









UNC Modification	At what stage is this document in the process?
<h1>UNC 083X:</h1> <h2>Introduction of a D-5 Exercise Demand Side Response Scheme</h2>	<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid green; background-color: #008000; color: white; padding: 5px; display: flex; align-items: center; justify-content: center;"> 01 Modification </div> <div style="border: 1px solid blue; padding: 5px; display: flex; align-items: center; justify-content: center;"> 02 Workgroup Report </div> <div style="border: 1px solid purple; padding: 5px; display: flex; align-items: center; justify-content: center;"> 03 Draft Modification Report </div> <div style="border: 1px solid orange; padding: 5px; display: flex; align-items: center; justify-content: center;"> 04 Final Modification Report </div> </div>
<p>Purpose of Modification:</p> <p>This Modification would extend the within day and D-1 DSR Option arrangements that were introduced by Modification 0822 to enable National Grid NTS ('National Grid') to procure DSR Options that may be exercised with a 5 day lead-time.</p>	
<p>Next Steps:</p> <p>The Proposer recommends that this Modification should be treated as urgent and should proceed as such under a timetable agreed with the Authority</p>	
<p>Impacted Parties:</p> <p>High: Large industrial and commercial consumers, Shippers, Suppliers, National Grid, On-the-Day Commodity Market (OCM) Market Operator</p> <p>Low: Distribution Network Operators</p> <p>None:</p>	
<p>Impacted Codes:</p> <p>Independent Gas Transporter Code</p>	

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Timetable		
Modification timetable:		
Pre-Modification Discussed	01 December 2022 and 05 January 2023	 Any questions?
Date Modification Raised	06 January 2023	Contact: Joint Office of Gas Transporters
Ofgem decision on urgency	09 January 2023	 enquiries@gasgovernance.co.uk
Modification Proposal issued for consultation	09 January 2023	 0121 288 2107
Consultation Close-out for representations	13 January 2023	Proposer: Phil Hobbins, National Grid
Final Modification Report available for Panel	17 January 2023	 philip.hobbins@nationalgrid.com
Modification Panel recommendation	19 January 2023	 07966 865623
Final Modification Report issued to Ofgem	19 January 2023	Transporter: National Grid
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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 0822¹ take the form of distinct “*option*” and “*exercise*” stages with separate payments made for each. Ahead of each forthcoming Winter Period, National Grid issues an invitation to all Users seeking commitments, in advance, to offer DSR quantities on behalf of consumers for the next three Winter Periods. When a Margins Notice (MN) or Gas Balancing Notification (GBN) has been issued, National Grid 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. As a MN is issued at D-1 and a GBN may be issued either at D-1 or within day, it is only those consumers that are able to commit to curtail their gas flow within these lead-times which are currently able to participate in Gas DSR.

Why

In its decision letter for Modification 0822, Ofgem encouraged National Grid to consider how consumer access to gas DSR could be broadened for this winter and beyond. National Grid 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 National Grid 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.

Given this, National Grid is of the view that being able to consider the supply / demand balance position for a Gas Day at an earlier stage (in the context of offers to voluntarily reduce demand) and making voluntary curtailment arrangements at this stage, may increase the demand volumes that are able to be curtailed. National Grid also recognises that a forecast imbalance 5 days in advance is subject to greater uncertainty than D-1 and within day forecasts.

How

It is proposed to modify the UNC (and separately the Gas DSR methodology statement) to expand National Grid’s invitation to offer to include D-5 DSR Options for the remainder of the current Winter Period and for future Winter Periods (01 November to 30 April), whereby National Grid will invite Users to offer demand reduction with a 5 day lead time on behalf of consumers that meet the eligibility criteria for DSR participation. If specified criteria are met at D-5 (i.e. a forecast supply shortfall of a defined magnitude), National Grid may exercise such D-5 DSR Options to reduce demand for Gas Day D. If the option is exercised, National Grid would commit to this at D-5 (unlike the within day and D-1 arrangements where the User has the obligation to post a DSR Market Offer which National Grid may choose not to accept) with the actual DSR trade executed on D-1 when the OCM opens and the consumer would be required to reduce its offtake of gas on Gas Day D.

¹ <https://www.gasgovernance.co.uk/0822>

2 Governance

Justification for Urgency

Ofgem's guidance for the circumstances under which a Modification Proposal would be considered for Urgent procedures specifies that it should be linked to an imminent or current issue that if not urgently addressed may cause a significant commercial impact on parties, consumers or other stakeholders, a significant impact on the safety and security of the electricity and/or gas systems or cause a party to be in breach of any relevant legal requirements.

In its decision letter for Modification 0822, Ofgem encouraged National Grid to consider how consumers' access to DSR may be broadened to further contribute towards the effectiveness of the DSR tool for this winter and beyond. Additional Gas DSR arrangements have the potential to further enhance a tool that reduces the likelihood and minimises the severity and duration of a Gas Demand Emergency (GDE). Stakeholder engagement suggests that increasing the notice period for which such voluntary curtailment arrangements are struck will further stimulate the market for DSR and is therefore required urgently to allow the benefits to be realised in time for the latter part of this winter. National Grid has already sought non-binding expressions of interest in D-5 DSR Options via its invitation to offer that was published on 18 November 2022 which closed on 23rd December 2022 and this Modification, if implemented, would enable the acceptance of any such offers.

If this Modification proceeds along the timetable proposed, with an Authority decision on 27th January 2023, it is expected that D-5 DSR Options could be exercisable by mid-February 2023, thus expanding the DSR products and enhancing the commercial tools available for use this winter.

The Russian invasion of Ukraine and subsequent reduction in gas supplies to the EU has created material risks to global gas markets and the EU and GB gas markets are linked both via physical assets and market arrangements. National Grid therefore considers that it is prudent to enable D-5 DSR Options as a mitigation against these risks; they 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.

Requested Next Steps

To realise the benefits as early as practicable this winter, this Modification should be treated as urgent and should proceed as such under a timetable agreed with the Authority.

3 Why Change?

Background

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 National Grid by posting a DSR Market Offer onto the OCM DSR Locational Market on behalf of a consumer which National Grid 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 need 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 voluntarily restrict 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 consideration of DSR Market Offers (formerly limited to when a Gas Balancing Notification (GBN) was in place) was extended to where a Margins Notice (MN) is issued. From this point National Grid may exercise 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 National Grid to consider how consumers' access to DSR may be broadened to further contribute towards the effectiveness of the DSR tool for this winter and beyond. Extending the lead-time for exercise of a DSR Option is a means of doing so that could be implemented during this winter.

Driver for further DSR Reform

Engagement with large industrial consumers and their associations during the development of Modification 0822 indicated that one of the reasons such contracts have not historically been struck is that the lead-time for exercise of a DSR Market Offer is challenging for many end consumers to react to.

To enable voluntary curtailment ahead of D-1 a further revision of the trigger for activating such arrangements would be required. As noted in Modification 0822, any such consideration must be balanced against the potential consequences of intervention in the market by National Grid outside of prompt timescales when supply and demand data is less certain, impacts on its role as residual balancer and its obligations to discharge this function economically and efficiently.

The Russian invasion of Ukraine and subsequent reduction in gas supplies to the EU has created material risks to global gas markets and the EU and GB gas markets are linked both via physical assets and market arrangements. National Grid therefore considers that it is prudent to consider enhanced voluntary curtailment arrangements to be available as a mitigation against these risks; they 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, National Grid's engagement with relevant stakeholders indicates that consumers that *could* potentially offer voluntary curtailment are less likely to do so due to the timing constraints inherent within the current DSR arrangements and the lead-times required by some consumers to curtail their gas demand. This would mean that one of the tools available to National Grid to mitigate a material imbalance between national demand and supply that could progress to a GDE may not provide as much demand reduction as it potentially could. Whilst it is not guaranteed that implementation of this Modification will change this outcome, it 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.

4 Code Specific Matters

Reference Documents

- Modification [0504](#) “Demand Side Response Methodology Implementation”
- Modification [0822](#) “Reform of Gas Demand Side Response Arrangements”
- Modification [0833](#) “Enabling DSR Market Offers to be made by Non-Trading System Transactions”
- National Grid [Gas Demand Side Response Methodology](#)
- [Decision](#) on the proposed modifications to the DSR Methodology of National Grid’s Gas Transporter Licence and Decision further to National Grid’s request for Derogation from Special Condition 9.22.3(c) of its Gas Transporter Licence.
- [Procedure for Network Gas Supply Emergency](#) (‘E1’)
- Special Condition 9.22 in the NTS Licence that sets out Gas DSR requirements and principles is reproduced in Appendix 1.

Knowledge/Skills

An awareness of the current DSR rules in UNC (as revised by Modification 0822) and where they feature in the emergency arrangements would be helpful. In the UNC, these are contained in TPD sections D5 and D7 <https://www.gasgovernance.co.uk/TPD>.

5 Solution

It is proposed that the UNC is modified to extend the arrangements that have been implemented by UNC0822 which introduced within-day and D-1 DSR Options to also include D-5 DSR Options. National Grid would have the ability to enter into such arrangements and ultimately exercise such options at D-5 in respect of day D if it forecasts a supply deficit on day D of 14 mcmd or greater. The rationale for this threshold is that 13.7 mcm is the target forecast error for National Grid’s D-2 to D-5 reputational demand forecasting incentive and as such can be viewed as a reasonable level of uncertainty. If this condition was met, National Grid would then decide whether to exercise D-5 DSR Options.

The business rules for UNC0822 shall apply as far as possible in respect of D-5 Options, subject to amendments in the following key areas:

- The annual Invitation to Offer process shall include D-5 options (noting that the first such process initially seeks non-binding D-5 DSR Options which may be accepted by National Grid following implementation of this Modification);
- D-5 DSR Options shall be procured each year for the current / forthcoming Winter Period only and not for Winter Periods in Y+1 and Y+2; the rationale being that National Grid and industry may wish to bring forward further reforms and enhancements to DSR arrangements ahead of Winter 2023/24 and a limitation to the next winter would provide for greater flexibility to implement such reforms and provide consistency in future years;
- The timescales by which Users post their DSR Market Offers and National Grid accepts them pursuant to accepted D-5 DSR Options;
- A new trigger for D-5 exercise and definition of the period within which DSR Market Offers pursuant to D-5 DSR Options shall be executed.

Business Rules

A: Product Definition

1. A D-5 DSR Option shall be a 'balancing service' as contemplated by the EU Balancing Code, whereby a User may offer, and National Grid may accept, a commitment in advance on behalf of a consumer to reduce gas demand with 5 Days' notice.
2. For a DSR Option exercised at D-5, the start time for demand reduction shall be 0500 on gas day D with the reduction completed by the end of gas day D. For example, if a DSR option is exercised on gas day 16th February, the demand reduction day (D) would be the gas day 21st February.

B: Procurement Process

3. Subject to BR 5, the DSR Invitation to Offer rules set out in UNC TPD D7 shall be extended to include D-5 DSR Options within the same procurement process, provided that D-5 DSR Options may be accepted by National Grid for the current Winter Period (for 2022/23) or forthcoming Winter Period (for future years' procurement) only.
4. A User may submit offers on behalf of a Consumer for one of a D-5, D-1 or within day DSR product.
5. The first allocation of D-5 DSR Options for winter 2022/23 shall be determined as further specified in these business rules from expressions of interest invited in the first D-1 and Within Day DSR Invitation to Offer process that opened on 18 November 2022 and closed on 23 December 2022. Subsequent invitations shall be issued not later than 31 August in each calendar year.
6. Each D-5 DSR option offer that Users may make shall be required to contain:
 - a. The Winter Period each offer is made in respect of;
 - b. An energy quantity of DSR with a minimum daily offer of 100,000 kWh/d;
 - c. The identity of the consumer and its supply meter point reference that will deliver the demand curtailment, if exercised by National Grid;
 - d. The consumer's current Annual Quantity, which shall not be less than 2 million therms per annum (58.6 GWh/annum);
 - e. A price ('option price'), specified in p/kWh/day, that the User requires to be paid in return for its commitment to making the relevant quantity available for gas DSR purposes;
 - f. A price ('exercise price') which the User requires to be paid if its associated DSR Market Offer is accepted by National Grid which may be specified either:
 - i. in p/kWh or
 - ii. indexed to the System Average Price (SAP) applicable on D-1, where D is the Day on which notification of exercise of the D-5 DSR Option is given by National Grid 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 User may submit multiple D-5 DSR Option offers for tranches of load reduction in accordance with BR6(b) on behalf of the same supply meter point.
8. The invitation to offer period for D-5 DSR Options shall be open for not less than 15 Business Days.
9. Where a User has submitted a D-5 DSR Option Offer(s) in response to the Invitation to Offer process that was launched on 18 November 2022, National Grid shall, within 5 Business Days from the implementation

date of this Modification, contact that User and request consent to include such Offer(s) in its assessment process. The User shall then have a further 10 Business Days to consent to or decline National Grid's request. Where the User consents, National Grid shall include such Offer(s) in its assessment process. Where the User does not so consent or where no response is received by the User within the 10 Business Day period, National Grid shall deem the Offer to be withdrawn and notify the User accordingly. The User shall not be permitted to amend any D-5 DSR Option Offer during this period nor shall any other User be permitted to make such an offer.

C: Assessment of Offers

10. When selecting DSR Option Offers, National Grid may prioritise acceptance of within day DSR Options first, followed by D-1 Options offers and then D-5 Options.

11. The aggregate value of D-5 DSR Options accepted by National Grid in respect of a Winter Period (or part thereof) shall be determined in accordance with the Option Selection Guidance set out in National Grid's DSR Methodology.

12. There shall be no limit on the aggregate energy quantity of D-5 DSR option offers that National Grid may accept pursuant to its invitation to offer.

13. Where a User offers an exercise price that is indexed in accordance with BR6(f)(ii), National Grid shall determine such price for the purposes of its assessment as being the forward price for the relevant winter as published in the Argus European Natural Gas Report on the day the invitation to offer closes, provided that for any such offers submitted in the first invitation to offer for Winter Period 2022/23, this will no longer be available, therefore the Balance of Month price for the current month in which the assessment is being conducted from such report shall be used.

14. Accepted D-5 DSR option offers shall come into force immediately following notification by National Grid to the relevant User who shall have responsibility to communicate this to the relevant Consumer(s).

D: Accepted D-5 DSR Options

15. Where D-5 DSR Options are in force, National Grid shall, for each Day in the relevant Winter Period, assess expected available supply against forecast demand on D-5.

16. Where National Grid projects an end of day national supply deficit at D-5 of 14 mcmd or greater in respect of Day D, National Grid may exercise D-5 DSR Options as described in these business rules.

17. Where the condition in BR16 is satisfied and National Grid has decided to exercise D-5 DSR Options, National Grid shall issue an Active Notification Communication to all Users that it is doing so and a D-5 Voluntary DSR Period shall become effective as described in BRs 47 and 48.

18. National Grid shall then review all accepted D-5 DSR Options and notify the relevant Users not later than 17:00 on D-5 which D-5 DSR Options it is exercising. Within 60 minutes of such notifications having been issued, National Grid shall publish the total quantity, total exercise costs and highest price of the D-5 DSR Options that it has exercised.

19. Such Users are expected to notify the relevant Consumer as soon as is reasonably practicable thereafter and shall then be obliged to post DSR Market Offers in respect of Day D by not later than 10:00 on D-1, which:

i) in the case of a DSR Market Offer posted on the OCM, National Grid shall accept not later than 12:00 on D-1; and

ii) in the case where a User that does not have OCM access submits a DSR Market Offer as a Non-Trading System Transaction, National Grid shall accept not later than 14:00 on D-1.

20. The quantity (Trade Nomination Quantity) associated to the DSR Market Offer to be posted by each relevant User shall be equal to the lesser of:

- a. its accepted option quantity (in kWh/d); and
- b. the prevailing Output Nomination at the time of exercise on D-5 for Day D for the relevant consumer.

21. The price at which the DSR Market Offer shall be posted shall be equal to the User's accepted exercise price as notified by National Grid under BR18.

22. The relevant User shall reduce its Output Nomination in respect of the relevant Consumer by a quantity that is equal to the Trade Nomination Quantity.

23. Where National Grid has issued a notification to a User pursuant to BR 18 and either no nomination or a nomination between zero and 100,000 kWh has been made for day D at D-5 in respect of the relevant Consumer, the User shall remain entitled to receive its option payment but be relieved of its obligation to post a DSR Market Offer and no exercise payment shall apply.

24. Where National Grid has issued a notification pursuant to BR 18, the User may not increase its Output Nomination for the relevant Consumer in respect of day D from the time at which the notification of exercise by National Grid is received by the User.

25. National Grid will review the position on the following Day for the 'new' D-5 and if expected available supply is projected to be below forecast demand for the new day D then National Grid may give a further notification to the User that the consumer must maintain its demand reduction on the new Day D. In this case the shipper must post a DSR Market Offer according to the above process.

26. Users that do not have D-5 DSR Options in force shall not be eligible to make DSR Market Offers on D-1 unless a Voluntary DSR Period also applies in respect of that Day (triggered by a Margins Notice and/or Gas Balancing Notification).

The following business rules 27 to 46 were established as part of Modification 0822 and shall also apply to D-5 DSR Options.

27. Where a User fails to post a DSR Market Offer in accordance with the above business rules, it shall become liable for a charge equal to:

$$OP \times 1.1 \times (NP / CP)$$

where:

OP = the total value of the User's option payment for that Winter Period,

NP = the total number of that User's non-compliant DSR Market Offers and failure to post DSR Market Offers within that Winter Period

CP = the total number of Days on which the User was obliged to post a DSR Market Offer within that Winter Period.

For example, if the DSR market was opened on 4 separate days across a Winter Period and the User failed to post or posted a DSR Market Offer that was in breach of its obligations pursuant to its accepted option offer on 1 of those days but posted compliant DSR Market Offers on the other 3 days then the User's penalty would be equal to 110% of its option payment multiplied by 0.25.

28. National Grid shall review the performance of each relevant User for the purposes of making its determinations pursuant to BR 27 as soon as is reasonably practicable after the end of the relevant Winter Period and shall instruct the CDSP to issue the relevant invoice thereafter.

29. National Grid shall provide appropriate supporting information to each User to whom an invoice is issued pursuant to BR 27 and the User may dispute such invoice by providing its own supporting information to National

Grid. If such a dispute occurs, National Grid and the relevant User shall work together in good faith to agree a resolution.

30. Where National Grid accepts a D-5 DSR option offer and the consumer's Annual Quantity subsequently reduces below the threshold specified in BR 6(d), that DSR option offer shall remain in full force and effect.

31. Where a User ceases to be the Registered User for a consumer in respect of which a D-5 DSR Option offer has been accepted pursuant to the National Grid invitation to offer process:

- a. That User shall, as soon as reasonably practicable, notify National Grid of the change of Registered User;
- b. That User's obligations to provide DSR Market Offers in respect of that consumer shall cease with effect from the date of transfer of Registered User;
- c. National Grid shall instruct the CDSP to cease making any further option payments to that User in respect of that consumer;
- d. The new Registered User may inform National Grid that it wishes to adopt the same DSR option obligations in place of the retiring User, in which case National Grid shall instruct the CDSP to make the relevant subsequent option payments to the new Registered User.

32. Where a D-5 DSR option applies in respect of a Supply Point which becomes Isolated,

- a. The Registered User shall so notify National Grid as soon as reasonably practicable following the date of Isolation;
- b. National Grid shall instruct the CDSP to cease making any further option payments to that User based on the accepted DSR options in place at that time; and
- c. The User's obligations to provide DSR Market Offers in respect of such options on behalf of that consumer shall cease.

33. Where BR 32 applies and the Supply Point is Re-established, the provisions of BR 32 shall continue to apply, notwithstanding that the Registered User may submit D-5 DSR option offers in respect of that Supply Point in response to future DSR invitations to offer issued by National Grid.

34. Where a User is terminated, National Grid shall instruct the CDSP to cease making any further option payments to that User and all D-5 DSR options in relation to that User shall automatically lapse.

35. A User may not cancel any D-5 DSR option within the Winter Period to which that option relates or in the time between the acceptance of that D-5 DSR option and the next Winter Period.

36. Commercial terms detailing the basis on which D-5 option payments shall be passed through to the consumer by the shipper/supplier are outside the scope of the UNC and shall be detailed in arrangements agreed between the shipper/supplier and consumer.

E: Payment and Funding Arrangements

37. A User's total D-5 DSR option payment shall be determined as each D-5 DSR option quantity multiplied by the relevant option price (in p/kWh/day) multiplied by the number of the days in the Winter Period (or part thereof) that has been accepted by National Grid pursuant to the invitation to offer.

38. Option payments shall be funded from, and payments under BR 27 made to, balancing neutrality. National Grid shall instruct the CDSP to make D-5 DSR Option payments to the relevant Users on a monthly basis for the duration of the relevant Winter Period, calculated as follows:

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

39. D-5 DSR Option payments shall be made to relevant Users in respect of each relevant month on the Invoice Due Date for Energy Balancing Invoices for that month (being 12 calendar days following the 23rd day following the end of that month).

40. Where BR 31 (a) to (c) applies, the option payment for the relevant month shall be calculated pro-rata up to the date on which the retiring User ceased to be the Registered User.

41. Where BR 31 (d) applies, the option payment for that month shall be calculated pro-rata from the date on which the new User became the Registered User.

42. Where BR 32 applies, the option payment for the relevant month shall be calculated pro-rata up to the date of Isolation.

43. The accepted option prices that are used to determine the option payments shall not contribute to imbalance cashout price determination for any Day.

44. The aggregate amount of option payments for each relevant month within the Winter Period shall be processed through the balancing neutrality mechanism as a debit on each User's Energy Balancing Invoice for 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.

45. All accepted DSR Market Offers, whether or not linked to an option payment, shall continue to be treated as Eligible Balancing Actions and thus shall continue to contribute to the formation of cashout prices for the relevant gas day.

F: Reporting

46. Within 5 business days from the date on which National Grid notifies participating Users of the acceptance or rejection of their D-5 DSR option offers, National Grid shall notify all Users of the following outcomes from the invitation to offer:

- a. Total volumes offered
- b. Total volumes accepted
- c. Number of participating Users
- d. Number of participating consumers
- e. Weighted average option price for all accepted DSR option offers
- f. Total cost of accepted DSR option offers
- g. Lowest option price accepted
- h. Highest option price accepted
- i. Lowest exercise price accepted, where offered as a p/kWh rate
- j. Highest exercise price accepted, where offered as a p/kWh rate
- k. Lowest exercise price accepted, where offered as an index
- l. Highest exercise price accepted, where offered as an index

G: D-5 Voluntary DSR Period

47. A new definition of 'D-5 Voluntary DSR Period' shall be created, being the period within which Users shall post and National Grid shall accept DSR Market Offers pursuant to D-5 DSR Options.

48. Where National Grid has issued an Active Notification Communication to Users pursuant to BR17, the D-5 Voluntary DSR Period' shall start at 08:00 on D-1 and shall end at 04:59 on Day D, unless National Grid determines that there is a requirement to exercise D-5 DSR Options on the next Day(s), in which case the D-5 Voluntary DSR Period shall end at 04:59 on the last day D when D-5 exercise is no longer required.

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 provide incentives for large consumers of gas, who require more advance notice of curtailment, to offer voluntary DSR to National Grid at times when expected available supply is insufficient to meet forecast demand and would enable such consumers to recover their required value of turning down their gas offtake rather than at the Emergency Curtailment Trade Price (currently 30 day average SAP) that would otherwise apply in the case of firm load shedding. If such voluntary offers are forthcoming and accepted then the industry will have greater confidence that voluntary curtailment will be available to National Grid during winter if required. This will help to avoid such a 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 from large industrial consumers and their associations suggests that there has historically been little incentive for them and their shippers/suppliers to enter into voluntary DSR arrangements due to an expectation that their commercially firm gas supply would always be physically available. This has been borne out in practice as a GDE involving firm load shedding has never been required in GB. Sources of back-up fuel supplies have therefore been decommissioned or mothballed at many such sites to save costs and minimise emissions. Therefore if a GDE was called and involuntary curtailment was required, many sites would be unprepared for the disruption and adverse impact to their operations, for which they would receive a payment at the Emergency Curtailment Trade Price (currently 30 day average SAP).

The introduction (via Modification 0822) of a financial incentive designed to cover the costs among consumers, Shippers and Suppliers of setting up the capability to deliver voluntary DSR and extending the trigger for sites to respond if called upon to provide this response is expected to enhance the incentives to enter into such arrangements. However the Proposer is of the opinion that *further* extension of the trigger (i.e. provision of greater notice to curtail offtake) is expected to make voluntary curtailment commercially attractive to a wider range of consumers.

The proposed financial benefit would however need to be funded by all other physical Shippers and ultimately all consumers, effectively as an insurance premium against the risk of a GDE.

Impact of the change on Consumer Benefit Areas:	
Area	Identified impact
<p>Improved safety and reliability</p> <p>Where insufficient physical supply to meet demand is forecast, the lack of ability to take sufficient demand off the system 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 encourage additional voluntary curtailment such that this pre-emergency tool would be available to National Grid in preventing such an escalation and mitigate such risks materialising, which could potentially impact all consumer groups.</p>	Positive
<p>Lower bills than would otherwise be the case</p> <p>The impacts on consumer bills from a GDE are unquantifiable in advance but are likely to be significant as wholesale gas prices would rise in response to the insufficient supply situation that would trigger such an event. The insurance premium to enable further voluntary curtailment that this Modification would enable would provide a mitigation against such an impact. However if voluntary curtailment would not have been required based on the actual supply / demand position observed on the Gas Day during a Winter Period then the D-5 Demand Reduction would still be funded by Users through balancing neutrality which may then be passed on to consumers.</p>	Positive
<p>Reduced environmental damage</p> <p>If D-5 Demand Reduction is called upon then this Modification may result in a limited amount of fuel-switching. If the back-up fuel used is diesel then this would have a higher emissions intensity than natural gas but is only likely to need to be used on a few days and sites would still be obliged to operate any fuel-switching within their permitted hours.</p>	Marginally Negative
<p>Improved quality of service</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>Benefits for society as a whole</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 a comparatively modest financial incentive relative to the potential scale of these impacts as proposed by this Modification would provide additional mitigation against such risks arising.</p>	Positive

Cross-Code Impacts

The Proposer has been informed that there are Consumers connected to IGT networks that have an Annual Quantity greater than 2 million therms per annum and would therefore meet the threshold for DSR participation. It is therefore expected that an equivalent modification would be required to the IGT Code.

EU Code Impacts

Regulation 8(3) of the EU Balancing Code (as transposed into UK law) requires that TSOs' balancing services must be procured via a tender process which this Modification would be compliant with. The proposal to include the costs of exercise within imbalance cashout processes is also consistent with Article 19(3) of this EU Network Code.

Central Systems Impacts

No impacts on central systems are envisaged in order to implement this Modification. It is envisaged that payments and any penalty invoices (due pursuant to the D-5 Demand Reduction mechanism) would be made to Users via the CDSP's 'request to bill' process and existing system functionality used to recalculate energy balancing invoices to smear the costs among all other shippers.

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 further voluntary curtailment and thus mitigate the risk of a supply shortage escalating to declaration of a GDE. Should a GDE be declared and progress to Stage 2 then compulsory firm load shedding would result in disruption and inefficiency in the operation and use of the network as some parties that would wish to be taking gas would be prevented from doing so. This should be balanced against the possibility that the intervention to call demand off the system at D-5 turns out to be unnecessary as the market responds to the D-5 forecast position and more accurate supply/demand information is available closer to the day. National Grid considers that on balance it would be beneficial to take precautionary action ahead of time if consumers are willing to curtail their demand for a consumer defined compensation.

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 30 January 2023 to allow time for subsequent processes to be completed such that D-5 DSR Options can be in place by mid-February 2023 for the remainder of this Winter Period. The following implementation dates are therefore suggested:

If a decision is received by 27 January 2023, the implementation date should be 30 January 2023.

If a decision is received after 27 January 2023 but by 30 January 2023, the implementation date should be 31 January 2023.

If a decision is received later than 31 January 2023, implementation should be on the next business day thereafter.

Complementary changes to National Grid’s Gas DSR Methodology statement are also required and consultation on these changes is proposed to be being conducted concurrently with this Modification. It will also be necessary to amend Special Condition 9.22 of the NTS Licence to enable National Grid to accept DSR Market Offers in the circumstances envisaged by this Modification. It is proposed that this process would be initiated following a positive decision on this Modification with National Grid operating under derogation in the interim.

9 Legal Text

Text Commentary

The legal text and associated commentary shall be provided prior to the beginning of the consultation period.

10 Recommendations

Proposer’s Recommendation to the Authority

The Authority is asked to agree that this Modification should be treated as Urgent and should proceed as such according to a timetable agreed by the Authority.

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 National Grid to accept DSR offers where a Margins Notice is in force as well as a Gas Balancing Notification. A further derogation would be required to permit acceptance of such offers in the circumstances envisaged by this Modification if it is implemented.

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.