

## Stage 02: Workgroup Report

# 0407

## Standardisation of notice periods for offtake rate changes for all National Grid NTS Exit Users

At what stage is this document in the process?



This modification seeks to remove the existing LDZ rule in the Offtake Arrangements Document (OAD) which mandates that a GDN is limited to altering its rate of offtake (by LDZ) by a maximum of 5% every 2 hours. The proposed replacement rule will only turn this rule 'on' when National Grid NTS determine its necessity by a published methodology.



The Workgroup recommends that this modification should now proceed to consultation.



High Impact:  
GDNs, National Grid Transmission and large embedded customers in LDZs



Medium Impact:  
NTS Direct Connects



Low Impact:  
None

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## About this document:

This report will be presented by the Workgroup to the panel on 18 July 2013.

The panel will consider whether the modification is sufficiently developed to proceed to Consultation and to submit any further recommendations in respect of the definition and assessment of this modification.



### Any questions?

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# 1 Summary

## Is this a Self-Governance Modification?

The Modification Panel determined that this is not a self governance modification.

## Why Change?

The Offtake Arrangements Document (OAD) currently has a rule, which limits GDNs alteration of aggregate rate of offtake in any LDZ, by a maximum of 5% of its prevailing rate every two hours (this is commonly known as the 2 hour 5% rule). Changes are required for the following reasons:

- (i) This rule has been shown historically to be operationally unnecessary on the majority of days.
- (ii) All GDNs have been unable to comply with this rule on a consistent basis for their LDZs, due to the mix of domestic loads and embedded large sites in some LDZs, where larger sites business requirements dictate that they need to ramp up and down more swiftly than the GDN can contractually accommodate due to its obligation to comply with the 2 hour 5% rule.
- (iii) There is no evidence that since the rule has been in place (since 2005), excursions from full compliance by the GDNs has in any way harmed the safe and efficient operation of the total system.
- (iv) National Grid NTS commissioned analysis which indicated that the investment required by if the rule were to be removed would be up to £1.4 billion
- (v) Analysis completed by the Gas Distribution Networks (to build sufficient localised storage) to warrant compliance to the 2 hour 5% rule as currently drafted in OAD indicated costs in the order of £350 million .

## Solution

The solution is for the 2 hour 5% rule to be switched **off**, and for National Grid NTS to operate a (up to) 3 stage warning/communication to all Users (Shipper Users and DNO Users) that due to potential system constraints, in a particular area of the network which could affect one or more LDZs, the 2 hour 5% rule may need to be or is being switched **on**.

## Relevant Objectives

The following relevant objectives are considered to be enhanced by the implementation of this modification;

(a) Efficient and economic operation of the pipe-line system,(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, c) Efficient discharge of the licensee's obligations, (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

## Implementation

No implementation timescales have been identified. National Grid NTS will be utilising an existing methodology and communication route which is currently accessible by all Users.

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## 2 Why Change?

The Offtake Arrangements Document (OAD) currently has a rule, which limits GDNs alteration of aggregate rate of offtake in any LDZ, by a maximum of 5% of its prevailing rate every two hours (this is commonly known as the 2 hour 5% rule). Changes are required for the following reasons:

- (i) This rule has been shown historically to be operationally unnecessary on the majority of days.
- (ii) All GDNs have been unable to comply with this rule on a consistent basis for their LDZs, due to the mix of domestic loads and embedded large sites in some LDZs, where larger sites business requirements dictate that they need to ramp up and down more swiftly than the GDN can contractually accommodate due to its obligation to comply with the 2 hour 5% rule.
- (iii) There is no evidence that since the rule has been in place (since 2005), excursions from full compliance by the GDNs has in any way harmed the safe and efficient operation of the total system.
- (iv) National Grid NTS commissioned analysis which indicated that the investment required by if the rule were to be removed would be up to £1.4 billion
- (v) Analysis completed by the Gas Distribution Networks (to build sufficient localised storage) to warrant compliance to the 2 hour 5% rule as currently drafted in OAD indicated costs in the order of £350 million .

Furthermore the following points are considered to be relevant:

- a) Potential large loads (i.e. Power Stations) who are considering connecting to the GDN pipeline system have expressed concern about the impact of the 2 hour 5% rules could have on their operations if this rule was passed on contractually by the GDNs. Given the nature of power stations business, this ramp up/ramp down requirement is integral to any business proposition. The retention of this 2 hour 5% rule has direct effects on potential investment in the GDNs
- b) The 2 hour 5% rule does not apply to loads connected to the National Grid NTS pipeline system, and as such any potential and/or existing directly connected loads to the Transmission system, are potentially able to operate in a more flexible manner than equivalent connectees to the GDN system.

### 3 Solution

The solution is for the 2 hour 5% rule to be switched **off**, and for National Grid NTS to operate a (up to) 3 stage warning/communication to all Users (Shipper Users and DNO Users) that due to potential system constraints, in a particular area of the network which could affect one or more LDZs, the 2 hour 5% rule may need to be or is being switched **on**.

The mechanics of the proposed solution is to manage the existing OAD 2 hour 5% rule in a similar fashion to that which currently exists in UNC TPD J4.5.6 and J4.5.7 which allow National Grid NTS to accept a changed rate of offtake with a reduced notice period, as long as it does not give rise to an Operational Balancing Requirement.

The notifications issued to Users will be issued in accordance with the Short Term Access to System Flexibility Allocation Methodology produced in pursuant to UNC TPD Section J7.3 by National Grid NTS.

<https://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSExitZones/>

An illustration of the likely timeframes for communication by National Grid NTS to all Users would be as follows:

- Communication 1 - day ahead advance notice D-1 18:00 to 22:00 Risk that short term flexibility requests may not be accommodated
- Communication 2 – On the day notice anytime that short term flexibility requests may not be accommodated.
- Communication 3 – Confirmation that OPNs for LDZ offtakes requesting short term flexibility will not be accommodated (and that 2 hour 5% rule is switched on)

Not all three communications may necessarily be issued (e.g. stage 2 or 3 only may be used) and National Grid NTS may issue and revoke communications as better information becomes available to them.

User Pays
Classification of the modification as User Pays, or not, and the justification for such classification.
This proposal is not a User Pays modification
Identification of Users of the service, the proposed split of the recovery between Gas Transporters and Users for User Pays costs and the justification for such view.
Not applicable
Proposed charge(s) for application of User Pays charges to Shippers.
Not applicable
Proposed charge for inclusion in the Agency Charging Statement (ACS) – to be completed upon receipt of a cost estimate from Xoserve.
Not applicable

## 4 Relevant Objectives

Impact of the modification on the <b>Relevant Objectives:</b>	
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.	Positive
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.	Positive
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

### a) Efficient and economic operation of the pipe-line system.

The contractual solution proposed by this modification would avoid the costs of GDN compliance with the 2 hour 5% rule as currently drafted and National Grid NTS costs of removing the rule and would therefore ensure the most economic use of the pipeline system.

### 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

National Grid NTS will only exercise the requirement for the 2 hour 5% rule to be switched on when it was required pursuant to the relevant methodology. This allows for a more efficient operation of the pipe-line system of one or more gas transporters.

### c) Efficient discharge of the licensee's obligations:

The modification would facilitate efficient discharge of standard special condition A9, in the DN licence which refers to an obligation on the licensee to comply with a gas security standard which meets peak aggregated daily demand including within day gas flow variations.

### 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.

The closer alignment of offtake rate rules between LDZs (and hence their connectees) and NTS connectees, promotes greater competition between shippers and enable the consideration of the use/build/operation of large loads within the LDZs or the NTS system, without such a divergence in rules relating to permissible ramp rate movements.

## 5 Implementation

No implementation costs are anticipated with this modification that would not be classed as business as normal costs, which are currently incurred.

Transporters are using and responding to an existing set of processes (albeit amended). Similarly Shippers who currently consider notifications issued by National Grid NTS will see different notifications, but ones that do not deliver additional costs.

No fixed implementation date is provided at this stage, however implementation is anticipated in time for winter 2013/14

### Impacts

#### Impact on Transporters' Systems and Process

Transporters' System/Process	Potential impact
Operational Processes	<ul style="list-style-type: none"><li>National Grid NTS considers there would be a minor impact on NTS operational processes, which currently expect GDNs to comply with the 2 hour 5% rule. System Operation would need to monitor the system and issue communications should they be needed.</li></ul>

## 6 Legal Text

### Text

The following Text has been prepared by Wales & West Utilities, and no issues were raised by the Workgroup regarding its content.

UNIFORM NETWORK CODE – OFFTAKE ARRANGEMENTS DOCUMENT

SECTION I - NTS OPERATIONAL FLOWS

2.3.3 Where, pursuant to one or more revised Offtake Profile Notice(s) submitted by a DNO in relation to the Offtake(s) serving one LDZ, there is at any time (TRO) a change in the aggregate rate of offtake:

- (a) the time (TOPN) at which such revised Offtake Profile Notice(s) are submitted shall not be less than two hours before time TRO; and

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- (b) the aggregate flow rate change, for any time (TRO) of the Day, pursuant to revised Offtake Profile Notices submitted within any one hour (HOPN) of the clock, shall not exceed 5%.

2.3.4 For the purposes of paragraph 2.3.3(b), in relation to any hour (HOPN), the aggregate flow rate change at any time (TRO) is the magnitude of difference between:

- (a) the aggregate rate of offtake at time TRO pursuant to the Offtake Profile Notices prevailing at the start of hour HOPN; and
- (b) the aggregate rate of offtake at time TRO pursuant to the Offtake Profile Notices prevailing (pursuant to any revisions thereof within hour HOPN) at the end of hour HOPN; expressed as a percentage of the aggregate rate of offtake at time TRO pursuant to the Offtake Profile Notices prevailing at the start of hour HOPN.

## 2.7 Variation of restrictions

2.7.1 The requirements and restrictions in this paragraph 2 in relation to Offtake Profile Notices (and revisions thereof) shall not apply to the extent that (subject to and in accordance with TPD Section J4.5.5, where applicable) National Grid NTS waives or agrees to vary any such requirement or restriction in a particular case.

2.7.2 Where, upon submission of a revised Offtake Profile Notice(s) by a DNO, National Grid NTS determines that it is feasible, consistent (so far as National Grid NTS can judge in the circumstances) with the expectation in paragraph 2.7.3 to make gas available for offtake at the relevant Offtake(s) serving one LDZ at a changed aggregate rate of offtake (specified in such revised Offtake Profile Notice(s)) upon a lesser period of notice than that referred to in paragraph 2.3.3(a) and/or at a greater rate of change than that referred to in paragraph 2.3.3(b), the Offtake Profile Notice(s) will be accepted.

2.7.3 The expectation referred to in paragraph 2.7.2 is that the offtake of gas at the rates of offtake in the revised Offtake Profile Notice(s) on such lesser period of notice and/or greater rate of change should not, of itself and at the time, give rise to an Operational Balancing Requirement (but it is recognised that such change in rates of offtake may contribute to any such requirement at any later time).

## UNIFORM NETWORK CODE – TRANSPORTATION PRINCIPAL DOCUMENT

### SECTION J – EXIT REQUIREMENTS

4.5.4 In relation to a relevant System Exit Point, the Network Exit Provisions will prescribe a period of notice to be given (by way of modified Offtake Profile Notice) to the Transporter of any change ("Offtake Rate Change"), by reference to the prevailing Offtake Profile Notice, in the rate of offtake of gas, which period of notice may depend:

- (a) on whether the Offtake Rate Change is an increase or a decrease in rate of offtake;
- (b) on the amount of the Offtake Rate Change, expressed as an absolute amount or a percentage of a rate determined from the Permitted Offtake Rate or otherwise; and
- (c) on whether any earlier change in the rate of offtake has been notified or occurred within any specified period before the Offtake Rate Change.



4.5.5 The Offtake Profile Notice may be modified, as to the rate of offtake from and after any time, by notice before that time of the period referred to in paragraph 4.5.4 but (without prejudice to paragraph 5.6 or 5.8 where either applies) not otherwise.

4.5.6 Where, upon a request to that effect, the Transporter determines that it is feasible, consistently (so far as the Transporter can judge in the circumstances) with the expectation in paragraph 4.5.7 to make gas available for offtake:

- (a) at the relevant System Exit Point at a changed rate of offtake (specified in such request) upon a lesser period of notice than that referred to in paragraph 4.5.4, the Offtake Profile Notice may be modified in accordance with such request;
- (b) at an NTS/LDZ Offtake an Offtake Profile Notice may be submitted or modified in accordance with such request.

4.5.7 The expectation referred to in paragraph 4.5.6 is that:

- (a) for the purposes of paragraph 4.5.6(a), the change in rate of offtake on such lesser period of notice
- (b) for the purposes of paragraph 4.5.6(b), the offtake of gas at the rates of offtake in the requested Offtake Profile Notice should not, of itself and at the time, give rise to an Operational Balancing Requirement (but it is recognised that such change in rates of offtake may contribute to any such requirement at any later time).

### 7.3 Short-term increase in NTS Exit (Flexibility) Capacity

7.3.1 In relation to an NTS/LDZ Offtake, for the purposes of 4.5.5:

- (a) a request referred to in paragraph 4.5.6(b) is a request for an increase in the amount of NTS Exit (Flexibility) Capacity held by the DN Operator at the NTS/LDZ Offtake for the Day;
- (b) such a request may be made by submitting a proposed Offtake Profile Notice which (in the absence of such an increase in NTS Exit (Flexibility) Capacity) would not comply with the requirement in paragraph 7.2.2;
- (c) National Grid NTS may accept such request by accepting such proposed Offtake Profile Notice, in which case the DN Operator's NTS Exit (Flexibility) Capacity for the purposes only of the application of Section B3.13.4, for the Day shall be increased by the lowest amount which results in the requirement in paragraph 7.2.2 being satisfied in relation to the Offtake Profile Notice.

7.3.2 Where (at any time) more than one User has made a request pursuant to paragraph 4.5.6(a) or (b), National Grid NTS shall consider such requests on the basis of such allocation principles as National Grid NTS shall from time to time establish and publish for the purposes of this paragraph 7.3.2.

7.3.3 The allocation principles established in accordance with TPD Section J7.3.2 shall include provisions for National Grid NTS to issue a notice on the Preceding Day. Such notice shall indicate that requests pursuant to paragraph 4.5.6(a) or

(b) or OAD Section I2.7.2 may not be accommodated by National Grid NTS on the relevant Day specified in the notice.

7.3.4 The allocation principles established in accordance with TPD Section J7.3.2 shall include details of how National Grid NTS shall consider requests made in accordance with OAD Section I2.7.2.

## 7 Recommendation

The Workgroup invites the Panel to:

- AGREE that this modification should be submitted for consultation.

## 8 Additional Supportive Information

### Modification 0407: Appendix to Workgroup Report

In view of the long development period for this Modification, and that the solution proposed by this Workgroup Report is different to that originally envisaged by the Proposer, the Workgroup has produced this appendix in order to summarise the key developments of this Modification.

The original Modification of 25 November 2011 proposed standard treatment with regard to notice periods for offtake rate changes for all Users that offtake gas from the NTS. The removal of the '2 hour 5% rule' ('the Rule') from the OAD was proposed. The Proposer's case for change, in relation to Relevant Objectives, was:

#### a) Efficient and economic operation of the pipe-line system

GDNs are currently required to manage storage to ensure they comply with the LDZ 2 hour 5% rule. This is not an efficient or economic operation of the GDN pipeline system.

#### b) Coordinated, efficient and economic operation of

(i) The combined pipe-line system, and/or (ii) The pipeline system of one or more relevant gas transporters

The existing rules may require GDNs to invest in storage to accommodate the 2 hour

5% rule. This would not be an efficient investment and runs contrary to the RIIO

principles of cross Transporter investment to ensure the optimum solution and minimum cost for consumers.

#### c) Securing of effective competition

A Shipper/VLDMC should elect to connect to the pipeline system which best serves its commercial and operational requirements. It should not be constrained by a two tier set of rules which provide a 'higher operational bar' for those connected to the LDZ rather than the NTS.'

It was subsequently established that, historically, GDNs had frequently not been complying with the Rule without censure from National Grid NTS; therefore GDNs considered that the Rule was obsolete and could be removed. National Grid NTS considered that the Rule was necessary as a planning input and to share the impact of

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a GDN demand change on GDN and NTS networks under NTS design (peak) conditions.

National Grid NTS contested the Proposer's view that the current arrangements in the UNC are discriminatory because GDNs do not compete directly with DC NTS customers; customers are free to choose which 'network' they connect to and should take any difference into account.

GDNs argued that the nature of embedded VLDMCs (such as power stations) operations, will typically dictate that they need to change their rates of offtake with less than 2 hours' notice and by more than 5%; this affects a GDN's ability to comply with its OAD obligations.

The Draft Workgroup Report was produced in June 2012 and summarised a number of issues that had arisen during the development of the Modification on which National Grid NTS and the GDNs took opposite views.

In view of the differing perspectives of National Grid NTS and the GDNs, it was agreed that further detailed analysis was necessary to assess the impact on National Grid NTS of removal of the Rule, and on the GDNs of always having to comply with it. This work took place during the remainder of 2012, and the Modification was held in abeyance pending its conclusion.

In December 2012 the GDNs presented their assessment of the cost of always being able to comply with the Rule whilst allowing existing sites to participate in, for example, the Electricity Balancing market. This would be of the order of £335m. National Grid NTS reported the results of analysis it had commissioned from GL Noble Denton, analysing the possible effects of the removal of the Rule on NTS linepack depletion. This ranged from 6mcm to 14-15mcm.

In January 2013 National Grid NTS estimated NTS network pipeline build investment costs of between £516m (necessary to address 6mcm of linepack depletion) and £1.4bn (addressing 15mcm of linepack depletion) associated with the removal of the Rule.

National Grid NTS worked with WWU to develop alternative solutions, designed to facilitate compliance with the Rule when necessary, which were considered further by the Workgroup. These alternative solutions were:

- 1) Use of Margins Notice and/or Gas Deficit Warning
- 2) Apply the Rule on 'High' or 'low' demand days at national or local level (as agreed in advance by industry participants)
- 3) Manage the Rule on the same basis as the procedures applicable under UNC TPD J4.5.6 and 4.5.7.

The Workgroup chose to proceed with 3), as an alternative to the original proposal of removing the Rule. The Workgroup viewed this as a reasonable compromise addressing the concerns of both the GDNs and National Grid NTS.