conducted it will introduce new incentives for NDM consumers who are participating in the trials to reduce their consumption for a limited period of time. In return for voluntarily reducing their consumption, they will receive a payment associated with the reduction. As a result of the reduction, consumers can also expect to receive lower gas bills for the period(s) where they have reduced their consumption when compared to others who have not participated in the Trials.

The learnings from the Trials will be considered and may feed into the potential development of an enduring, ~~full-scale~~ product and suite of pre-emergency DSR tools which would enable NGT to incentivise NDM consumers to reduce their consumption in times of a supply tightness.

What is the current consumer experience and what would the new consumer experience be?

Currently, there is no central product either enduring or on a trial basis which is aimed at NDM consumers which incentivises them to reduce their gas consumption in return for payment. The existing DSR arrangements are aimed at large industrial and commercial consumers and operate under an 'option and exercise' regime. Smaller consumers have been able to interact with National Grid ESO's (ESO) Demand Flexibility Service (DFS) which encourages consumers to reduce or alter their electricity consumption over a short period of time in return for payment. Therefore, they are more familiar with a demand reduction product or trials than ever before.

Impact of the change on Consumer Benefit Areas:	
Area	Identified impact
<p>Improved safety and reliability</p> <p>By permitting NGT to run Trials to develop our the and industry's understanding of the viability or appropriateness of a NDM DSR product, it has the potential to improve the safety and reliability of the network and improve resilience. Due to the nature of a Trial which is limited in scope, size and duration, it provides an opportunity to test and understand solutions in a more controlled environment which is likely to contribute towards the safety and reliability of the network.</p>	Positive
<p>Lower bills than would otherwise be the case</p> <p>If this Modification is implemented and thea-suitable Specification Document is approved by Ofgem, NGT plan to run Trials for NDM DSR during winter 2023/24. During this Trial, consumers would be incentivised to reduce their consumption over specified periods of time. Due to consumers who are participating in the NDM DSR Trials, reducing their consumption more than they would have normally, they would naturally receive lower gas bills. Additionally, they would receive payment for the reduction they have been able to deliver during the trials.</p>	Positive
<p>Reduced environmental damage</p> <p>None</p>	None
<p>Improved quality of service</p> <p>Currently, there are no provisions which permit NGT to run NDM DSR Trials. If implemented, there would be greater opportunities to take onboard feedback for future enhancements which could in the first instance be utilised via Trials.</p> <p>If NDM DSR Trials are approved (subject to the Modification being implemented), it will provide some NDM consumers the opportunity to participate in the development of a solution which benefits GB and their own security of supply.</p>	Positive
<p>Benefits for society as a whole</p> <p>The learnings from the NDM DSR Trials will contribute towards longer-term thinking which is likely to feed into an enduring NDM DSR product which will enhance the overall GB security of supply by helping to mitigate the changes of a GDE. If a GDE occurred, it would likely have a severe economic and societal impact on the country.</p>	Positive

Cross-Code Impacts

There may be a requirement to produce a "mirror Modification" within the iGT UNC.

EU Code Impacts

None at this stage. However, if the trials lead to an enduring product being developed it may have interaction with the EU Balancing Code because it may be considered a Balancing Service.

Central Systems Impacts

None.

It is not expected that there will be any central system impacts in order for NGT to run NDM DSR Trials. If there were to be a system change this would be captured within the specification document and would be subject to consultation and an Ofgem decision. However, due to the time-limited nature of Trials, we do not anticipate there to be system change requirements for such Trials.

However, the Central Data Services Provider (CDSP) are likely to have process changes or additional processes in order to facilitate the payments to Shippers following the Consumer demand reduction.

7 Relevant Objectives

Impact of the Modification on the Transporters' Relevant Objectives:

Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	Positive
b) 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.	Positive
c) Efficient discharge of the licensee's obligations.	None
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.	None
e) 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.	None
f) Promotion of efficiency in the implementation and administration of the Code.	Positive
g) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None

Relevant Objective a) "Efficient and economic operation of the pipe-line system" is furthered by this Modification which is designed to create a framework which permits NGT to test key principles of a NDM DSR product -via the use of Trials. Trials would allow NGT to explore potential enhancements to existing tools and develop new ones by gathering data, and better understanding risks which will be vital when considering the suitability and development of future DSR tools.

Additionally, this **Relevant Objective** is furthered by this Modification **as itwhich** is designed to further our thinking and deliver enhancements to our DSR pre-emergency tool thus helping to mitigate the risk of a supply shortage escalating to a declaration of a GDE. In the event of a GDE being declared and compulsory firm load shedding **taking place this** would result in disruption and inefficiency in the operation and use of the network as some parties that would wish to be taking gas would be prevented from doing so.

Relevant Objective b) “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” is furthered by this Modification because NGT intends to explore **thesome** key concepts behind an NDM DSR product. The learnings from this Trial may have a direct contribution towards GB’s security of supply due to **such a product providing** a potential **additional** mitigating action in preventing a GDE from being declared. If such an event occurred, in addition to firm load shedding on the NTS, Gas Distribution Networks may be given instructions to implement the shedding of firm loads within their networks resulting in disruption and inefficiency at the LDZ level too.

Relevant Objective f) “Promotion of efficiency in the implementation and administration of the Code” is furthered by this Modification because it may prevent full-scale solutions being implemented into the UNC which later have to be reformed or withdrawn due to first-year operational learnings.

8 Implementation

Implementation is sought by late December 2023 / early January 2024 to allow time for NGT time to produce a Specification Document for an NDM DSR Trial to be run in March – April 2024.

Therefore, the following implementation dates are suggested:

If a decision is received by 21 December 2023, the implementation date should be 22 December 2023

If a decision is received by 27 December 2023, the implementation date should be 28 December 2023.

If a decision is received after 28 December, implementation should be on the next business day thereafter.

9 Legal Text

Text Commentary

The legal text and associated commentary shall be provided prior to the beginning of the consultation period and will consist of a new section within UNC TPD Section D to permit the use of Trials for NDM DSR product development.

10 Recommendations

Proposer’s Recommendation to Panel

Panel is asked to:

- Agree that Authority Direction should apply.

Refer this proposal to a Workgroup for assessment.