UNC Modification	At what stage is this document in the process?

UNC 0822:

Reform of Gas Demand Side Response Arrangements

01	Modification
02	Workgroup Report
03	Draft Modification Report
04	Final Modification Report

Purpose of Modification:

To include provisions within the UNC for National Grid NTS to:

- Administer an invitation to offer process for Gas Demand Side Response (DSR),
- Introduce option payments to Users that arrange with consumers to provide DSR in advance of winter, and
- Extend the trigger for opening the DSR market from the issue of a Gas Balancing Notification to also include issue of a Margins Notice at the day ahead stage.

Next Steps:

The Proposer recommends that this Modification should be:

treated as urgent and should proceed as such under a timetable agreed with the Authority

Impacted Parties:

High: Large industrial and commercial consumers, Shippers, Suppliers, National Grid NTS

Low: Distribution Network Operators

None:

Impacted Codes:

None

Contents

Timetable

Modification timetable:	
Pre-Mod Discussion	01 September 2022
Modification raised and sent to Ofgem	05 September 2022
Ofgem decision on urgency	07 September 2022
Modification Proposal issued for consultation (10 days)	08 September 2022
Consultation close-out for representations	22 September 2022
Final Modification Report available for Panel	26 September 2022
Modification Panel recommendation	28 September 2022
Final Modification Report issued to Ofgem	28 September 2022

Any questions?

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1 Summary

What

The current Gas Demand Side Response (DSR) arrangements provide a mechanism for large consumers of gas to offer to reduce their demand in return for a payment that they define during times of system stress when a Gas Balancing Notification (GBN) is in operation, whereby a User may post a quantity of DSR a ('DSR Market Offer') onto the On-the-Day Commodity Market (OCM), on behalf of a consumer, which National Grid NTS may accept as the only price taker in the DSR market.

In order for a User to be able to place DSR Market Offers, the terms on which the User does so first 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 may need to be prepared to incur either production losses and/or be able to switch to using a back-up fuel. The current nature of DSR compensation is on an 'exercise only' basis as the payment is only made following the acceptance of a DSR Market Offer by National Grid NTS; there are no provisions within the UNC to recognise that costs are incurred for parties to be available to make such offers, regardless of whether demand reduction is actually required. Stakeholder feedback suggests that User-supplier-consumer contracts do not at present contain DSR provisions because the incentives to do so have not been considered sufficiently strong when judged against the probability of a gas shortage arising.

In addition, the current DSR arrangements are predicated on the basis that consumers will be capable of curtailing their gas demand within the gas day on which NGG accepts a DSR Market Offer. Feedback from industrial consumers has indicated that this would not be achievable for many sites and that notification from National Grid NTS to reduce demand further in advance is required.

Why

Gas DSR is a potentially valuable balancing tool that National Grid NTS may deploy to avoid an imbalance between national supply and demand escalating to a Stage 2 GDE but reforms to the DSR regime are needed to stimulate the market. The current arrangements have been in place since 2016 and on the one occasion since then when the DSR Locational Market was opened following the issue of a GBN during the 'Beast from the East' event in March 2018, no DSR Market Offers were available to National Grid NTS. Recent feedback from shippers and manufacturing industry participants suggests that this experience will be repeated if the DSR Locational Market is opened again. Reform is therefore needed to make the DSR product more attractive to encourage its take-up so that the scheme can utilised within this winter and subsequent winters if required.

How

It is proposed to modify the UNC (and separately the Gas DSR methodology statement) to enable National Grid NTS to issue an invitation to all Users seeking commitments, in advance, to offer DSR volumes on behalf of consumers during a Winter Period whose Annual Quantity is greater than 2 million therms (58.6 GWh). Users would be invited to offer DSR volumes at both an option price, to be available for DSR, which the User would be paid on behalf of the end consumer, and an exercise price, which the User on behalf of the end consumer would be paid if DSR was actually required. Users would be eligible to make such offers for the current / forthcoming winter and the next two Winter Periods. Such payments would then be passed by the User via the supplier to the consumer providing the physical flow curtailment, subject to the contractual terms negotiated between these parties.

Aggregate option payments would be funded from balancing neutrality, however would not form part of cashout price determination and would be subject to a value cap specified in the DSR Methodology, initially set at £5m per Winter Period. National Grid NTS considers that this value strikes an appropriate balance between being able to secure a quantity of DSR based on feedback from industrial consumers without imposing excessive costs on Users that would contribute to its funding. However, should National Grid NTS wish to accept option offers for an aggregate value which is greater than that specified in the DSR methodology, the methodology shall provide that National Grid NTS may notify the Authority that it wishes to do so which the Authority may veto. For the avoidance of doubt, exercise payments, i.e. if a DSR Market Offer is accepted by National Grid NTS on the OCM DSR Locational Market, would contribute to cashout price determination, consistent with the current arrangements.

It is also proposed to extend the trigger for opening the DSR Locational Market to also include the issue of a Margins Notice by National Grid NTS, in addition to the existing trigger of the issue of a Gas Balancing Notification. This would enable consumers that are able to commit to curtail their gas flow at the day ahead stage (but not within-day) to participate.

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.

Gas DSR has the potential to be a valuable tool to reduce the likelihood and minimise the severity and duration of a GDE, however, based on stakeholder engagement, maintaining the existing arrangements will mean that DSR Market Offers are unlikely to be available this winter if required. This Modification aims to stimulate the market for DSR and is therefore required urgently to allow time for National Grid NTS to run an invitation to offer process and for DSR contracts to be put in place between consumers, shippers and suppliers to support DSR offers. If this Modification proceeds along the timetable proposed, it is expected that this process will be concluded by mid-December 2022.

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 NTS therefore considers that it is prudent to incentivise DSR Market Offers 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.

Requested Next Steps

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

Industry engagement has been conducted both with UNC parties and representatives from large manufacturing industry to inform its development. UNC meeting material can be found at:

Additional Transmission Workgroup Meeting 14 July 2022 | Joint Office of Gas Transporters (gasgovernance.co.uk)

Additional Transmission Workgroup Meeting 18 July 2022 | Joint Office of Gas Transporters (gasgovernance.co.uk)

[Transmission Workgroup Meeting 04 August 2022 | Joint Office of Gas Transporters (gasgovernance.co.uk)]

[Transmission Workgroup Meeting 01 September 2022 | Joint Office of Gas Transporters (gasgovernance.co.uk)]

3 Why Change?

The Gas Demand Side Response (DSR) arrangements were introduced into the UNC in 2016 by Modification 0504 'Demand Side Response Methodology Implementation'. They provide a mechanism for large consumers of gas to offer to reduce their demand in return for a payment which they define during times of system stress when a GBN is in operation. It is the User that discharges this function with National Grid NTS by posting a DSR Market Offer onto the OCM DSR Locational Market on behalf of a consumer which National Grid NTS may accept. Such voluntary demand reduction is 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 GDE.

In order for a User to be able to post a DSR Market Offer, the terms on which the User does so first 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 incur either a loss of production or be able to switch to using a back-up fuel.

The current nature of DSR compensation is on an 'exercise only' basis as the payment is only made following acceptance of a DSR Market Offer by National Grid NTS; there are no provisions within the UNC to recognise that costs are incurred for parties to be available to make such offers, regardless of whether demand reduction is actually required. Stakeholder feedback suggests that such arrangements between these parties are not currently in place because the incentives to do have not been considered sufficiently strong when judged against the probability of a gas shortage arising.

Engagement with large industrial consumers and their associations prior to the raising of this Modification indicated that such contracts do not exist at present for a number of reasons:

- The removal of interruptible contracts and institution of 'universal firm' arrangements following the implementation of Modification 0195AV in 2009 led to a widespread assumption that a 'financially firm' contract means that the physical supply is always available;
- There has never been a gas supply emergency resulting in firm demand being forcibly curtailed and National Grid NTS' Winter Outlook publications have consistently stated that there will be sufficient gas to meet demand in the scenarios that have been analysed;
- Many consumers that operated formerly on interruptible contracts have since removed their supplies of alternative back-up fuel to save on cost and emissions and equally new large industrial sites have tended not to invest in such back-up supplies;
- National Grid NTS does not contract directly with consumers and shippers/suppliers have had little incentive to market the DSR product;
- There are no payments available to consumers to stimulate this market and without them, the cost and preparations required to be available for DSR to cover an event which is perceived to have a low likelihood of materialising cannot be justified; and
- The lead-time for exercise of a DSR Market Offer is challenging for many end consumers to commercially react to.

The concept of option payments (i.e. payments to consumers to be available for DSR whether or not an instruction to curtail their demand is actually called) was considered at the time when the current DSR rules were put in place but was rejected for three main reasons:

- Additional costs would be passed to consumers to cover against a low likelihood event;
- The establishment of a competitive DSR market might be prevented; and
- National Grid NTS would have been going beyond its remit at the time in relation to gas DSR which was to provide a route to market for daily metered (DM) consumers to offer demand response.

Whilst the occurrence of a GDE remains a low likelihood event, National Grid NTS considers that DSR could help to prevent such an occurrence and that the latter two reasons are now less applicable and that a gas DSR market will not emerge without an additional financial stimulus.

Reforms to arrangements for the supply side of the gas market are not being proposed because the nature of upstream arrangements already incentivises parties delivering gas to the system to maximise their flows. On the demand side for industrial consumers, the focus is on product manufacture to meet orders and fulfil obligations in a wider supply chain for which the offtake of gas is a critical input but is not the primary focus of these businesses.

Our stakeholder engagement has also revealed that many consumers who are eligible to participate in gas DSR would not currently be willing to react commercially to curtail their demand within the current gas day. There is therefore a need to revise the trigger for opening the DSR Locational Market to enable acceptance of DSR Market Offers with a longer lead-time. This must be balanced against the potential consequences of intervention in the market by National Grid NTS outside of prompt timescales when supply and demand data is less certain, our role as residual balancer and our obligations to discharge this function economically and efficiently.

At present, the OCM DSR Locational Market is opened upon National Grid NTS issuing a GBN. The only time that has happened was during the Beast from the East cold snap in March 2018 when a series of supply failures occurred and no DSR Market Offers were made. The gas supply picture is different for 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 NTS therefore considers that it is prudent to incentivise DSR Market Offers 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.

If this change is not made, our engagement with relevant stakeholders indicates that if supply is constrained this winter and the remaining supply is unable to meet demand there will be no DSR Market Offers available. This would mean that one of the tools available to National Grid NTS to mitigate a material imbalance between national demand and supply progressing to a GDE would not be capable of serving its purpose. Whilst it is not guaranteed that implementation of this Modification will change this outcome, it should serve to increase the likelihood of such demand curtailment being available if needed.

4 Code Specific Matters

Reference Documents

- Modification 0504 ''Demand Side Response Methodology Implementation' Microsoft Word - Final Modification Report 0504 v2.0.doc (gasgovernance.co.uk)
- National Grid DSR Methodology Statement https://www.nationalgrid.com/gas-transmission/document/135366/download

- E1 Network Gas Supply Emergency Procedure: https://www.nationalgrid.com/gas-transmission/document/136281/download
- The Special Condition 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 and where they feature in the emergency arrangements would be helpful. In the UNC, these are contained in TPD section D5.

5 Solution

The UNC will be modified to enable National Grid NTS to issue an invitation to all Users to commit to post DSR Market Offers for the current / forthcoming Winter Period and the next two Winter Periods. Such quantities would be physically delivered (if called upon by National Grid NTS) as now by a reduction in gas demand by consumers with an Annual Quantity greater than 2 million therms per annum. (For information, a multi-year option is proposed because the consumer may require longer term certainty in its revenue stream from DSR to recover the costs it would incur to be available for DSR). The User would receive a payment ('option payment') for each accepted offer from this process which would be passed on to those consumer(s) within its portfolio that would deliver the demand reduction physically, subject to terms agreed between the consumer and its shipper/supplier. Such acceptance would also create a UNC obligation on that User to place a DSR Market Offer onto the OCM DSR Locational Market in respect of each consumer that is available for National Grid NTS to accept on each day when the DSR Locational Market is open.

Option payments shall be funded from balancing neutrality and shall not exceed a value specified in the DSR Methodology, initially set at £5m per Winter Period, without further oversight by the Authority. Whilst it is not possible to estimate the costs of a GDE against which option payments would provide a form of insurance against, it is considered important to provide an expectation of the cap on the maximum potential exposure for Users. This figure is expected to be sufficient for National Grid NTS to be able to accept a volume of DSR based on the indicative costs of demand turndown provided to National Grid NTS by industrial consumers and would be capable of revision in the future based on market conditions and experience when the DSR Methodology falls due for review. However, should National Grid NTS wish to accept option offers for an aggregate value which is greater than that specified in the DSR methodology, the DSR methodology shall provide that National Grid NTS may notify the Authority of the higher value that it wishes to accept which the Authority may veto. Option payments shall not contribute to the determination of imbalance cashout prices for any day because they will be applicable to the whole Winter Period and are unlikely to reflect the cost of imbalance for any particular day.

The trigger for opening the OCM DSR Locational Market shall be extended from the issue of a GBN by National Grid NTS (which may be issued within day or day ahead) to also include the issue of a Margins Notice, which may only be issued at the day ahead stage. This aspect of the Modification seeks to strike a balance between National Grid NTS retaining its role to only intervene in the market as the residual balancer within prompt market timescales and lengthening the lead-time which consumers have to provide their curtailment response, which a number of consumers have stated is crucial to enable their participation. Whilst lead-time of D-1 will still not be sufficient for many consumers to participate, (some industrial consumers require a matter of weeks to schedule gas demand turndown), we believe that National Grid NTS should not be able to accept DSR Market Offers prior to D-1 as this would fundamentally change its residual balancing role and prior to this lead-time, Users, as the primary balancers of the system, should maintain the responsibility of securing supplies to meet their demand portfolios. Where the DSR Locational Market has been opened following the issue of a Margins Notice, it shall be closed at the end of the next gas day if a GBN or GDE has not been subsequently declared and unless a further Margins Notice has been issued.

Where a User has a day ahead option accepted, that User shall be obliged to post a DSR Market Offer for at least the lesser of the accepted quantity or its prevailing Output Nomination, within 1 hour of the DSR Locational Market being opened and would not be permitted to increase the relevant Output Nomination during the period when the DSR market is open. National Grid NTS shall not accept any day ahead DSR Market Offers after 17:00 on D-1. Where the option applies within day, the quantity to be posted as the DSR Market Offer shall reduce over the course of the day on a 1/24th basis, subject to a maximum 6 hour lead-time as specified in the business rules below. If the User fails to post the relevant DSR Market Offer having had an option accepted then it shall incur a penalty charge equal to 110% of the value of its option payment, provided that this shall be reduced proportionately based on the number of DSR Market Offers that were accurately posted during that Winter Period.

For information:

- National Grid NTS shall conduct a consultation on complimentary changes to its Gas Demand Side Response Methodology in parallel with this Modification's consultation, subject to a derogation from the Authority that permits a shorter consultation period than the minimum 28 days that is required by the NTS Licence; and
- A change to National Grid's NTS Licence will be required to enable National Grid NTS to accept DSR Market Offers following the issue of a Margins Notice as well as a GBN. It is proposed that a Licence change would be initiated following a positive decision by the Authority on this Modification and associated DSR Methodology, and that permission for National Grid NTS to operate in this way could be facilitated by a derogation in the interim.

Business Rules

Invitation to Offer

1. National Grid NTS shall issue an invitation to offer to all Users seeking DSR option offers; commitments to make DSR Market Offers for the current or forthcoming Winter Period and the next two Winter Periods thereafter.
2. The first invitation to offer shall be issued not later than 30 November 2022 and subsequent invitations shall be issued not later than 31 August in each year.
3. The User may specify that DSR option offers in respect of each consumer may only be accepted for all Winter Periods for which offers have been made.
4. Each 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;
    c. The identity of the consumer and its supply meter point reference number that will deliver the demand curtailment, if exercised by National Grid NTS;
    d. The consumer's current Annual Quantity, which shall not be less 2 million therms per annum (58.6 GWh/annum);
    e. A price ('option price'), specified in p/kWh, 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 may be specified either:

i. in p/kWh or

ii. indexed to the System Average Price (SAP) applicable on the preceding day on which a Margins Notice or GBN is issued,

which the User requires to be paid if its associated DSR Market Offer is accepted by National Grid NTS on the Gas DSR Locational Market;

g. Whether the offer is for a within-day or day ahead DSR Market Offer; and

h. For a within day option offer, the lead-time that shall apply between National Grid NTS' acceptance of the associated DSR Market Offer and the consumer commencing reduction in its gas offtake which shall not exceed 6 hours (for a day ahead option offer, the start time for demand turndown shall be 0500 on the next Day).

5. A User may submit multiple DSR option offers for tranches of load reduction on behalf of the same consumer.

6. A User may withdraw or modify a DSR option offer up to 17:00 on the invitation close date but not after that time.

7. The invitation to offer period shall be open for not less than 15 business days.

National Grid NTS Assessment of Offers

8. National Grid NTS may accept compliant DSR option offers received in price order (from lowest to highest determined as an aggregate of option price and exercise price) provided that it may prioritise acceptance of DSR option offers that may be exercised within a gas day over those that may be exercised at the day ahead stage.

9. In respect of each Winter Period, the aggregate value of DSR option offers accepted by National Grid NTS shall be determined in accordance with guidance on option selection set out in National Grid NTS' DSR Methodology. The value of any DSR option offers that have already been accepted in respect of a Winter Period from a prior year's invitation to offer shall be taken into account when determining acceptance.

10. Where a User has specified that a DSR option offer for a Winter Period may only be accepted if other DSR option offers for other Winter Periods are also accepted, National Grid NTS will either accept all such offers or none of them.

11. There shall be no limit on the aggregate energy quantity of DSR option offers that National Grid NTS may accept for each Winter Period pursuant to its invitation to offer.

12. Where a User offers an exercise price that is indexed in accordance with BR 4(f)(ii), National Grid NTS 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, the 'Winter 2022' contract will no longer be available, therefore the Q1 2023 price quoted in such report shall be used.

13. National Grid NTS shall notify those Users 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 National Grid NTS wishes to exceed the aggregate value of DSR options specified in the DSR methodology.

14. Accepted DSR option offers shall come into force immediately following notification by National Grid NTS to the relevant User.

Reporting

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

    a. Total DSR volumes offered

    b. Total DSR volumes accepted

    c. Number of participating Users

    d. Number of participating consumers

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

    f. Lowest option price accepted

    g. Highest option price accepted

    h. Total cost of accepted DSR option offers, calculated (for each accepted offer) as option price multiplied by option quantity

    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 to the preceding day's SAP

    l. Highest exercise price accepted, where offered as an index to the preceding day's SAP.

Accepted Offers from the National Grid Invitation Obligations

16. Where a User has a DSR option offer accepted, that User shall be obliged to post a DSR Market Offer in respect of the relevant consumer on the OCM DSR Locational Market for the relevant day by a time not later than 1 hour of that market being opened in the relevant Winter Period.

17. A User shall be obliged to post the relevant DSR Market Offer for all days when the DSR Locational Market is open in the relevant Winter Period, regardless of whether National Grid NTS has accepted such an offer on a prior day.

18. Where the DSR option is a within-day offer:

    a. the User shall be obliged to post a DSR Market Offer with an associated quantity which is at least equal to the lesser of:

        i. the accepted option quantity; and

        ii. the prevailing Output Nomination for the Supply Point

    multiplied by H/24 where H is the period in hours from the time at which the DSR Market Offer shall be effective (in accordance with the User's offered lead-time) until the end of the Day.

    b. The User may specify that such quantity shall reduce for each remaining hour of the Day by the quantity determined in paragraph (a) divided by the number of hours remaining in the Day, and

    c. If at any time such reduced quantity is below 100,000 kWh, the DSR Market Offer shall be withdrawn in accordance with UNC TPD D5.1.2(c).

19. Where the DSR option is a day ahead offer, the User shall be obliged to post a DSR Market Offer with an associated quantity which is at least equal to the lesser of:

    a. the accepted option quantity; and

    b. the prevailing Output Nomination for the Supply Point.

20. Where a DSR option has been accepted with an indexed exercise price as contemplated in BR 4(f)(ii), the price at which the User shall post its DSR Market Offer shall not be greater than that indexed price.
21. National Grid NTS may not accept a day ahead DSR Market Offer later than 17:00 on D-1.
22. Where a User fails to post a DSR Market Offer in accordance with the above business rules, it shall incur a penalty charge equal to
    a. OP x 1.1 x (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 compliant DSR Market Offers posted by that User 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.
23. National Grid NTS shall review the performance of each relevant User for the purposes of making its determinations pursuant to BR 22 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.
24. National Grid NTS shall provide appropriate supporting information to each User to whom an invoice is issued pursuant to BR 23 and the User may dispute such invoice by providing its own supporting information to National Grid NTS. If such a dispute occurs, National Grid NTS and the relevant User shall work together in good faith to agree a resolution.
25. Where National Grid NTS accepts a DSR Market Offer, the existing UNC obligations shall apply to that User to amend the Output Nomination for the relevant consumer to an end of day quantity that is not less that the accepted quantity within that DSR Market Offer and the User shall not increase the relevant Output Nomination while the DSR Locational Market remains open.
26. A User may post a DSR Market Offer in respect of a Supply Point for which did not participate or have an option offer accepted in an invitation to offer process and therefore where no option payment is applicable.
27. Where National Grid NTS accepts a DSR option offer and the consumer's Annual Quantity subsequently reduces below the threshold specified in BR 4(d), that DSR option offer shall remain in full force and effect.
28. Where a User ceases to be the Registered User for a consumer in respect of which an option offer has been accepted pursuant to the National Grid NTS invitation to offer process:
    a. That User shall, as soon as reasonably practicable, notify National Grid NTS 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 NTS 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 NTS that it wishes to adopt the same DSR option obligations in place of the retiring User, in which case National Grid NTS shall instruct the CDSP to make the relevant subsequent option payments to the new Registered User.

29. Where a DSR option applies in respect of a Supply Point which becomes Isolated,

    a. The Registered User shall so notify National Grid NTS as soon as reasonably practicable following the date of Isolation;

    b. National Grid NTS 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.

30. Where BR 29 applies and the Supply Point is Re-established, the provisions of BR 29 shall continue to apply, notwithstanding that the Registered User may submit DSR option offers in respect of that Supply Point in response to future DSR invitations to offer issued by National Grid NTS.

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

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

33. A User may cancel a DSR option that has been accepted by National Grid NTS in a previous year's invitation (in respect of a Winter Period in Gas Year Y+1 or Y+2) by giving notice to National Grid NTS not later than 31 July in the Gas Year prior to that Winter Period.

34. Commercial terms detailing the basis on which 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.

Payment and Funding Arrangements

35. A User's total option payment shall be determined as the aggregate value of each DSR option quantity multiplied by the relevant option price that has been accepted by National Grid NTS pursuant to the invitation to offer.

36. Option payments shall be funded from, and penalty payments made to, balancing neutrality. National Grid NTS shall instruct the CDSP to make 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.

37. 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).

38. Where BR 28(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.

39. Where BR 28(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.

40. Where BR 29 applies, the option payment for the relevant month shall be calculated pro-rata up to the date of Isolation.

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

42. 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.

43. 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 day.

Opening and Closure of the OCM DSR Locational Market

44. The OCM DSR Locational Market shall be opened following the issue by National Grid NTS of either a Margins Notice or a Gas Balancing Notification.

45. Closure of the OCM DSR Locational Market shall occur at the earlier of:

    a. Where a Margins Notice has been issued, and unless superseded by a Gas Balancing Notification, at the end of the gas day to which that notice relates;

    b. Where a Gas Balancing Notification has been issued, the time at which that notification is no longer in force;

    c. Declaration by the NEC of a Stage 2 of a GDE.

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 additional incentives for large consumers of gas, both power generation and industrial, to offer voluntary demand side response to National Grid NTS at times when expected available supply is insufficient to meet forecast demand. If such voluntary offers are forthcoming and accepted then the industry will have greater confidence that voluntary curtailment will be available to National Grid NTS 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 be compensated at the 30 day SAP price for each day of the emergency.

Introducing 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 would enable such sites to establish and recover their own 'value of lost load' (which is likely to be in excess of the standard compensation price), whilst also helping to avoid the need for firm load shedding more generally.

The proposed option payments 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. National Grid NTS considers that an aggregate cost in the region of £5m, which if taken up would deliver a quantity of voluntary DSR commitment, would represent fair value for the industry as a whole in this regard, given the much higher commercial impacts for a wider range of consumers that would result if compulsory firm load shedding were required.

Impact of the change on Consumer Benefit Areas:	
Area	Identified impact
Improved safety and reliability At present, when the DSR market is opened, National Grid NTS has no foreknowledge about whether any DSR offers will be posted. Experience and feedback suggests that without this Modification, no such offers will be available. This lack of ability to take 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. This Modification is designed to encourage voluntary DSR take-up such that this pre-emergency tool would be available to National Grid NTS in preventing such an escalation and mitigate such risks materialising, which could potentially impact all consumer groups.	Positive
Lower bills than would otherwise be the case 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. However if DSR Market Offers are not required during a Winter Period then the option payments would still be funded by Users through balancing neutrality which may then be passed on to consumers.	Positive
Reduced environmental damage If Gas DSR 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 by a few large consumers.	Marginally negative

Improved quality of service 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.	Positive
Benefits for society as a whole 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.	Positive

Cross-Code Impacts

None.

EU Code Impacts

None.

Central Systems Impacts

No impacts on central systems are envisaged in order to implement this Modification. It is envisaged that option payments and any penalty invoices would be made to Users via Xoserve'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 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 mid-October 2022 to allow time for commercial agreements between Users, suppliers and consumers to be executed to support DSR options ahead of the first invitation to offer process which this Modification proposes shall be issued not later than 30 November 2022. The following implementation dates are therefore suggested:

If a decision is received by 14 October 2022, the implementation date should be 17 October 2022.

If a decision is received by 17 October, the implementation date should be 18 October 2022.

If a decision is received later than 17 October, implementation should be on the next business day thereafter.

Complimentary changes to National Grid NTS' 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 NTS to accept DSR Market Offers following the issue of a Margins Notice as well as a GBN; it is proposed that this process would be initiated following a positive decision on this Modification with National Grid NTS 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 and consist of a new section 7 and amendment to the definition of 'Voluntary DSR Period' in UNC TPD Section D 'Operational Balancing and Trading Arrangements' and a small amount of text to be inserted into the Transition Document Part IIC to recognise minor differences that are to apply for the first DSR invitation to offer compared with the enduring arrangements.

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

"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."