

The Joint Office, Relevant Gas
Transporters and other interested
parties

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Dear Colleague

Uniform Network Code modification proposal 072 “Gas Allocations at LNG Storage Facilities in the Event of a Network Gas Supply Emergency”

Ofgem¹ has considered the issues raised in the modification report in respect of Uniform Network Code (UNC) modification proposal 072 “Gas Allocations at LNG Storage Facilities in the Event of a Network Gas Supply Emergency” and having regard to the principal objective and statutory duties of the Authority², has decided to direct the relevant gas transporters to implement modification proposal 072.

Ofgem considers that modification proposal 072 (the modification proposal) would better facilitate the achievement of the relevant objectives of the UNC, as set out under Standard Special Condition A11³ of the relevant gas transporters’ licences as compared with the existing provisions of the UNC.

In this letter, Ofgem explains the background to the modification proposal and gives reasons for its decision.

Background to the proposal

In this section we set out a brief background of the recent developments in the gas industry which led to National Grid LNG Storage (NG LNG) raising the modification proposal.

Safety Monitors

Safety Monitors were introduced after the removal of the top up arrangements, following the approval of modification proposal 710 “Removal of Top-up arrangements” in October 2004. The

¹ Ofgem is the Office of the Gas and Electricity Markets Authority. The terms ‘Ofgem’ and the ‘Authority’ are used interchangeably in this letter.

² Set out in Section 4AA of the Gas Act 1986, as amended.

³ This Licence Condition can be viewed at: http://62.173.69.60/document_fetch.php?documentid=6547

background to the removal of the top arrangements can be found in Ofgem's recently published decision letter on modification proposal 035 "Revisions to Section Q to Facilitate the Revised National Emergency Coordinator (NEC) Safety Case"^{4,5}.

There is now an obligation on National Grid National Transmission System (NG NTS) to publish two monitor levels, aggregated by storage facility type i.e. short, medium or long duration storage, by 1 October in each gas year. The "Firm Gas Monitor" covers the total firm demand and is published for information only. The "Safety Monitor" covers those sectors of demand defined in NG NTS's Safety Case (including priority firm daily metered customers and non-daily metered customers). The purpose of the Safety Monitor is to ensure safety of the system and to protect those customers that cannot be protected by physical isolation and thereby protect public safety in the event of an emergency following a shortfall of gas supplies relative to demand.

Following the publication of the monitor levels, NG NTS keeps under review the assumptions used to calculate the monitors. Since the approval of modification proposal 050 "Storage Monitor Adjustment"⁶, NG NTS has the ability to:

- ◆ reallocate the Safety Monitor and/or the Firm Gas Monitor between different storage facilities in order to enhance the security provided by current storage stocks;
- ◆ reduce a Safety Monitor and/or a Firm Gas Monitor to reflect changes in longer-term demand forecasts;
- ◆ adjust a Safety Monitor and/or Firm Gas Monitor to reflect the occurrence of severe weather; and
- ◆ increase or reduce a Safety Monitor and/or Firm Gas Monitor to reflect any material changes in its estimates of expected gas supplies or offtakes from the system.

NG NTS publishes periodic information in relation to each storage facility type, highlighting the risk of a breach of that facility's associated Safety Monitor, within operational timescales. If NG NTS is aware that the Safety Monitor levels have been, or are forecast to be, breached, then NG NTS will liaise with the NEC prior to the NEC declaring a Network Gas Supply Emergency (NGSE).

Changes to the NEC Safety Case

Following the introduction of the Safety Monitor arrangements, the Health and Safety Executive (HSE) stated that it wanted these arrangements to be outlined and demonstrated in the NEC Safety Case. NG NTS considered that in a Safety Monitor Breach emergency, it would be inappropriate to allow gas to continue to flow from the affected storage facility/facilities. Therefore, NG NTS

⁴ The decision letter for modification proposal 035 can be found on the Gas Transporters Information Service (formerly known as Nemisys) <https://gtis.gasgovernance.com>

⁵ Although National Grid acts in the capacity of National Emergency Coordinator, as defined within the Gas Safety (Management) Regulations 1996 this role involves different duties, requiring a separate Safety Case to that held by National Grid acting as the National Transmission System operator.

⁶ The decision letter for modification proposal 050 can be found on the Gas Transporters Information Service (formerly known as Nemisys) <https://gtis.gasgovernance.com>

submitted a revised NEC Safety Case to the HSE. This included a new type of emergency - a Gas Safety (Management) Regulations (GS(M)R) Monitor Breach Emergency - during Stage 1 of which the NEC can instruct shippers and storage operators to amend storage flows. The revised NEC Safety Case was accepted by the HSE in March 2005.

National Grid's Winter Outlook Report (WOR) 2005

As part of its May 2005 Preliminary WOR⁷, NG NTS published indicative Safety Monitor levels under two scenarios. In October 2005, NG NTS published amended Safety Monitor levels as part of its Final WOR⁸. These amended levels took account of responses to the consultation and an assessment of the effects on UK gas supplies of a potential increase in demand for Liquefied Natural Gas (LNG) in the United States because of damage to US gas production facilities by Hurricanes Katrina and Rita.

In December 2005, NG NTS revised its WOR supply assumptions because of lower than expected flows through the Interconnector during a period of high demand for that time of year and very high GB gas prices. As part of its ongoing commitment to review the monitor levels throughout the winter, NG NTS subsequently concluded that it was necessary to reallocate the Safety Monitor levels across the three types of storage facilities. No changes were made to the aggregate safety monitor levels. The table below shows the Safety Monitor levels for 2005/06, including the revised monitor levels.

Storage type	Preliminary WOR 2005/06		Final WOR 2005/06	Dec Safety Requirement	Revised Monitor
	Scenario 1	Scenario 2	Base case	Base case	
Long duration storage (Rough)	6.2%	17.2%	22.9%	20.5%	
Medium duration storage (MRS)	5.0%	12.1%	12.7%	16.4%	
Short duration storage (LNG)	18.2%	54.4%	26.4%	40.2%	

The modification proposal

Modification proposal 072 was raised by NG LNG as an urgent proposal on 13 December 2005. Ofgem granted Urgent status to modification proposal 072 on 14 December 2005.

⁷ 'A Consultation on Winter 2005/06', NG, May 2005 available at: http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/11584_14405b.pdf?wtfrom=/ofgem/whats-new/archive.jsp

⁸ 'Winter Outlook Report 2005/06', NG, October 2005 available at: http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/12493_214_05.pdf?wtfrom=/ofgem/whats-new/archive.jsp

The modification proposal seeks to amend Section Z of the UNC so that in the event the NEC requests NG LNG Storage to cease or reduce flows from its storage facilities, in the event of an actual or potential GS(M)R Safety Monitor breach, Storage Users are allocated gas according to the amount of gas they have nominated for delivery to the NTS at the point in the Gas Day when the curtailment becomes effective, rather than in accordance with their gas-in-store for that Day. The amount of gas allocated for delivery would be calculated as follows:

$$\sum \text{implied withdrawal rate} * \text{relevant curtailment period}$$

Where “Implied withdrawal rate” is defined in UNC Section Z 6.2.5 (b) and “Relevant curtailment period” is the period in hours from the time the relevant storage withdrawal nomination become effective until either (i) the time when a further relevant storage withdrawal nomination become effective or (ii) an instruction by the NEC to cease flowing becomes effective.

- ◆ In the event that the NEC direct LNG Storage Facilities to reduce rather than cease flows, flows after the time that curtailment becomes effective would be allocated pro-rata to nominations effective at that time.
- ◆ Following a revision of the proposed legal text, the amount of gas allocated to a User for delivery would also include any quantity of gas withdrawn by that User from the LNG facility in question for loading as LNG onto road tankers on the Day in question.

Modification proposal 072 intends to ensure that Users who did not nominate gas for delivery are not allocated gas, and those Users with nominations for delivery are not allocated less gas than they otherwise would have anticipated, on the day that the NEC initiates storage withdrawal curtailment.

Respondents’ views

This section is intended to summarise the principal themes of the respondents' views and is not intended to provide a comprehensive overview of the responses received.⁹

Ten responses (including the Proposer) were received in relation to the modification proposal. Of these responses, nine supported the modification proposal, one respondent offered qualified support for the proposal and no respondents were opposed to the modification proposal.

Respondents supporting the proposal

In line with the view of the Proposer, respondents who offered support for the modification proposal were of the view that the purpose of the proposed changes was to amend the method of allocation of gas at LNG storage facilities in the event of the NEC directing storage withdrawal curtailment, to reflect the current gas allocation methodology, which has resulted from the recent string of storage regime amendments following the removal of Top Up. One respondent was of the

⁹ Respondents’ views can be found on the Gas Transporters information service at: <https://gtis.gasgovernance.com>

view that implementation of the modification proposal would remove the perverse incentives that have existed in Section Z of the UNC since the removal of the top up regime.

The majority of respondents considered that implementation of the modification proposal would help to eliminate the risk of User imbalance caused by the allocation of gas based on storage stocks as opposed to a User's nominations. The Proposer considered that allocating gas based on User nominations may improve the economic and efficient operation of the pipeline system by reducing additional costs to the community caused by increased imbalance charges and Entry Capacity Overrun Charges.

Further, another respondent in favour of the modification proposal considered that it would provide a potential benefit to security of the system by ensuring that gas held in the LNG storage facilities for Operating Margins would not be automatically allocated as having been withdrawn from storage in the event of NEC curtailment.

One respondent considered that the modification proposal would ensure that Users were allocated gas in a way that is not unduly discriminatory. This respondent considered that this in turn would ensure effective competition between Users.

The one respondent who offered qualified support for the modification proposal noted that unless it was possible to exclude the Scottish Independent Undertakings (SIUs) from the allocations methodology because of their reliance on LNG withdrawals from Glenmavis, they would be unable to support the modification proposal. This respondent considered that the initial legal drafting did not make it clear that SIUs would continue to receive their full allocation of LNG and would not be curtailed in the same way as other storage users.

The Proposer was of the view that while the modification proposal may not perfectly allocate gas between users in unusual circumstances, such as SIUs, it was nonetheless an improvement over the current arrangements. The Proposer considered that for this winter, such issues could be resolved via discussions with the NEC, subject to further review after this winter.

Panel recommendation

At the Modification Panel meeting held on 04 December 2005, of the nine Voting Members present, capable of casting nine votes, five votes were cast in favour of implementing the modification proposal. Therefore, the Panel recommended the implementation of modification proposal 072.

Ofgem's view

Having considered the views of respondents and the Panel, Ofgem considers that, on balance, the modification proposal would better facilitate the achievement of the relevant code objectives compared to the existing provisions of the UNC.

The reasons for Ofgem's decisions in relation to the modification proposal are outlined in the sections below, based on its assessment of the modification proposal against the relevant code

objectives and the Authority's wider statutory duties. Ofgem considers that it is appropriate to assess this modification proposal against relevant objective (a).

Standard Special Condition A 11 (a) – the efficient and economic operation of the pipe-line system to which this licence relates

Ofgem recognises that the March 2005 revisions to NG NTS's Safety Case and the introduction of the concept of a GS(M)R Monitor Breach Emergency enable the NEC to reduce or curtail storage flows during Stage 1 of such an emergency. Ofgem also recognises that Section Z of the UNC did not intend for a scenario where the NEC has the ability to reduce or curtail storage withdrawals from LNG storage facilities in the event of a potential or actual GS(M)R Monitor Breach Emergency.

Currently, where the NEC seeks to amend storage flows, the arrangements require LNG Storage Operators to apportion the aggregate level of gas flowed from an LNG Storage Facility on that day to all Users of that facility based on how much gas each User has in store. Ofgem understands that in some cases this may result in some Users who have not nominated gas for withdrawal being allocated gas for delivery, and some Users who have nominated gas for withdrawal being allocated less gas than they require for delivery.

Imbalance Exposure

Ofgem shares the view of the Proposer that allocating gas based on User nominations will ensure that Users do not face unanticipated imbalance positions and subsequent exposure to cash out prices above those that would be expected to occur from storage withdrawal curtailment. As such, Ofgem considers that this modification proposal would ensure that Users who did not nominate gas for delivery are not left in an unanticipated long position due to being allocated a quantity of gas which they do not require. Similarly, Users who did nominate gas for delivery would not be left in an unexpected short position as a result of being allocated less gas than they otherwise would have anticipated. Ofgem considers that this modification proposal could potentially reduce the extent to which Users positions are unexpectedly out of balance which may therefore reduce Users imbalance exposures in these scenarios. The extent to which Users imbalance exposures are reduced will therefore have a direct impact, i.e. a likely reduction, on the balancing actions that NG NTS would have to take in the event of an emergency. Further, Ofgem also considers that by reducing the potential for greater imbalance across Users, this modification proposal would reduce the costs that would be smeared across all industry participants via balancing neutrality, helping to promote the economic and efficient operation of NG NTS's system.

Storage Curtailment Quantity

Following the recently implemented storage curtailment modification proposals¹⁰, Ofgem considers that there is now an effective compensation mechanism for those Users that have their gas curtailed

¹⁰ UNC modification proposal 035 "Revisions to Section Q to Facilitate the Revised NEC Safety Case", UNC modification proposal 050 "Storage Monitor Adjustment", UNC modification proposal 052 "Storage Withdrawal Curtailment Trade Arrangements in an Emergency", UNC modification proposal 071A "User Compensation for NEC Storage Curtailment (Alternative)"

by the NEC in a potential or actual GS(M)R monitor breach emergency. Ofgem is of the view that it is necessary to ensure that appropriate arrangements are in place so that storage curtailment volumes can be calculated correctly. As such, while the arrangements currently in place provide an effective means for compensating affected Users, to the extent that parties consider that other arrangements may be more appropriate at compensating those Users that have their gas curtailed, Ofgem notes that it is open for those parties to raise further modification proposals to address any remaining or perceived deficiencies in the current arrangements.

Currently, on the first day of a NGSE, a User's best estimate of an individual curtailment quantity is considered to be the prevailing input nomination at the time the storage withdrawal curtailment is called, less the User's best estimate of the allocated input to the system at that Storage Connection Point on the Day. This curtailment quantity estimation is submitted by Users to NG NTS who then calculate each relevant Users' storage curtailment compensation payment¹¹. The modification proposal will assist in ensuring that by basing the compensation mechanism on User's nominations of their best estimates of allocated input to the system at LNG storage facilities, the resulting compensation payments will be as accurate and appropriate as possible. Ofgem notes that the current arrangements in Section Z of the code could lead to perverse incentives on Users to prematurely withdraw gas from storage in the lead up to an emergency. Ofgem further considers that the modification proposal should reduce the potential for such perverse incentives, and in so doing reduce the potential to tip the system into an emergency situation, by removing the process of making inappropriate compensation payments in the event of NEC Storage Curtailment.

Gas for Operating Margins (OMs)

Ofgem understands that in the instance that an OM nomination is not placed on the day the NEC directs storage curtailment, under the current arrangements the OM manager would be allocated gas at the NBP in the same manner that all Storage Users of an LNG facility would be apportioned gas - based on levels of gas in storage. This would effectively reduce the amount of gas in storage available to NG NTS to manage future supply losses, demand forecast changes, plant trips and orderly run down in future. Therefore, in line with the view of one respondent, Ofgem considers that allocating gas on the basis of User nominations at LNG storage facilities would provide a potential benefit to system security by ensuring that gas held for Operating Margins would not be automatically allocated as having been withdrawn by NG NTS in the event of NEC curtailment.

Scottish Independent Undertakings (SIUs)

Ofgem recognises the concerns raised by one respondent in respect of the treatment of SIUs during NEC storage withdrawal curtailment and welcomes the revisions made to the legal text in order to provide clarity on this issue. Ofgem understands that the amount of gas allocated to a User for delivery would now also include any quantity of gas withdrawn by that User from the LNG facility to supply the SIUs during a potential or actual storage monitor breach. Ofgem considers that these amendments address the respondent's concerns by clarifying that SIUs would continue to receive their full allocation of LNG in the event the NEC curtailed storage withdrawals.

¹¹ As outlined in Ofgem's decision letters for UNC modification proposal 052 "Storage Withdrawal Curtailment Trade Arrangements in an Emergency"

Wider Statutory Duties

As set out above, Ofgem considers that allocating gas based on a User's nominations rather than on a User's aggregate level of gas in store will reduce the level of costs faced by Users and ultimately consumers, by reducing the imbalance charges in the event of NEC storage curtailment at LNG facilities.

Ofgem also considers that the modification proposal will remove any perverse incentives within Section Z of the UNC that may encourage the premature withdrawal of gas from LNG storage facilities due to inappropriate and discriminatory allocation arrangements being in place. This modification proposal would therefore assist security of supply of the system by reducing the likelihood of premature withdrawal of LNG storage stocks.

Further Considerations

Ofgem recognises that the arrangements for the allocation of gas during NEC curtailment at several non LNG storage facilities have not been reviewed in light of the recent changes to gas storage arrangements following the removal of the Top Up regime. With regard to the direction to implement modification proposal 072, Ofgem would encourage all Storage Operators to review their current allocation arrangements with respect of a GS(M)R Safety Monitor with consideration of the issues raised by both Ofgem and respondents to this modification proposal, as set out in this letter.

Ofgem's decision

Therefore, for the reasons outlined above, Ofgem considers that, on balance, modification proposal 072 would better facilitate the achievement of the relevant code objectives and has decided to accept modification proposal 072.

If you have any further queries in relation to the issues raised in this letter, please feel free to contact Claire Rozyn on 020 7901 7216.

Yours sincerely



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