








UNC Modification	At what stage is this document in the process?
<h1>UNC 0844:</h1> <h2>Enabling Direct Contractual Arrangements with Consumers for Demand Side Response</h2>	<p>01 Modification</p> <p>02 Workgroup Report</p> <p>03 Draft Modification Report</p> <p>04 Final Modification Report</p>
<p><b>Purpose of Modification:</b></p> <p>The purpose of this Modification is to expand the scope of the Demand Side Response (DSR) arrangements (as set out in the UNC) to enable the establishment of direct contractual arrangements between National Gas Transmission (NGT) and individual Consumers for the voluntary reduction of their gas demand.</p>	
<p><b>Next Steps:</b></p> <p>The Proposer recommends that this Modification should be:</p> <ul style="list-style-type: none"><li>considered a material change and not subject to Self-Governance</li><li>assessed by a Workgroup</li></ul> <p>This Modification will be presented by the Proposer to the Panel on <b>20 April 2023</b>. The Panel will consider the Proposer's recommendation and determine the appropriate route.</p>	
<p><b>Impacted Parties:</b></p> <p>High: Large Industrial and Commercial Consumers, National Gas Transmission (NGT), Shippers, On-the-Day Commodity Market (OCM) Market Operator, Gas Distribution Networks, CDSP</p> <p>Low: IGTs</p>	
<p><b>Impacted Codes:</b></p> <p>UNC and potentially iGT Code</p>	

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Timetable			Systems Provider: Xoserve
<b>Modification timetable:</b>			
Pre-Modification Discussed	06 April 2023		 <a href="mailto:UKLink@xoserve.com">UKLink@xoserve.com</a>
Date Modification Raised	12 April 2023		
New Modification to be considered by Panel	20 April 2023		
First Workgroup Meeting	04 May 2023		
Workgroup Report to be presented to Panel	15 June 2023		
Draft Modification Report issued for consultation	16 June 2023		
Consultation Close-out for representations	07 July 2023		
Final Modification Report available for Panel	12 July 2023		
Modification Panel recommendation	20 July 2023		
Final Modification Report issued to Ofgem	20 July 2023		

## 1 Summary

### What

The Gas Demand Side Response (DSR) arrangements provide a mechanism for large consumers of gas to offer to reduce their demand via their User in return for a payment that they define during times of system stress.

The DSR arrangements as reformed by Modification 0822 take the form of distinct “option” and “exercise” stages with separate payments made for each. Ahead of each forthcoming Winter Period, NGT issues an invitation to all Users seeking commitments, in advance, to offer DSR quantities ~~on behalf of consumers~~ for the next three Winter Periods ~~that would physically be delivered by Consumers~~. When a Margins Notice (MN) or Gas Balancing Notification (GBN) has been issued, NGT may exercise any accepted DSR Options (and any DSR Market Offers that are not linked to a DSR Option) via an OCM trade which triggers a requirement for the User to reduce the relevant Output Nomination and the consumer to reduce its offtake of gas.

### Why

In its decision letter for Modification 0822, Ofgem encouraged consideration of how consumer access to gas DSR could be broadened. NGT considers that it is desirable to seek to maximise the quantity of gas DSR that would be made available because it serves as a pre-emergency tool to mitigate against the risk or severity of a Gas Deficit Emergency (GDE). Feedback provided by industrial consumers to NGT during the development of Modification 0822 and via other fora suggests that the ability for NGT to contract with Consumers directly for the reduction or cessation of offtake of gas as voluntary DSR could increase the level of participation.

Given this, NGT is of the view that being able to additionally make voluntary curtailment arrangements directly with Consumers (for the avoidance of doubt, in addition to existing arrangements entered into with Registered Users) may increase the demand volumes that are able to be curtailed should there be a need to address a forecast supply shortfall.

### How

It is proposed to modify the UNC (and separately the Gas DSR methodology statement) to enable NGT to enter into contractual arrangements to procure DSR from any class 1 gas Consumer (a Consumer that is daily metered with an Annual Quantity of greater than 2 million therms).

Further, it is proposed that the UNC will be modified (as far as is necessary) to reflect:

- The ability of NGT to issue an invitation to procure DSR from eligible Consumers on an ‘option and exercise’ basis;
- the ability of an eligible Consumer to offer DSR to NGT with a lead-time of within-day, D-1 and D-5 in response to NGT’s invitation;
- the ability of NGT to accept the Consumer’s offer;
- ~~an obligation on~~ NGT ~~being obliged~~ to notify the relevant Registered User ~~and GDN~~ of any DSR option that has been agreed between NGT and a Consumer, (note that on exercise, existing NGT procedure provides for the relevant GDN to be notified of any DSR within its network and that the responsibility for communication of exercise to the shipper (potentially via the supplier) would be with the Consumer), subject to the Consumer having provided the relevant contact details of its Registered User to NGT as part of its DSR option offer;
- the existence of standard conditions of contract between NGT and each eligible Consumer whose option offer is accepted by NGT;

- the ability of NGT to exercise a DSR option provided by an eligible Consumer and therefore issue an instruction to the Consumer to reduce or curtail the offtake of gas;
- ~~the requirement for the price and energy quantity of each exercised option to constitute an Eligible Balancing Action for the purposes of the determination of the System Average Price (and determination of the System Marginal Buy Price and the System Marginal Sell Price);~~
- the requirement that a Consumer may hold a DSR Option either directly with NGT or via its shipper as provided for under the arrangements introduced by Modification 0822;
- arrangements whereby DSR Option and exercise payments will be made directly to Consumers (pursuant to bi-lateral contractual arrangements between NGT and Consumers) and for such costs to be included in Aggregate System Payments that are funded by Users via Balancing Neutrality arrangements.

~~It is proposed that notification obligations by NGT to GDNs of DSR options and exercise will be detailed in the Gas DSR methodology (as is the case currently) and that the publication requirements that currently apply to the DSR Options Invitation would apply equally to directly contracted DSR.~~

## 2 Governance

### Justification for Authority Direction

This Modification seeks to establish a new contractual framework that is referenced in UNC but whose specific provisions are defined outside UNC. This will facilitate an alternative means for NGT to secure voluntary DSR and represents a material change to the existing mechanism which has been in place since 2016. This is because NGT's contractual relationship under the existing DSR arrangements and under UNC is with Users. This Proposal sets a framework for NGT to enact such arrangements directly with Consumers which represents a step change from the prevailing framework and is likely to therefore have a material effect on new or existing gas consumers. On this basis, this Modification is sufficiently material to require Authority Direction.

### Requested Next Steps

This Modification should:

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

The principles and legality of the establishment of bi-lateral arrangements between NGT and eligible consumers for DSR was tabled and discussed in Request Group 0835R on 2 March 2023.

## 3 Why Change?

The Gas DSR arrangements were introduced into the UNC in 2016 by Modification 0504 '*Demand Side Response Methodology Implementation*'. This provided a mechanism for large Consumers of gas to offer to reduce their demand in return for a payment which they defined during times of system stress when a Gas Balancing Notification (GBN) is in operation. The User discharges that function with NGT by posting a DSR Market Offer onto the OCM DSR Locational Market ~~on behalf of a Consumer~~ which NGT may accept. Such voluntary demand reductions are intended to reduce the likelihood, severity and duration of a gas supply emergency and provide a 'route to market' for large consumers to receive greater financial compensation by voluntarily curtailing their demand than if they were involuntarily curtailed in a stage 2 of a GDE.

In order for a User to be able to post a DSR Market Offer, the terms on which the User does so needs to be agreed within its contractual arrangements with the Consumer (and potentially the supplier). This process causes these parties to incur contracting costs and the Consumer needs to be prepared to reduce their gas requirements and as such incur either a loss of production and/or be able to switch a back-up fuel.

Enhancements to these arrangements were introduced by Modification 0822. These changes provide for greater certainty of offers being available for exercise by including an additional 'option' payment in addition to the existing 'exercise' payment. The inclusion of an option payment recognises that costs are incurred for parties to be available to make such offers, regardless of whether demand reduction is actually required. A further change introduced by this Modification was that the trigger for submission and consideration of DSR Market Offers (formerly limited to when a GBN was in place) was extended to where a MN is issued. From this point NGT may accept any valid DSR Market Offers, following which the User should reduce its prevailing Output Nomination and instruct the consumer to reduce its offtake of gas. A MN is a D-1 notification and a GBN could be issued either within day or at D-1, therefore it is only those Consumers that are able to commit to curtail their gas flow within these timescales which are currently able to participate in Gas DSR. The combination of measures introduced by Modification 0822 are expected to increase the incentives for Users, consumers and suppliers to enter into DSR arrangements.

In its decision letter for Modification 0822, Ofgem encouraged consideration of how consumers' access to DSR may be broadened to further contribute towards the effectiveness of the DSR tool, which this Proposal seeks to enable.

### Driver for further DSR Reform

Engagement with large industrial consumers and their trade associations during the development of Modification 0822 indicated that increased participation in DSR arrangements may transpire if NGT is able to contract directly with eligible consumers for DSR. Feedback from some Users on the 0822 proposal indicated a lack of a commercial incentive and increased risks for Users to enter into such arrangements on behalf of consumers.

The Russian invasion of Ukraine and subsequent reduction in gas supplies to the EU has created material risks to global gas markets which impacts both the EU and GB gas markets which are linked both via physical assets and market arrangements. NGT therefore considers that it is prudent to consider additional means of securing a higher level of participation in DSR arrangements as a mitigation against these risks; increased participation would also provide mitigation against the unlikely event of a GDE being declared which would have a significant commercial impact on GB gas market participants and more widely in GB.

### Consequences of Non-implementation

If this change is not made, engagement with relevant stakeholders indicates that consumers that *could* potentially offer voluntary curtailment may be unable to do so due to the design of the current commercial framework for DSR, recognising that at present the Registered User's participation in DSR on behalf of a consumer is voluntary.

This would mean that one of the tools available to NGT to mitigate a material imbalance between national demand and supply (where a GBN / MN have been issued) that could progress to a GDE may not provide as much demand reduction as it potentially could. This Modification would serve to increase the likelihood of such additional demand curtailment being available if needed to reduce the likelihood and/or severity of a GDE.

### Legal Considerations

The Proposer has undertaken an assessment of the relevant legislation and does not believe that there are any legal impediments to the ability of NGT to enter into the bi-lateral arrangements described in this Proposal, although a change to the NTS Licence would be required. NGT's conclusions in respect of each authority are set out below:

#### **Gas Act**

Section 5 of the Gas Act contains certain prohibitions on unlicensed activities, which include that, “a person who...arranges with a gas transporter for gas to be introduced into, conveyed by means of or taken out of a pipe-line system operated by that transporter...shall be guilty of an offence unless he is authorised to do so by a licence.”

Historically, this has been interpreted to preclude NGT contracting directly with Consumers for gas DSR. Further to feedback received about the potential benefits of contracting directly in this way, NGT has re-examined this interpretation.

The arrangements that are referred to in this section of the Gas Act are between a Transporter and licenced Shippers; i.e. transportation arrangements that are discharged through the terms of the UNC under which, for example, shippers procure exit capacity, make nominations and receive allocations of gas which enable gas to be taken out of a pipe-line system. The DSR contract that this Modification seeks to enable would be an agreement by a Consumer to voluntarily alter the quantity of gas that will be offtaken in certain circumstances; the transportation arrangements that afford the Consumer the right to offtake gas would remain between the Transporter and the Shipper through the UNC. The same logic may be used to explain the existence of agreements that NGT has with operators at system entry and exit points (e.g. Network Entry Agreements and Network Exit Agreements) who may also be unlicensed entities and which provide for circumstances under which flow rates on and off the system may be altered.

#### **EU Balancing Code**

The EU Balancing Code<sup>1</sup> permits TSOs to undertake balancing actions through either 'short term standardised products' or use of 'balancing services'. Counterparties to 'short term standardised products' are only envisaged to be shippers (Arts 7(3) and 3(5)) however there are no restrictions on parties with whom a TSO may contract for 'balancing services'. A DSR arrangement with a Consumer would be consistent with the definition of 'balancing service' (Art 3(7)).

Article 8(1) of the Balancing Code entitles a TSO to procure balancing services for those situations in which short-term standardised products “will not or are not likely to provide the response necessary to keep the transmission network within its operational limits.” A balancing service to provide gas DSR fits with this definition because 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. In addition, the phrase “will not...provide the response necessary”, contemplates the use of balancing services before short term standardised products.

Article 8(5) contemplates the duration of a balancing service being for one year but permits the National Regulatory Authority to allow a longer period. Therefore, an Ofgem decision to permit the procurement of directly contracted DSR options up to 3 years out as proposed by this Modification would be compliant. Article 8(6) requires the TSO to review its use of balancing services annually and consider whether the use of balancing services could be reduced for the next year. NGT is obliged to produce an annual DSR report and procurement of DSR options each year shall be considered in the light of any longer term options already contracted for.

Whilst exercise would constitute a 'balancing action' as defined by the EU Balancing Code, the exercise volumes and prices for DSR executed directly with a Consumer should not be included within the calculation of system prices for the relevant day. Article 22 of the Balancing Code prescribes that system prices are to be determined by energy trades which may include locational products subject to NRA approval. There is no provision for the

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<sup>1</sup> As amended by the Gas (Security of Supply and Network Codes) (Amendment) (EU Exit) Regulations 2019

volume and price of actions associated with exercise of balancing actions that are not energy trades to be included.

### **NTS Licence**

A Licence change would be required to Special Condition 9.22 which currently mandates that a party making a DSR Offer must be a party to the UNC.

Further, this condition also requires that a DSR Offer which is exercised is to be treated as an Eligible Balancing Action under the UNC however ~~at present~~ this can ~~be only~~ be applied to DSR Market Offers transacted between effected between NGT and a User.

### **Specific Rationale**

The DSR contractual arrangements between NGT and consumers will sit outside UNC, therefore the UNC needs to be amended to the extent necessary to give effect to these provisions which NGT considers consist of the following areas:

#### **Residual Role of the User (Shipper)**

The Registered User would need to be informed by the Consumer (potentially via the supplier) of any DSR exercise in sufficient time to make the appropriate reduce its Output Nomination / Renomination for the Consumer and potentially adjust its gas procurement and Input Nominations. ~~NGT considers that the Consumer should be obliged to make this communication.~~

#### **Conditions of NGT/Consumer Contract**

NGT ~~would envisage~~ consulting on ~~the draft~~ terms (standard conditions of contract) that would govern DSR arrangements between NGT and Consumers to ensure no undue preference with both Consumers and Users concurrently with this Modification.

#### **Productscurement and execution mechanism**

The DSR products available to Consumers are proposed to be the same as are available to Users ~~under the prevailing UNC terms.~~ Modification 0845 proposes to introduce a D-5 product for Users therefore the products available directly to Consumers are proposed to be within-day, D-1 and D-5.

The existing exercise of DSR via a locational trade on the OCM is not suitable for exercise directly with Consumers, hence exercise of DSR directly with the Consumer will therefore constitute an instruction to reduce flow but would not be delivered as an 'energy trade'.

~~However, NGT considers that exercise would still constitute a 'balancing action' as defined by the EU Balancing Code and therefore the exercise costs should be included in the calculation of system prices according to the BAL Code Art 19(3).~~

#### **Funding & Payment**

The costs of DSR options via the proposed NGT/Consumer arrangements will be included in the aggregate DSR costs which are subject to the materiality threshold beyond which Ofgem consent would be required as explained in the DSR Methodology statement.

As DSR is a tool used to maintain an operational balance, NGT considers that it should remain cash-neutral to DSR option and exercise costs, hence such costs should be funded via Balancing Neutrality (i.e. socialised across all Users).

The new arrangements need to be structured such that NGT via the CDSP, may make DSR option and exercise payments directly to consumers.

**Inclusion of exercise costs within calculation of system prices**

~~The UNC needs to recognise that the DSR costs associated with exercise of DSR options established between NGT and consumers need to be included in the definition of Eligible Balancing Actions so that they contribute to the determination of system prices.~~

## 4 Code Specific Matters

### Reference Documents

[UNC TPD Section D5 and D7](#)

[NGT DSR Methodology Statement](#)

[EU Balancing Code](#)

[E1 Network Gas Supply Emergency Procedure](#)

### Knowledge/Skills

An awareness of the current DSR rules in UNC and where they feature in the emergency arrangements would be helpful. In the UNC, these are contained in TPD section D5.

## 5 Solution

~~It is proposed to modify t~~The UNC (and separately the Gas DSR methodology statement) will be modified to enable NGT to enter into contractual arrangements with Consumers based on the following business rules. The arrangement shall constitute a 'balancing service' for the purposes of the EU Balancing Code.

### Eligibility

1. NGT shall publish a DSR tender document not later than 31 August each year, to which any Class 1 Consumer (a Consumer that is daily metered with an Annual Quantity of greater than 2 million therms) may respond with an offer to reduce its demand.
2. NGT may accept such offer, thereby entering into an option arrangement with the Consumer for demand reduction. The option arrangement shall be supported and governed by standard conditions of contract which NGT shall publish on its website.

### Products

3. NGT shall invite offers for DSR options whereby the Consumer, (if required to do so by NGT in the circumstances defined in the UNC) agrees to limit its gas demand under three products:
  - a. Within-day
  - b. D-1
  - c. D-5
4. The DSR quantity against which the option fee shall be paid shall be greater than or equal to 100,000 kWh/d and determined as the difference between the average daily demand of that Consumer over the previous Winter Period (with any days on which DSR was invoked or a Network Gas Supply Emergency in operation

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removed from such determination) minus a tendered minimum quantity that the Consumer specifies will not be exceeded if NGT exercises the option.

**Procurement Process**

5. Not later than 31 August in each year, NGT shall publish an Invitation to Tender document for DSR options for the next Winter Period and the next two Winter Periods that eligible Consumers may respond to.

6. Each DSR Option offer that a Consumer may make shall be required to contain:

- a. An end-of-day energy quantity that the consumer will not exceed in the event of the product being exercised;
- b. In the case of a within-day option, the lead-time in hours that it requires to schedule demand reduction following notification of exercise by NGT;
- c. The identity of the consumer and its supply meter point reference that will deliver the demand curtailment, if exercised by NGT;
- d. A price ('option price'), specified in p/kWh/day, that the User requires to be paid in return for its commitment to making a quantity available for gas DSR purposes;
- e. A price ('exercise price') which the Consumer requires to be paid if its DSR option is exercised by NGT which may be specified either:

- i. in p/kWh or
- ii. in respect of a within-day or D-1 option, indexed to the System Average Price (SAP) applicable on the preceding day on which a Margins Notice or GBN is issued, or
- iii. in respect of a D-5 option, indexed to the System Average Price applicable on the preceding Day on which notification of exercise of the D-5 DSR Option is given by NGT to the relevant User (and may otherwise be understood as D-6 where D is the Day on which the demand reduction is to be effective).

7. A Consumer may specify in respect of its Supply Point:

- a. A maximum number of days on which NGT may exercise a DSR Option during a Winter Period;
- b. [A maximum number of consecutive days on which a DSR Option may be exercised;
- c. A minimum number of days that must elapse between Voluntary DSR Periods before exercise could again be triggered.]

8. A Consumer may submit a DSR option offer for more than one product from which NGT may accept one such offer.

9. A Consumer may offer one tranche of demand reduction only.

to procure DSR from any Class 1 gas Consumer (a Consumer that is daily metered with an Annual Quantity of greater than 2 million therms).

**Assessment of Offers**

10. Assessment shall be carried out by NGT using the combined price (option plus exercise) as the primary criterion and in accordance with the Option Selection Guidance in NGT's DSR Methodology.

11. NGT shall prioritise acceptance of within day offers over D-1 offers and D-1 offers over D-5 offers.

12. In its assessment, NGT shall also consider:

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a. Any restrictions to the number of days that DSR may be exercised on in a Winter Period that are specified by a Consumer.

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b. Which DSR Option Offer to accept in the case where a Consumer submits an offer for more than one DSR product in respect of the same Winter Period.

13. NGT shall assess DSR option offers from Consumers concurrently with any DSR Option offers from Users.

14. NGT shall validate that the demand reduction quantity is greater than or equal to 100,000 kWh/d

15. NGT shall validate that a Consumer has not submitted a DSR option offer via its User and directly to NGT. Where this is the case, NGT may select either or none of those offers.

16. NGT shall notify those Consumers that have submitted DSR option offers of their acceptance or rejection within 10 business days from the closure of the invitation to offer window, provided that this time may be extended if NGT wishes to exceed the aggregate value of DSR options specified in the DSR methodology.

17. Where NGT accepts an offer, NGT shall notify the Consumer of its average daily demand from the previous Winter Period and hence the DSR quantity that it has offered.

18. DSR options shall come into force from 01 November in the relevant year.

#### **Notifications**

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19. NGT shall notify the relevant Registered User and GDN of any DSR option that has been accepted between NGT and a Consumer.

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20. NGT shall notify the relevant GDN of any exercise of a DSR option held with a Consumer according to NGT's existing procedure.

21. NGT shall assume that the Consumer shall notify its Registered User (potentially via its Supplier) of any DSR exercise.

#### **Exercise of offers**

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22. The triggers for NGT to exercise a DSR option held by a Consumer shall be equivalent to those which apply to Users as set out in the UNC.

23. Where such triggers are met, NGT shall assess DSR options for exercise from Consumers alongside any such options held with Users.

24. Where NGT wishes to exercise a DSR option held by a Consumer it shall do so by notifying the relevant Consumer

a. In respect of a within-day option, at any time during the gas day

b. In respect of a D-1 option, not later than 17:00 on the preceding day

c. In respect of a D-5 option, not later than 17:00 on D-5

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25. Where NGT exercises a within-day option, the Consumer shall be obliged to offtake gas at a rate not exceeding 1/24<sup>th</sup> of its tendered minimum quantity from the time at which the exercise of that option becomes effective.

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26. Where NGT exercises a D-1 or D-5 option, the Consumer shall be obliged not to exceed its tendered minimum quantity for the relevant day.

27. For the purposes of determining the exercise fee, the demand reduction quantity shall be determined from the average historical daily demand as follows:

a. In respect of a within-day DSR Option,

$ADD - ((ADD / 24 \times HB) + (MinQ / 24 \times HA))$

where:

ADD = average daily demand of the Consumer over the previous Winter Period (with any days on which DSR was invoked or a Network Gas Supply Emergency in operation removed from such determination);

HB = number of hours in the Day before DSR is effective (including the lead-time);

MinQ = the tendered minimum offtake quantity;

HA = number of hours remaining in the Day after DSR is effective.

b. In respect of a D-1 and D-5 DSR Option, the difference between the Consumer's daily average demand in the previous Winter Period (with any days on which DSR was invoked or a Network Gas Supply Emergency in operation removed from such determination) and its tendered minimum offtake quantity.

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28. NGT shall validate the Consumer's compliance with any exercise instruction at D+6 (post exit close out). Where the required demand reduction has not been implemented, no exercise payment will be made.

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#### **Funding Arrangements, Invoicing and Cashout**

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29. A Consumer's option fee for a Winter Period shall be determined as  $(Q \times P) \times N$ , where

Q = the difference between the average daily demand for the relevant Consumer from the previous Winter Period (excluding any days on which DSR was invoked or a Network Gas Supply Emergency in operation removed from such determination) and the tendered minimum offtake quantity

P = the option price in p/kWh/day submitted by the Consumer

N = Number of days within the Winter Period

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30. Option fees payable to Consumers shall be funded from Balancing Neutrality.

31. NGT shall instruct the CDSP to make payment of DSR option fees to the relevant Consumers in monthly instalments for the duration of the relevant Winter Period, calculated as follows:

Total option fee divided by the number of days within the Winter Period, multiplied by the number of days in the month for which payment is being made.

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32. DSR option fees shall be paid to relevant Consumers in respect of each relevant month on the Invoice Due Date for Energy Balancing Invoices for that month (being 12 calendar days following the 23<sup>rd</sup> day following the end of that month).

33. The aggregate amount of DSR option fees payable to Consumers in respect of a month shall be processed as a debit on Users' Energy Balancing Invoices in respect of that month. Each User's share of this amount shall be determined by the percentage of its system throughput (determined by its allocated inputs and outputs (UDQIs and UDQOs)) versus total system throughput for that month.

34. Within 8 calendar days from the end of a month M, NGT will notify the CDSP of the price, quantity and cost of any DSR option exercised directly with a Consumer during month M.

35. The CDSP shall then issue credit invoices to the relevant Consumers, funded from the balancing neutrality account not later than M+20 calendar days.

36. The aggregate amount of DSR exercise fees payable to Consumers in respect of a month shall be processed as a debit on Users' Energy Balancing Invoices in respect of that month. Each User's share of this amount

shall be determined by the percentage of its system throughput (determined by its allocated inputs and outputs (UDQIs and UDQOs)) versus total system throughput for that month.

37. The quantity and price of any DSR option exercised directly with Consumers shall not contribute to imbalance cashout price determination for any Day.

38. Where a Consumer has failed to implement demand reduction when called, it shall become liable to return a proportion of its option fee to Balancing Neutrality on the same basis as applies to Users that hold DSR Options under the terms of UNC.

**Reporting**

39. Within 5 business days from the date on which NGT notifies participating Consumers of the acceptance or rejection of their DSR option offers, NGT shall notify all participating Consumers and all Users of the following outcomes from the DSR Option Invitation:

a. Total volumes offered

b. Total volumes accepted

c. Number of participating Consumers

d. Weighted average option price for all accepted DSR option offers

e. Total cost of accepted DSR option offers

f. Lowest option price accepted

g. Highest option price accepted

h. Lowest exercise price accepted, where offered as a p/kWh rate

i. Highest exercise price accepted, where offered as a p/kWh rate

j. Lowest exercise price accepted, where offered as an index

k. Highest exercise price accepted, where offered as an index

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Further, it is proposed that the UNC will be modified (as far as is necessary) to reflect:

- ~~• The ability of NGT to issue an invitation to procure DSR from eligible Consumers on an 'option and exercise' basis;~~
- ~~• the ability of an eligible Consumer to offer DSR to NGT with a lead-time of within-day, D-1 and D-5 in response to NGT's invitation;~~
- ~~• the ability of NGT to accept the Consumer's offer;~~
- ~~• an obligation on NGT to notify the relevant Registered User of any DSR option that has been agreed between NGT and a Consumer, subject to the Consumer having provided the relevant contact details of its Registered User to NGT as part of its DSR option offer;~~
- ~~• the existence of standard conditions of contract between NGT and each eligible Consumer whose option offer is accepted by NGT;~~
- ~~• the ability of NGT to exercise a DSR option provided by an eligible Consumer and therefore issue an instruction to the Consumer to reduce or curtail the offtake of gas;~~

- ~~the requirement for the price and energy quantity of each exercised option to constitute an Eligible Balancing Action for the purposes of the determination of the System Average Price (and determination of the System Marginal Buy Price and the System Marginal Sell Price);~~
- ~~the requirement that a Consumer may hold a DSR option either directly with NGT or via its shipper as provided for under the arrangements introduced by Modification 0822;~~
- ~~arrangements whereby DSR option and exercise payments will be made directly to Consumers (pursuant to the bi-lateral contractual arrangements) and for such costs to be included in Aggregate System Payments that are funded by Users via Balancing Neutrality arrangements.~~

~~It is proposed that notification obligations by NGT to GDNs of DSR options and exercise will be detailed in the Gas DSR methodology (as is the case currently) and that the publication requirements that currently apply in respect of the DSR Options Invitation would apply equally to directly contracted DSR.~~

## 6 Impacts & Other Considerations

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

No.

### Consumer Impacts

This Modification will provide eligible Consumers with an opportunity to contract directly with NGT for voluntary DSR at times when expected available supply is insufficient to meet forecast demand. If this results in increased participation, then the industry will have greater confidence that voluntary curtailment will be available to NGT. This will help to avoid a supply shortfall situation escalating to a GDE which would have detrimental impacts on a wider group of consumers.

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

Feedback received during the development and implementation of Modification 0822 suggests that the existing voluntary DSR contractual structure (whereby arrangements can only be made between NGT and the Registered User) may be a barrier to greater Consumer participation. This arises because adopting this (voluntary) intermediary role exposes the User to commercial and operational risks which may deter DSR being offered to Consumers. This may mean that Consumers that wish to offer DSR to NGT are not able to do so. This Proposal will remove this barrier and enable an increase in the quantity of system-wide DSR within the population of eligible sites.

### Impact of the change on Consumer Benefit Areas:

Area	Identified impact
<p><b>Improved safety and reliability</b></p> <p>Existing DSR arrangements have secured a relatively low volume of demand which NGT can call upon in the event of a forecast supply shortfall.</p> <p>This low volume of demand that can be reduced voluntarily could mean that the situation escalates towards a GDE, and the associated increased risks to network safety and reliability which result from falling pressures.</p> <p>This Modification is designed to further encourage voluntary DSR take-up such that this pre-emergency tool would be available to NGT in preventing such an escalation and mitigate such risks materialising, which could potentially impact all consumer groups.</p>	Positive
<p><b>Lower bills than would otherwise be the case</b></p> <p>The impacts on consumer bills from a GDE are unquantifiable in advance but likely to be significant as wholesale gas prices rise in response to the insufficient supply situation that would trigger such an event. The insurance premium to enable voluntary DSR that this Modification would enable would provide a mitigation against such an impact.</p>	Positive
<p><b>Reduced environmental damage</b></p> <p>We do not envisage any quantifiable impact on the environment as a result of this Modification. There is potential for additional consumers to offer DSR that may deliver it via fuel-switching to a more polluting source than natural gas but this is unknown at this stage.</p>	Unknown / negligible
<p><b>Improved quality of service</b></p> <p>Declaration of a GDE resulting in compulsory firm load shedding would result in a significant impact on quality of service that for those parties that may be unable to continue their gas offtake. This Modification helps to mitigate such a scenario arising.</p>	Positive
<p><b>Benefits for society as a whole</b></p> <p>The potential impact on heating capability, gas fired electricity generation, interruption to industrial production and knock-on impacts into wider supply chains that a GDE is capable of causing could result in a major economic and societal impact for the country. Putting in place additional means of striking DSR arrangements is expected to secure additional volumes of DSR which is available at times of system stress would provide additional mitigation against such risks arising.</p>	Positive

### Cross-Code Impacts

An equivalent Modification may be required to the iGT Code.

## EU Code Impacts

The EU Balancing Code<sup>2</sup> permits TSOs to undertake balancing actions through either 'short term standardised products' or use of 'balancing services'. Counterparties to 'short term standardised products' are only envisaged to be shippers (Arts 7(3) and 3(5)) however there are no restrictions on parties with whom a TSO may contract for 'balancing services'. A DSR arrangement with a Consumer would be consistent with the definition of 'balancing service' (Art 3(7)).

Article 8(1) of the Balancing Code entitles a TSO to procure balancing services for those situations in which short-term standardised products "will not or are not likely to provide the response necessary to keep the transmission network within its operational limits." A balancing service to provide gas DSR fits with this definition because 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. In addition, the phrase "will not...provide the response necessary", contemplates the use of balancing services before short term standardised products.

Article 8(5) contemplates the duration of a balancing service being for one year but permits the National Regulatory Authority to allow a longer period. Therefore, an Ofgem decision to permit the procurement of directly contracted DSR options up to 3 years out as proposed by this Modification would be compliant. Article 8(6) requires the TSO to review its use of balancing services annually and consider whether the use of balancing services could be reduced for the next year. NGT is obliged to produce an annual DSR report and procurement of DSR options each year shall be considered in the light of any longer term options already contracted for.

Whilst exercise would constitute a 'balancing action' as defined by the EU Balancing Code, the exercise volumes and prices for DSR executed directly with a Consumer should not be included within the calculation of system prices for the relevant day. Article 22 of the Balancing Code prescribes that system prices are to be determined by energy trades which may include locational products subject to NRA approval. There is no provision for the volume and price of actions associated with exercise of balancing actions that are not energy trades to be included.

## Central Systems Impacts

An means of invoicing Consumers for both credits and debits mechanism will be required and for funds to be paid out from and paid into to make option payments to Consumers from Balancing Neutrality.

The CDSP will also be required to recover any option and exercise payments from all Users in proportion to their throughput via Energy Balancing Invoices.

NGT will also require historical demand data for tendering Consumers to be provided by the CDSP to enable determination of the demand reduction quantity for assessment purposes (and for exercise purposes in the case of D-1 and D-5 products). NGT envisages that this would be conducted on the same basis as the option payments that are currently made to shippers but as the counterparties would be non-shippers, it is expected that a new or adapted CDSP process would be required. There would also be a requirement for NGT to make payment to participating Consumers in the event of DSR exercise which would be recoverable via Balancing Neutrality.

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<sup>2</sup> As amended by the Gas (Security of Supply and Network Codes) (Amendment) (EU Exit) Regulations 2019

## 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.	None
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 encourage voluntary DSR and thus mitigate the risk of a supply shortage escalating to declaration of a GDE. Should a GDE be declared then compulsory firm load shedding 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) “co-ordinated, efficient and economic operation of (i) the combined pipeline system and/or (ii) the pipeline system of one more other relevant gas transporters”** is also furthered by this Modification, also due to its mitigation of a GDE 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 LDZ level too.

## 8 Implementation

Implementation is sought by early August 2023 to allow time for a procurement event to be conducted and DSR options allocated to consumers prior to the Winter Period 2023/24. The following implementation dates are therefore suggested:

If a decision is received by 04 August 2023, the implementation date should be 07 August 2023.



If a decision is received after 04 August 2023 but by 07 August 2023, the implementation date should be 08 August 2023.

If a decision is received later than 07 August 2023, implementation should be on the next business day thereafter.

Consequential changes to NGT's Gas DSR Methodology statement will also be required and consultation on these changes is proposed to be being conducted immediately following approval of this Modification. It will also be necessary to amend Special Condition 9.22 of the NTS Licence to remove the current requirement for a party making a DSR Offer to be a party to the UNC.

It is proposed that this process would be initiated following a positive decision on this Modification with NGT operating under derogation in the interim.

## 9 Legal Text

### Text Commentary

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### Text

The legal text and associated commentary shall be provided for the Workgroup to review at the appropriate time.

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## 10 Recommendations

### Proposer's Recommendation to Panel

Panel is asked to:

- Agree that Authority Direction should apply; and
- Refer this Modification to a Workgroup for assessment.

## 11 Appendix 1: DSR Condition in the NTS Licence

Note: Ofgem has granted a derogation in relation to paragraph 9.22.3(c) to enable NGT to accept DSR offers where a Margins Notice is in force as well as a Gas Balancing Notification.

### Special Condition 9.22 Implementing and maintaining the Demand Side Response Methodology for use after a Gas Balancing Notification

#### Introduction

9.22.1 This condition sets out the licensee's obligations to:

- a) have in place and maintain the Demand Side Response Methodology for assessing and accepting Demand Side Response Offers;
- b) where directed by the Authority, run a trial of the Demand Side Response Methodology with any revisions proposed under paragraph 9.22.6(b); and
- c) following such a trial, send to the Authority a report on the outcome of the trial and a version of the Demand Side Response Methodology amended to address issues identified by the licensee during the trial and, if appropriate, containing any further proposed revisions to the Demand Side Response Methodology following conclusion of the trial.

#### Part A: The Demand Side Response Methodology

9.22.2 The licensee must have in place and maintain a Demand Side Response Methodology approved by the Authority.

9.22.3 The licensee must ensure that the Demand Side Response Methodology:

- a) ensures that any party making a Demand Side Response Offer is a party to the Uniform Network Code;
- b) sets out the criteria for determining that particular DMC Supply Point Components are DMC Supply Point Components in respect of which a party may not make Demand Side Response Offers;
- c) allows the licensee to accept Demand Side Response Offers only where a Gas Balancing Notification is in place or within stage 1 of a Gas Deficit Emergency;
- d) demonstrates compatibility with existing market arrangements by setting out the manner in which any Demand Side Response Offers accepted by the licensee are to be treated as Eligible Balancing Actions and included in the System Clearing Contract, System Marginal Buy Price and System Marginal Sell Price;
- e) promotes, and further facilitates, parties making Demand Side Response Offers to the licensee through open and transparent market-based arrangements;
- f) does not unduly preclude the emergence of commercial interruption arrangements;
- g) minimises distortions and unintended consequences on existing market arrangements and the principle of parties balancing their own positions in the wholesale gas market; and
- h) ensures that Demand Side Response is procured in a manner consistent with the licensee's duties under the Act and, in particular, the licensee's obligation to operate the pipeline system to which this licence relates in an efficient, economic and co-ordinated manner.

#### Part B: Revising the Demand Side Response Methodology

- 9.22.4 The licensee must, at least once in every period of two Regulatory Years, review, and if appropriate revise, the Demand Side Response Methodology in consultation with interested parties.
- 9.22.5 The consultation must allow a period of not less than 28 days in which interested parties can make representations to the licensee.
- 9.22.6 During the period of 7 days beginning with the date of completion of the consultation, the licensee must send to the Authority:
- a) a report on the outcome of the review;
  - b) a statement of any proposed revisions to the Demand Side Response Methodology that the licensee (having regard to the outcome of the review) reasonably considers would better achieve the Demand Side Response Methodology principles; and
  - c) any written representations (including proposals for revising the statement that have not been accepted by the licensee) that were received from interested parties during the consultation process and have not been withdrawn.
- 9.22.7 The Authority, within 28 days of receiving a report under paragraph 9.22.6(a) and a statement under paragraph 9.22.6(b), will:
- a) approve any proposed revisions;
  - b) direct the licensee to conduct a trial of the revised Demand Side Response Methodology to assess the effectiveness of the methodology and any revisions proposed by the licensee under paragraph 9.22.6(b); or
  - c) reject any proposed revisions.
- 9.22.8 In considering whether to approve the licensee's proposed revisions to the Demand Side Response Methodology, the Authority will have regard to whether they are consistent with the objectives in paragraph 9.22.3.

**Part C: Trial and implementation**

- 9.22.9 Where the Authority directs the licensee to conduct a trial of the Demand Side Response Methodology comprising the proposed revisions as outlined in paragraph 9.22.7(b), the licensee must during the period of 28 days beginning with the last day of the trial submit to the Authority a report on the outcome of the trial, including any further proposed revisions (having regard to the outcome of the trial) to the Demand Side Response Methodology.
- 9.22.10 Following completion of the trial and during the period of 28 days beginning with the date of receipt of the submissions under paragraph 9.22.9, the Authority will:
- a) approve any proposed revisions and direct the licensee to:
    - i. develop appropriate modifications to the Uniform Network Code and other processes and systems to enable it to implement the revisions to the Demand Side Response Methodology;
    - ii. implement the revisions to the Demand Side Response Methodology as soon as is reasonably practicable and once the modifications, processes and systems under paragraph 9.22.10(a)(i) are complete; and
    - iii. publish the final revised Demand Side Response Methodology on its website and in such other manner as the Authority may direct; or
  - b) reject any proposed revisions to the Demand Side Response Methodology.

9.22.11 Where the Authority does not provide a direction under 9.22.7 or 9.22.10, the licensee must not implement the proposed revisions.

**Part D: Exception to compliance with condition**

9.22.12 The licensee may apply to the Authority for a derogation relieving the licensee of any of its obligations under this condition.

9.22.13 The Authority may, having consulted with the licensee and interested parties, direct that the licensee must temporarily or permanently cease operation of the Demand Side Response Methodology.