

UNC Modification	At what stage is this document in the process?
<p><b>UNC 080X:</b></p> <p><i>(Code Administrator to issue reference)</i></p> <p><b>Change to Curtailment Trade Price Compensation in Section Q</b></p>	<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid green; background-color: #28a745; color: white; padding: 5px; display: flex; align-items: center; justify-content: center;"> <span style="font-weight: bold; font-size: 1.2em; margin-right: 5px;">01</span> Modification         </div> <div style="border: 1px solid #17a2b8; padding: 5px; display: flex; align-items: center; justify-content: center;"> <span style="font-weight: bold; font-size: 1.2em; margin-right: 5px;">02</span> Workgroup Report         </div> <div style="border: 1px solid #9932cc; padding: 5px; display: flex; align-items: center; justify-content: center;"> <span style="font-weight: bold; font-size: 1.2em; margin-right: 5px;">03</span> Draft Modification Report         </div> <div style="border: 1px solid #fd7e14; padding: 5px; display: flex; align-items: center; justify-content: center;"> <span style="font-weight: bold; font-size: 1.2em; margin-right: 5px;">04</span> Final Modification Report         </div> </div>
<p><b>Purpose of Modification:</b></p> <p>Given changes to the GB energy system this Modification is to provide adequate incentive and compensation to ensure gas is purchased in advance.</p>	
<p><b>Next Steps:</b></p> <p>The Proposer recommends that this Modification should be: considered a material change and not subject to Self-Governance</p> <p>This Modification will be presented by the Proposer to the Panel on <b>21 April 2022</b>. The Panel will consider the Proposer’s recommendation and determine the appropriate route.</p>	
<p><b>Impacted Parties:</b></p> <p><i>Suppliers, Shippers, Consumers.</i></p> <p>Medium impact as probability low but price impact could be material.</p>	
<p><b>Impacted Codes:</b></p> <p>UNC TPD Section Q Section 6.</p>	



## 1 Summary

### What

The current curtailment compensation payment in paragraph 6.1.1 (c) of TPD section Q of the UNC pays the average of the 30 days SAP preceding the Day, this is unlikely to be reflective of the price of gas on a day if Firm Load Shedding is instructed. Under the current rules the load shedding hierarchy has a largest off first approach, with few exceptions, therefore Gas generating plant (CCGTs) are likely to be the first called off. In addition, the resulting loss on the electricity wholesale market is not compensated for during Firm Load Shedding in Stage 2+. These act as a dis-incentive and barrier to hedge electricity generation and purchase gas in advance.

### Why

Gas fired generating plant plays an increasing role in meeting electricity demand as coal plant is closed. Gas plant are running less often as renewable generation capacity increases but also have a key role in managing intermittency of these generation sources. Overall, gas will increasingly only be used when wind availability is limited. This wind availability is not known with certainty until between a week to 1 day in advance of delivery. Without a change to the gas curtailment entitlement rules and curtailed price gas compensation, the commercial risk of purchasing gas in advance for electricity generation and trading the electricity forward may be viewed as too great. This is because a curtailed generator is exposed to electricity cashout, up to £ 6000 /MWh in a tight market and repayment of Capacity Market funding, whilst the revenue from forward baseload spark spread might only be valued at £10 /MWh. This means that less gas might be purchased in advance which may increase strain on the short-term market with the potential for system gas demand to be greater than supply.

### How

This Modification proposes to change the Emergency Curtailment Trade Price 6.1.1 (c) from the arithmetic mean of the SAP of the 30 Days preceding the Day to the SAP of the Day preceding the Day.

## 2 Governance

### Justification for Authority Direction

The impact of this Modification is considered to have a low probability, but the price impact could be material and hence should not be subject to Self-Governance. The guidelines directly impacted are: *(dd) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies;*

### Requested Next Steps

This Modification should:

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

## 3 Why Change?

### *1. What are the driver and benefits and which parties are impacted;.*

The driver is to reduce a dis-incentive and barrier to hedge electricity generation and purchase gas in advance. The current risk reward arising from paragraph 6 Section Q curtailment compensation acts as a dis-incentive to hedge electricity generation and purchase gas in advance.

A lack of certainty of success exists in the Post Emergency Claims Process for voluntary load shedding prior to stage 2 Firm Load Shedding. (Higher bids are withheld and a lengthy claims process through arbitration might occur.) This background of lack of certainty over the claims process and given that stress events may occur out of normal working times with shift workers working remotely makes the probability of voluntary load shedding when power prices have already been in excess of £4000 MWh, without a gas supply event, low. The week to day ahead intermittency of gas generation in the electricity market and the commercial structure of the gas market do not incentivise behaviour of purchasing gas in advance but rather encourage waiting until day ahead. This risks short term market stress on the gas system.

Changing the compensation to the SAP of the Day preceding curtailment will lower the market price risk and potentially remove a barrier to purchasing gas in advance and allow hedging of electricity positions. This will increase the potential for system gas supply match demand.

Compared with the counterfactual, implementing this Modification will benefit wider society because gas supply will be better matched to demand. Shippers may have improved compensation that better reflects the market price under stressed conditions in the time immediately preceding an emergency, for losses incurred. With this knowledge they may be encouraged to purchase gas in advance as part of a hedging strategy and therefore remove short term market stress. The increased compensation may arise from an increase in differential between the 30 day average of SAP and SAP of the preceding day. Affected Shippers may then pass these costs to customers, this is fair because customers will have had their supply protected and it seems reasonable to pay for this insurance service. Whereas, currently the parties being load shed risk bankruptcy if they have hedged forward and are Firm Load Shed for the good of society. The current arrangements are not reasonable and indeed could be asserted as discriminatory as it imposes unacceptable commercial risk on Shippers.

### *2. Why this is a Code matter (in the case of new additions); and*

The proposed solution is to change the current curtailment compensation in TPD section Q paragraph 6.1.1 (c).

### *3. What the effects are should the change not be made*

Without changes to the curtailment rules, the physical need and commercial risk of purchasing gas in advance for electricity generation and hedging may be viewed as too great. This means that less gas is purchased in advance which may increase the potential for system gas demand to be greater than supply, which increases stress on the gas system.

## 4 Code Specific Matters

### Reference Documents

UNC TPD Section Q paragraph 6

UNC TPD Section V paragraph 12

DR ECQ Methodology

[Microsoft Word - Emergency Curtailment Quantity v2.0.doc \(gasgovernance.co.uk\)](#)

User guidance on PEC

[Microsoft Word - Post Emergency Claims Economic Assessment Guidelines Version 2 Final .docx \(nationalgrid.com\)](#)

Relevant Information on NGG website impacted by proposed changes

<https://www.nationalgrid.com/gas-transmission/safety-and-emergencies/network-gas-supply-emergencies-ngse>

## 5 Solution

In paragraph 6.1.1 (c), change the calculation of the Emergency Curtailment Trade Price from the arithmetic mean of the System Average Prices for each of the 30 Days preceding the Day to the System Average Prices of the Day preceding the Day.

## 6 Impacts & Other Considerations

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

No

### Consumer Impacts

The Emergency Curtailment Trade Price may increase, this may lead to a cost increase for Shippers and may be passed onto Customers.

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

This Modification seeks to remove the risk of gas supply being less than demand and any resulting load shedding. If this were to occur, it is possible that electricity produced by gas generation, the largest Customer, is interrupted and other end customers experience loss of electricity and other associated services. The large customer no longer generating electricity will experience electricity cashout costs of £60 Million for a 10 hour interruption for 1 GW of capacity based on VOLL of £6000 /MWh and if in a tight electricity capacity market repayment of Capacity Market Payments, anywhere between £0.70 and £70 kW ( £0.7 Million to £70 Million depending on the number of interruptions). The current level of commercial risk faced by parties that may be load shed does not seem reasonable and indeed could be asserted as discriminatory as it imposes unacceptable commercial risk on Shippers.

If this Modification is implemented the probability of load shedding should be made more unlikely so end customers avoid loss of electricity and associated services. In the unlikely event of firm load shedding any increase in cost between the 30 day average SAP and the SAP price will be incurred by Shippers on the basis of throughput and this may feed into end Customer bills or it may be absorbed by Shippers.

Impact of the change on Consumer Benefit Areas:	
Area	Identified impact
<p><b>Improved safety and reliability</b></p> <p>This change will mean that the energy system can operate more safely and reliably now and in the future in a way that benefits end consumers.</p>	Positive
<p><b>Lower bills than would otherwise be the case</b></p> <p>In the unlikely event of firm load shedding of the large gas fired electricity generating customers; they will be slightly better off than before this Modification was implemented. The saving for one party will be transferred to other Shippers and may be absorbed or passed onto end customers. This can be thought of as a cost of insurance for keeping a secure energy supply.</p>	Positive
<p><b>Reduced environmental damage</b></p> <p>Not applicable</p>	None
<p><b>Improved quality of service</b></p> <p>Improved gas purchasing and hedging and hence continuation of a secure of energy supply</p>	Positive
<p><b>Benefits for society as a whole</b></p> <p>Improved gas purchasing and hedging and hence security of energy supply</p>	Positive

**Cross-Code Impacts.**

No other Codes are directly impacted.

**EU Code Impacts**

None.

**Central Systems Impacts**

None

**7 Relevant Objectives**

Impact of the Modification on the Transporters' Relevant Objectives:	
Relevant Objective	Identified impact
<p>a) <b>Efficient and economic operation of the pipeline system.</b></p>	<p>Positive</p> <p>If firm load shedding can be avoided and security of energy supply maintained by creating an incentive to hedge electricity generation and purchase gas in advance</p>

	<p>this will increase efficient and economic operation of the pipeline system.</p> <p>Only limited Coal fired generation is available in GB and electricity produced by gas will increasingly only be used when wind availability is limited. This wind availability is not known with certainty until between a week to 1 day in advance of delivery. Without a change to the gas curtailment entitlement rules and curtailed price gas compensation, the commercial risk of purchasing gas in advance for electricity generation and trading the electricity forward may be viewed as too great. This is because a curtailed generator is exposed to electricity cashout, up to £ 6000 /MWh in a tight market and repayment of Capacity Market funding, whilst the revenue from forward baseload spark spread ( difference between electricity – gas- carbon) might only be valued at £10 /MWh. This means that less gas might be purchased in advance which may increase the potential for system stress.</p> <p>Changing the compensation to the SAP of the day preceding curtailment, rather than 30 day average before, will lower the gas market price risk and potentially remove a barrier to purchasing gas in advance. This will increase the potential for system gas supply to match demand.</p>
<p>b) Coordinated, efficient and economic operation of</p> <ul style="list-style-type: none"> <li>(i) the combined pipe-line system, and/ or</li> <li>(ii) the pipe-line system of one or more other relevant gas transporters.</li> </ul>	<p>None</p>
<p>c) Efficient discharge of the licensee's obligations.</p>	<p>None</p>
<p>d) Securing of effective competition:</p> <ul style="list-style-type: none"> <li>(i) between relevant shippers;</li> <li>(ii) between relevant suppliers; and/or</li> <li>(iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.</li> </ul>	<p>None</p>
<p>e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security</p>	<p>None</p>

standards... are satisfied as respects the availability of gas to their domestic customers.	
f) Promotion of efficiency in the implementation and administration of the Code.	<p><b>Positive</b></p> <p>If firm load shedding can be avoided and security of energy supply maintained by creating an incentive to hedge electricity generation and purchase gas in advance this will increase efficient implementation of the Code.</p> <p>Only limited Coal fired generation is available in GB and electricity produced by gas will increasingly only be used when wind availability is limited. This wind availability is not known with certainty until between a week to 1 day in advance of delivery. Without a change to the gas curtailment entitlement rules and curtailed price gas compensation, the commercial risk of purchasing gas in advance for electricity generation and trading the electricity forward may be viewed as too great. This is because a curtailed generator is exposed to electricity cashout, up to £ 6000 /MWh in a tight market and repayment of Capacity Market funding, whilst the revenue from forward baseload spark spread ( difference between electricity – gas- carbon) might only be valued at £10 /MWh. This means that less gas might be purchased in advance which may increase the potential for system stress.</p> <p>Changing the compensation to the SAP of the day preceding curtailment, rather than 30 day average before, will lower the gas market price risk and potentially remove a barrier to purchasing gas in advance. This will increase the potential for system gas supply to match demand.</p>

## 8 Implementation

Seek to have the Modification implemented as soon as possible.

## 9 Legal Text

### Text Commentary

Insert text here.

### Text

Insert text here.



## 10 Recommendations

### Proposer's Recommendation to Panel

Panel is asked to:

- Agree that Authority Direction should apply.
- Refer this proposal to a Workgroup for assessment.