

UNC Final Modification Report	At what stage is this document in the process?
<h1>UNC 0806:</h1> <h2>Change to Curtailment Trade Price Compensation in Section Q</h2>	<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; display: flex; align-items: center; gap: 10px;"> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">01</span> Modification         </div> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; display: flex; align-items: center; gap: 10px;"> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">02</span> Workgroup Report         </div> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; display: flex; align-items: center; gap: 10px;"> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px;">03</span> Draft Modification Report         </div> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; display: flex; align-items: center; gap: 10px;"> <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 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 help ensure gas is purchased in advance.</p>	
<p><b>Next Steps:</b></p> <p>Panel consideration is due on <b>15 September 2022</b></p>	
<p><b>Impacted Parties:</b></p> <p><i>Suppliers, Shippers, Consumers.</i></p> <p>Medium impact as probability of impact is low but price impact could be material.</p>	
<p><b>Impacted Codes:</b></p> <p>UNC TPD Section Q Section 6 Emergency Curtailment and Demand Side Response (DSR) Payments.</p>	

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<b>Modification timetable:</b>		
Pre-Modification Discussed	07 April 2022	 Any questions?
Date Modification Raised	28 March 2022	Contact: Joint Office of Gas Transporters
New Modification to be considered by Panel	21 April 2022	 <a href="mailto:enquiries@gasgovernance.co.uk">enquiries@gasgovernance.co.uk</a>
First Workgroup Meeting	05 May 2022	 0121 288 2107
Workgroup Report to be presented to Panel	21 July 2022	Proposer: Jeff Chandler SSE
Draft Modification Report issued for consultation	22 July 2022	 <a href="mailto:Jeff.Chandler@sse.com">Jeff.Chandler@sse.com</a>
Consultation Close-out for representations	19 August 2022	Transporter: Darren Lond, National Grid
Final Modification Report available for Panel	22 August 2022	 <a href="mailto:Darren.lond@nationalgrid.com">Darren.lond@nationalgrid.com</a>
Modification Panel decision	15 September 2022	 07769 724 892
		Systems Provider: Xoserve
		 <a href="mailto:UKLink@xoserve.com">UKLink@xoserve.com</a>

## 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 System Average Prices (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 fired 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 (Gas 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 fired generating plant 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 defined in UNC TPD Section Q 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 relating to consideration of Authority Direction which are 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
- proceed to consultation.

## 3 Why Change?

### 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 UNC TPD Section Q paragraph 6 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 to match demand.

If this Modification is not implemented, the current arrangements mean that 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 they impose unacceptable commercial risk on Shippers.

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.

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.

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

## 4 Code Specific Matters

### Reference Documents

UNC TPD Section Q paragraph 6 <https://www.gasgovernance.co.uk/TPD>

UNC TPD Section V paragraph 12 <https://www.gasgovernance.co.uk/TPD>

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 (TPD Section Q) 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 Price 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

#### Workgroup response

A Workgroup participant noted that the existing arrangements were put in place as an outcome of an SCR<sup>1</sup> (2014). Another participant noted that the previous SCR was some time ago and that Ofgem has previously indicated that they reserve the right to revisit their decisions if circumstances change. They are not bound to follow the same course for subsequent modifications.

### Consumer Impacts

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

#### Workgroup response

A Workgroup Participant noted that it would be a 'short' shipper that would be exposed to the higher costs and this could increase the incentive to not be out of balance. This is consistent with the 'polluter pays' principles.

### 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 Value Of Lost Load (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

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<sup>1</sup> Further information relating to the Gas Security of Supply Significant Code Review is available at:

<https://www.gasgovernance.co.uk/SCR> and

[https://www.ofgem.gov.uk/sites/default/files/docs/2014/02/140212\\_gasscr\\_fpd\\_0.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2014/02/140212_gasscr_fpd_0.pdf)

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.

**Workgroup response**

A Workgroup Participant agreed that if this Modification is implemented and more forward gas is procured then this could reduce the risk of loss of gas supply and loss of electricity supply.

A Workgroup Participant agreed with the proposer that the current arrangements leave generators at an unacceptable level of risk. The parties most likely to be curtailed are generators and the 30 Day SAP price has been set to encourage market participants to put DSR arrangements in place, However, now there appears to be no I&C DSR agreements.

A Workgroup Participant countered that increasing the value of the compensation could have a consequence of reducing the incentives to come to DSR agreement. Another Workgroup Participant agreed that this Modification may reduce the incentive to participate in voluntary Demand Side Response arrangements.

<b>Impact of the change on Consumer Benefit Areas:</b>	
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

**Workgroup response**

A Workgroup Participant pointed out that not all consumers will necessarily see lower bills; as the funding arrangements for balancing neutrality will flow through to (short) Shippers then if the downstream arrangements allow for a flow through to consumers, they may see higher costs.

A Workgroup Participant pointed out that the 30-day SAP price is not reflective of the market price at the time of curtailment.

A Workgroup Participant noted that this proposal has been raised due to the specific interaction between the gas and electricity market that arises with gas-fired generators. Another Workgroup Participant noted that electricity is valued at a higher price than gas.

## Cross-Code Impacts.

No other Codes are directly impacted.

An assurance was obtained from the iGT representative that there is no impact on the iGT UNC.

## EU Code Impacts

None.

## Central Systems Impacts

It is believed that the emergency cash-out price is input as a single figure manually and thus no central system change is needed in order to implement this Modification.

This was confirmed by the CDSP representative at Workgroup on 09 June 2022. The applicable ECTP is calculated by National Grid which is then notified to the CDSP. A week is needed to make a change to this process. This should be taken into account when setting the implementation date.

## Performance Assurance Considerations

Workgroup Participants have not identified any considerations.

## Panel Questions

Workgroup Participants discussed the questions on 5 May and responded to the written responses submitted by the Proposer.

### **Q1. Which Parties will be able to benefit from this facility/service and who will pay for it?**

#### **Proposer response**

All parties will benefit from this code change as it will apply to all Shippers/Customer. Any Shipper/Customer who is interrupted will receive the SAP price preceding the Day, not the 30-day average.

The costs of exercise of firm load shedding will be smeared to 'short' Shippers on the basis of imbalance. The market will then determine if any cost of firm load shedding is then passed on to customers or not.

It seems reasonable that society (shippers/ consumers) pays for the cost of insurance to have their supply maintained and the party that is firm load shed has improved compensation.

The alternative to not implementing this modification and keeping the status quo is that CCGTs operators leave gas purchasing until the prompt to manage renewable intermittency and market price risk. This places greater risk to society of a gas emergency because signals to attract the required gas will be time limited. If a gas emergency results in insufficient electricity generation, through firm load shedding, Customers will have reduced electricity supply and other services that require electricity.

CCGT operators potentially deciding not to generate on the prompt will commercially have forgone Spark Spread revenue (difference between electricity revenue and gas & carbon costs) but will have avoided the much larger cashout costs on the electricity market up to £6000 MWh, should they be firm load shed.

The example attached is based on the highest prices observed and assumes the emergency occurs on the day after the highest price, from which the change in compensation from the 30-day average SAP to the SAP price of the preceding day can be calculated. In both cases the increase in cost is circa £2.4 Million for 1 Million therms, the energy required by a 700 MW CCGT to operate at full load for 24 hours.

*The Workgroup was provided with Excel worksheet analysis (described above) that showed the impact of applying the proposed cash-out change for a supposed incident on 7 March 2022. The effect in this example is £0.11 per customer if all the cost is passed through.*

A Workgroup Participant enquired if the intention will be to also adjust the price for the Emergency Curtailment Trade (Q6.2) as the Proposal only sets out the rationale for the change to the unit rate of the DSR Payment (Q6.4). The Proposer responded that the intention is to revise the Emergency Curtailment Trade Price for all its applications in Section Q. However, it stated that it did not intend to revise its Proposal to additionally set out the rationale for the change to the unit rate of the Emergency Curtailment Trade.

**Q2. How does this new service interact with the DSR product and does utilisation of DSR mitigate/reduce the need for this proposal? (see Modification 0504)**

**Proposer Response**

The market has changed materially since Modification 0504, at that time coal fired generation could substitute for gas fired generation and DSR was possible. However, with coal now largely removed that option is no longer available at material scale. Additionally, the electricity market arrangements both in the energy and capacity markets make voluntary load shedding commercially unviable in a tight market. We also note that gas GDN DSR auctions have attracted very little interest in past years. This provides evidence that the potential for voluntary demand side reduction is in fact limited and in practice a gas supply deficit is highly likely to result in the firm load shedding of the largest demand.

A Workgroup Participant pointed out that the quantity of commercial interruption is unknown and that there is little evidence to suggest that customers would be prepared to self-interrupt on commercial terms. The contractual terms are usually commercially sensitive, and Shippers are unlikely to be willing to reveal details within the Workgroup context. It was suggested evidence of interruptible contracts could be provided to Ofgem in confidence so it was recommended that there should be a Consultation Question/request to ask parties to provide evidence of contracts.

A Workgroup Participant referred to the bid acceptance process and asked whether in the current industry climate whether high bids for load shedding would be accepted. Some Workgroup Participants noted that the principle behind the DSR product may be less likely to be utilised by generation and 30-day SAP effectively creates head room to allow deals to be struck.

National Grid submitted its response to Workgroup, and confirmed it did not support the Modification, based on slides shown and discussed on 09 June 2022 <https://www.gasgovernance.co.uk/0806/090622>. (The basis for its non-supporting position is that it erodes the headroom between SMP(b) (Cash out) and ECTP (DSR Payment)):

*“This wording is extracted from the Solution section of the Proposal and changes the basis on which the Emergency Curtailment Trade Price (ECTP) is determined. This therefore impacts anywhere within the UNC arrangements that this definition is utilised.*

*The ECTP itself is used for two distinct and separate processes within Section Q the TPD:*

- *the Emergency Curtailment Trade recognises that a Shipper who is short going into an emergency may have its daily imbalance liability reduced because of the curtailment of demand*

*in an emergency. This would limit the targeting of costs to Shippers contributing to an emergency and weaken the incentive to contract for adequate supplies and demand response. This trade therefore effectively increases the Shippers 'demand' position by the curtailed quantity to maintain effective cost targeting and retain the incentive to contract for adequate supplies.*

- *the DSR Payment is paid to consumers (via Shipper/Suppliers) in recognition of the involuntary curtailment of their gas supply in an Emergency. In broad terms, Daily Metered Points ('DR System Exit Points') receive the curtailed volume multiplied by the ECTP.*

*Each of the distinct processes mentioned were introduced at separate points:*

- *the Emergency Curtailment Trade by UNC Modification 0044 implemented in October 2005; and*
- *the DSR Payment by the Ofgem Security of Supply Significant Code Review implemented in October 2015*

*In both cases, the unit rate was intentionally set at such a level as to maintain an incentive for the establishment of voluntary curtailment arrangements for consumers to reduce offtake ahead of an emergency. To this extent, the intention was not to 'compensate' consumers for consequential losses arising from the curtailment nor specifically reflect the price of gas at the point of curtailment (or indeed immediately prior).*

*Looking at the incentive specifically, short Shippers on the day an emergency is declared will be cashed out at the System Marginal Price (buy) (SMP(b)). As this price is expected to be escalating heading towards and into an emergency, this is expected to be higher relative to the average of the System Average Price (SAP) for the 30 days preceding this point, this being the rate at which payments are made to consumers for involuntary curtailment (i.e. the ECTP).*

*Given this, there is an incentive for Shippers and Consumers to agree (where practical) mutually beneficial voluntary curtailment arrangements. The mutual benefits are:*

- *for the Shipper: 'short' imbalance is effectively settled at a lower rate than the SMP(b) (i.e. the contract price the Shipper pays the consumer to voluntarily curtail offtake)*
- *for the Consumer: the payment it receives for voluntary curtailment (i.e. the contract price) is higher than the payment it would receive for involuntary curtailment (i.e. the ECTP)*

*The impact of the proposed change, which is expected to increase the rate of the ECTP, therefore pushes that lower dashed line up towards the SMP(b) level to the extent that the incentive to agree any such arrangements for voluntary curtailment is reduced or potentially eliminated*

*[See slide 5: <https://www.gasgovernance.co.uk/sites/default/files/ggf/book/2022-05/0806%2020220609.pdf> .]*

*The Proposer suggests that the rationale expressed in 2014 for the existing payment level is no longer valid as CCGTs are unlikely to agree to voluntary curtailment arrangements.*

*Whilst this may be the case for some or all CCGTs, National Grid notes that this change would apply to all relevant points and therefore this adversely impact the incentive to strike voluntary curtailment contracts at all relevant points, not just CCGTs.*

*National Grid continues to believe that voluntary curtailment is an important tool to avoid the need to declare a Gas Deficit Emergency. Therefore, although voluntary curtailments arrangements appear to not be widespread, a change that results in the removal or severe limitation of any incentive to establish such arrangements at all points is not something that we can support.*

*National Grid would urge the industry (and specifically those consumers that are in a position to voluntarily curtail in an Emergency) to reconsider the benefits that such arrangements may offer.*

*The Proposer also notes that the costs it incurs in the electricity market for non-generation far outweigh any payments received via the gas arrangements for curtailment.*

*It is important to re-state that the intention of the ECTP was not to 'compensate' consumers for any losses arising from the curtailment, nor specifically to reflect the price of gas at the point of curtailment or immediately prior to the declaration of an emergency. The purpose was to establish an incentive for the striking of contracts for voluntary curtailment which National Grid believes will adversely impacted by implementation of this Proposal."*

### **Q3. What is the likelihood of this Modification being required?**

#### **Proposer response:**

The commercial disincentive and barrier to purchasing gas arising from the current market arrangements require this modification to be raised. Without this modification there is a commercial risk incentive not to buy gas in advance which increases reliance on the prompt market. With less long term contractual supply, there is an increased exposure to prompt events and given the escalation of war in Ukraine the risk of supply loss to Europe from Russia either by accident or design have increased. As to the exact likelihood of the emergency arrangements being exercised this is unknown. But this modification will make the likelihood of an emergency less because a barrier to purchasing gas for CCGTs in advance will be removed from the gas market and thus better enable gas supply to match demand

A Workgroup Participant noted that the wording should probably read "utilised". It depends on how much more challenging the circumstances become over Winter 2022/23.

A Workgroup Participant noted that acceptance of this modification would immediately reduce the risk for generators for purchase of forward gas – but hoped that the likelihood of the arrangement being used is very low.

### **Q4. Should additional electricity prices be used in scenario analysis?**

#### **Proposer Response:**

It is challenging to predict the commodity prices that will arise in the event of an emergency. The electricity cashout prices used to illustrate the risk incentive not to sell spark spread in advance in the modification are £6000 /MWh based on the Value Of Lost Load. The highest cashout prices seen to date are £4000 /MWh. The VOLL value of £6000 /MWh seems a reasonable estimate given that an emergency will represent significant market stress above those prices experienced to date which did not have firm load shedding. In the event that actual historical prices are used to assess cashout risk then values will be 2/3 of the value so £40 Million and not £60million.

A Workgroup Participant noted it is ordinarily very difficult to predict what the price of the spike will be, however cashout has to be at least VOLL due to the prescribed arrangements in the electricity market in an electricity event. Whether this occurs at the same time as a gas event is not known but they are clearly linked. It was noted that Ofgem has oversight over both markets.

## **Workgroup Impact Assessment**

The Workgroup on 5 May briefly considered if there were any alternative means in which to achieve the same objectives of this Modification. The Proposer explained he had considered the voluntary interruption regime, but this was more complex.

A Workgroup Participant asked whether the introduction of commercial conditions that do prove to encourage forward purchase of gas could help avoid a Gas Deficit Emergency (GDE). It was the view of the proposer that forward contracting could reduce the risk of supply loss and could avoid a 'scramble' in demand for gas. It was

noted that a ‘wait and see approach’ could result in increased short-term commercial pressures which would impact price.

### Rough Order of Magnitude (ROM) Assessment

It is believed that the emergency cash-out price can be a User-input and thus system change is not required.

This has been confirmed by the CDSP representative - See Central Systems Impacts above.

## 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.	None
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.	Positive

### Proposer’s view:

#### Positive impact on Relevant Objective a) Efficient and economic operation of the pipe-line system:

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 and economic operation of the pipeline system.

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.

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.

### **Positive impact on Relevant Objective f) Promotion of efficiency in the implementation and administration of the Code:**

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.

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.

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.

### **Workgroup views**

#### 09 June 2022

DSL payments are put through Balancing and Neutrality which means that those who pay are those Shippers who are short on the day of the emergency. This modification would change the price (increase the price).

A Workgroup Participant noted different trading/hedging strategies exist depending on spark spread, risk appetite etc. If it's left too late then there may not be an ability to source gas on the day needed.

A Workgroup Participant noted that the risks described by the Proposer may be slightly unique to the CCGTs who are buying gas and selling power back-to-back. The key thing is the mismatch between the within day gas and power prices.

A Workgroup Participant noted that the interaction here is between the gas and power market. The benefit of the relief in the modification proposal is given to all, rather than just those in the situation described. Could the benefit just be offered to those supporting the power market? Identifying them in Code could be difficult but this should not be a reason not to do it. There may be a challenge relating to the time it would take to do this.

The Proposer clarified that CCGTs are off first in an emergency, being the biggest consumers. How much commercial response is in existence? I&C consumers appear unlikely to want to have interruptible contracts. A question in the consultation with confidential responses forwarded to Ofgem may be able to explore this further.

Workgroup Participants noted that Ofgem may be in a better position to specify who this Modification should be aimed at, taking into account their statutory duties relating to security of supply.

The Proposer confirmed that the Modification Proposal will go forward as it is written.

#### 07 July 2022 Further Discussions

In respect of Relevant Objective a)

A Workgroup Participant pointed out that the Modification is predicated on the assumption that it will create a greater incentive for forward procurement of gas, which may reduce the likelihood of going into an emergency. However, this may also be detrimental to the likely uptake of voluntary curtailment arrangements which is also a mechanism designed to avoid entering into an emergency.

A Workgroup Participant noted that DSR has not been attractive to date and the probability of this Modification attracting gas to be bought is higher than DSR.

In respect of Relevant Objective d)

A Workgroup Participant pointed out that avoiding an emergency would assist efficiency of implementation of the Code.

## 8 Implementation

The Proposer is seeking to have the Modification implemented as soon as possible.

A Workgroup Participant noted the point made by National Grid NTS that it would require one week to implement this change.

## 9 Legal Text

Legal Text has been provided by National Grid is included below. The Workgroup has considered the Legal Text and is satisfied that it meets the intent of the Solution.

### Text Commentary

This Modification proposes to change the Emergency Curtailment Trade Price defined in UNC TPD Section Q 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.

### Text

#### TRANSPORTATION PRINCIPAL DOCUMENT

#### SECTION Q – EMERGENCIES

Amend paragraph 6.1.1(c) to read as follows:

#### 6 EMERGENCY CURTAILMENT AND DEMAND SIDE RESPONSE (DSR) PAYMENTS

##### 6.1 General

6.1.1 For the purposes of the Code:

(c) “Emergency Curtailment Trade Price” means, in respect of a Day of Emergency Curtailment, ~~means: (i) the value (in pence/kWh) of the arithmetic mean of the System Average Prices determined under Section F1.2.1(c) or F1.2.2 for each of the 30-Days preceding the that Day; and~~

Insert text here

## 10 Consultation

Panel invited representations from interested parties on 21 July 2022. All representations are encompassed within the Appended Representations section.

The following table provides a high-level summary of the representations. Of the 4 representations received 3 supported implementation and 1 were not in support.

Representations were received from the following parties:		
Organisation	Response	Relevant Objectives
National Grid NTS	Oppose	a) negative f) negative
RWE Supply & Trading GmbH	Support	a) positive f) positive
SSE	Support	a) positive f) positive
Uniper	Support	a) positive f) positive

Please note that late submitted representations will not be included or referred to in this Final Modification Report. However, all representations received in response to this consultation (including late submissions) are published in full alongside this Report and will be taken into account when the UNC Modification Panel makes its assessment and recommendation.

## 11 Panel Discussions

## 12 Recommendations

### Panel Recommendation

Panel Members recommended that Modification 0806 **[should [not]** be implemented.

## 13 Appended Representations

Representation – National Grid

Representation – RWE Supply & Trading GmbH

Representation - SSE

Representation – Uniper

## Representation - Draft Modification Report UNC 0806

### Change to Curtailment Trade Price Compensation in Section Q

**Responses invited by: 5pm on 19 August 2022**

**To:** [enquiries@gasgovernance.co.uk](mailto:enquiries@gasgovernance.co.uk)

*Please note submission of your representation confirms your consent for publication/circulation.*

<b>Representative:</b>	Phil Lucas
<b>Organisation:</b>	National Grid NTS
<b>Date of Representation:</b>	17 <sup>th</sup> August 2022
<b>Support or oppose implementation?</b>	Oppose
<b>Relevant Objective:</b>	a) Negative f) Negative
<b>Relevant Charging Methodology Objective:</b>	Not Applicable

#### Reason for support/opposition: Please summarise (in one paragraph) the key reason(s)

National Grid NTS ('National Grid') views voluntary curtailment arrangements as a key tool to avoid the need to declare a Gas Deficit Emergency (GDE).

The proposed changes are likely to result in an increase to the value of payments made to consumers who are subject to *involuntary* curtailment in a GDE (i.e. Firm Load Shedding). Hence, in our opinion implementation of this Proposal would, as a minimum reduce, or potentially remove altogether, the existing commercial incentive for shippers and consumers to enter into *voluntary* curtailment arrangements either bi-laterally in the form of commercial interruption arrangements or via the 'central' Demand Side Response (DSR) mechanism. Further explanation of the nature of the existing incentive is provided in the 'additional analysis' section of this representation.

Given the adverse impact on the establishment of voluntary curtailment arrangements, we do not believe that implementation will better facilitate relevant objective (a) nor objective (f).

We recognise that our recent industry engagement on Gas DSR has shown that there are challenges to participation in the current scheme and we are continuing to work with industry stakeholders to consider the changes that are needed to increase such participation. Our preference is therefore to strengthen incentives for voluntary DSR rather than dampen them.

### Implementation:

As noted in the Draft Modification Report, the Emergency Curtailment Trade Price (ECTP) is input into the relevant systems as a single figure manually and thus no change to central systems is needed in order to implement this Modification.

The applicable ECTP is calculated by National Grid which is then notified to the CDSP. A lead time of one week is needed to make a change to this process.

### Impacts and Costs:

National Grid would not incur material costs in implementing this change.

Further, no analytical or ongoing costs would be incurred as a consequence of implementation.

### Legal Text:

National Grid is satisfied the legal text meets the intent of the solution.

### Modification Panel Members have requested that the following questions are addressed:

*Q1: Do industry parties have any additional comments relating to impacts on CCGT and/or other I&C customers in respect of this Modification Proposal?*

Whilst the Modification is focused heavily on the impacts to power generation sites, the proposed change to the calculation of the ECTP (as defined in the current UNC) would apply in respect of *all* the relevant sites impacted by Firm Load Shedding (and indeed to all Shippers that would be subject to an Emergency Curtailment Trade). To this extent, the concerns we set out in this representation regarding the adverse impact on the establishment of voluntary curtailment arrangements apply equally across all consumers within the relevant Annual Quantity (AQ) banding (i.e. all sites with an AQ in excess of 58.6million kWh).

### Are there any errors or omissions in this Modification Report that you think should be taken into account?

National Grid has not identified any such errors or omissions.

### Please provide below any additional analysis or information to support your representation

#### **Scope and Rationale Set Out in the Proposal**

In its Modification, the Proposer limits its stated justification for change to:

- a) the current “curtailment compensation” (in the UNC known as the ‘DSR Payment’ under TPD Section Q6.4); and
- b) gas fired electricity generation (power generation)

In terms of the former, it is worthy of note that ECTP (the definition of which the Proposer expressly seeks to revise) is in fact used for **two** distinct and separate processes within Section Q the TPD:

- the **Emergency Curtailment Trade** (TPD Section Q6.2) recognises that a Shipper who is short going into an emergency may have its daily imbalance liability reduced because of the curtailment of demand in an emergency. This would limit the targeting of costs to Shippers contributing to an emergency and weaken the incentive to contract for adequate supplies and demand response. This trade therefore effectively increases the Shippers 'demand' position by the curtailed quantity to maintain effective cost targeting and retain the incentive to contract for adequate supplies.
- the **DSR Payment** is paid to consumers (via Shipper/Suppliers) in recognition of the involuntary curtailment of their gas supply in an Emergency. In broad terms, Daily Metered Points ('DR System Exit Points') receive the curtailed volume multiplied by the ECTP.

Each of the distinct processes mentioned were introduced at separate points:

- the Emergency Curtailment Trade by UNC Modification 0044 implemented in October 2005; and
- the DSR Payment by the Ofgem Security of Supply Significant Code Review implemented in October 2015

In both cases, the unit rate was intentionally set at such a level as to maintain an incentive for the establishment of voluntary curtailment arrangements for consumers to reduce offtake ahead of an emergency<sup>1</sup>. To this extent, the intention was not to 'compensate' consumers for consequential losses arising from the curtailment nor specifically reflect the price of gas at the point of curtailment.

We note that whilst the Proposer sets out a rationale for change to the level of **DSR Payments** there is no equivalent rationale for the consequential change to the value reflected in the **Emergency Curtailment Trade**.

Further, as the rationale that *is* set out is limited in scope to **gas fired generation** there is no identified rationale for the adjusting the likely level of DSR Payments to non-power generation consumers.

Given the above, we believe the justification for the change is deficient given the scope / impact of the change

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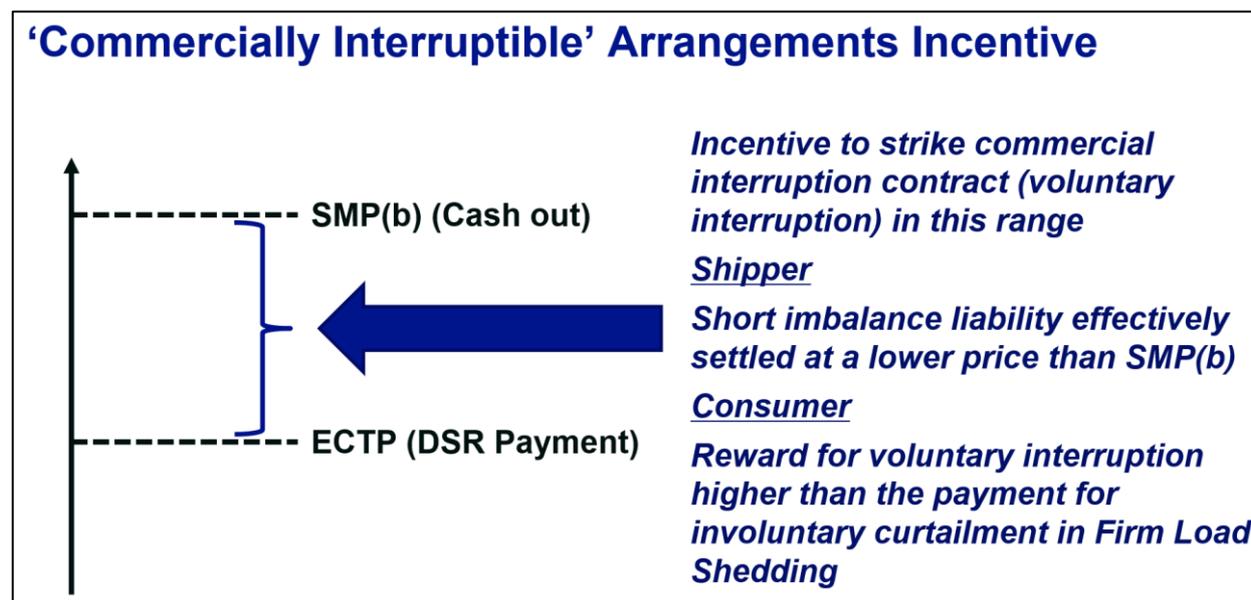
<sup>1</sup> See [Ofgem decision letter for UNC Modification 0044](#) – page 19: “The effect of this should be to provide stronger commercial incentives on shippers to contract for commercial interruption both prior to and in an emergency (and also to take supply side steps to resolve their imbalance position), rather than waiting for [National Grid] to curtail significant loads” and [Security of Supply SCR Final Policy Decision](#) – para 3.11: “our key consideration is ensuring that incentives to strike commercially interruptible contracts are not eliminated...Such an arrangement means shippers and DM consumers can potentially agree mutually beneficial interruption – at a price between the involuntary DM price and the shipper’s expected cash-out price”

## Price Incentive to Establish Voluntary Curtailment Arrangements

As set out above, National Grid views voluntary curtailment arrangements as a key tool to avoid the need to declare a Gas Deficit Emergency (GDE).

With respect to the nature of the existing incentive to enter into such voluntary arrangements, 'short' Shippers (those providing insufficient supplies to the system, to meet the demand of their customers) during an emergency will be cashed out at the System Marginal Price (buy) (SMP(b)). As this price is expected to be escalating heading towards, and into, an emergency, this is expected to be higher relative to the average of the System Average Price (SAP) for the 30 days preceding this point, this being the rate at which payments are made to consumers for involuntary curtailment (i.e. the ECTP).

Given this, there is an incentive for Shippers and Consumers to agree (where practical) mutually beneficial voluntary curtailment arrangements. The following illustrates this incentive:



The mutual benefits are:

- for the **Shipper**: 'short' imbalance is effectively settled at a lower rate than the SMP(b) (i.e. the contract price the Shipper pays the consumer to voluntarily curtail offtake)
- for the **Consumer**: the payment it receives for voluntary curtailment (i.e. the contract price) can be a more accurate reflection of the cost of interruption which is likely to be higher than the payment it would receive for involuntary curtailment (i.e. the ECTP)

The impact of the proposed change, which is expected to increase the rate of the ECTP, therefore reduces or eliminates the price differential between the SMP(b) and the ECTP to the extent that the incentive to agree any such arrangements at a price between these two levels for voluntary curtailment is reduced or potentially eliminated.

As outlined above, our preference is to develop measures that serve to avoid the need to declare a GDE as a preferred outcome and believe that all such measures to maintain an operational balance should be afforded the opportunity to bear fruit. Whilst the Proposer advances arguments suggesting that implementation of its change may also assist in the prevention of a GDE, this is contingent on changes in commercial behaviours in terms of the forward contracting of gas. However, we have not seen any evidence that the proposed change would in practice change gas procurement behaviours as described.

Whilst such a behaviour change may or may not be borne out as a consequence of implementation, we believe that the incentive to enter into voluntary curtailment arrangements *will* be adversely impacted by implementation. Given this, we believe that the two outcomes in terms of ECTP (i.e. (a) increasing the ECTP for involuntary compensation in order to incentivise the forward procurement of gas; and (b) maintaining a lower ECTP for involuntary compensation in order to incentivise the establishment of arrangements for voluntary curtailment) are mutually exclusive.

## Representation - Draft Modification Report UNC 0806

### Change to Curtailment Trade Price Compensation in Section Q

**Responses invited by: 5pm on 19 August 2022**

**To:** [enquiries@gasgovernance.co.uk](mailto:enquiries@gasgovernance.co.uk)

*Please note submission of your representation confirms your consent for publication/circulation.*

<b>Representative:</b>	Lauren Jauss
<b>Organisation:</b>	RWE Supply & Trading GmbH
<b>Date of Representation:</b>	18 August 2022
<b>Support or oppose implementation?</b>	Support
<b>Relevant Objective:</b>	a) Positive f) Positive
<b>Relevant Charging Methodology Objective:</b>	Not Applicable

#### Reason for support/opposition: Please summarise (in one paragraph) the key reason(s)

We agree that the current compensation price for gas (30 day average SAP prior to a Gas Deficit Emergency) creates a significant disincentive for CCGT operators to buy gas and sell power in advance. The procurement of gas in advance is likely to better facilitate procurement and planning the delivery of LNG cargoes. The alternative is a higher demand for gas in the GB market arising in very short timescales before delivery which may leave insufficient lead time to be met by additional LNG deliveries.

The current arrangements have been designed to incentivise Users to provide Demand Side Response, by setting the compensation price so it is likely to be much lower than the actual value of the gas on the day of the interruption. However, this approach may not have delivered any benefits to date because DSR has not been used.

Meanwhile, if a CCGT operator has bought power and sold gas in advance, but the CCGT's gas supply is interrupted, the difference between the cost of the power that must be bought back at market price and the compensation price for gas is likely to be very high indeed. The risk of incurring the costs of being interrupted may therefore outweigh the probability of benefitting from hedging gas and power in advance, which is contingent on not being interrupted.

This risk reduces substantially if the compensation price is amended to the SAP price on the day prior to a Gas Deficit Emergency because it is likely to be more closely correlated

to the value of the gas on the day of the interruption and therefore also to the cost of buying back the power.

Whilst we support the development of suitable DSR arrangements, we believe purposefully setting the compensation price so it is likely to be much lower than the actual value of the gas on the day of the interruption is on balance detrimental rather than beneficial to competition and security of supply. Setting the compensation price to the SAP price on the day prior to a Gas Deficit Emergency would be a significant improvement to the current arrangements.

**Implementation:** *What lead-time do you wish to see prior to implementation and why?*

As soon as possible, to immediately reduce the disincentive to procure gas in advance for this winter.

**Impacts and Costs:** *What analysis, development and ongoing costs would you face?*

None

**Legal Text:** *Are you satisfied that the legal text will deliver the intent of the Solution?*

Not reviewed

**Modification Panel Members have requested that the following questions are addressed:**

*Q1: Do industry parties have any additional comments relating to impacts on CCGT and/or other I&C customers in respect of this Modification Proposal?*

We agree with the proposer that the current arrangements that set the compensation price so it is likely to be much lower than the actual value of the gas on the day of the interruption creates a disincentive for CCGT operators to buy gas in advance, yet has not delivered any benefits in the use of DSR.

**Are there any errors or omissions in this Modification Report that you think should be taken into account?** *Include details of any impacts/costs to your organisation that are directly related to this.*

No comment

**Please provide below any additional analysis or information to support your representation**

No comment

## Representation - Draft Modification Report UNC 0806

### Change to Curtailment Trade Price Compensation in Section Q

Responses invited by: **5pm on 19 August 2022**

To: [enquiries@gasgovernance.co.uk](mailto:enquiries@gasgovernance.co.uk)

*Please note submission of your representation confirms your consent for publication/circulation.*

<b>Representative:</b>	Jeff Chandler
<b>Organisation:</b>	SSE
<b>Date of Representation:</b>	5 August 2022
<b>Support or oppose implementation?</b>	Support
<b>Relevant Objective:</b>	a) Positive f) Positive
<b>Relevant Charging Methodology Objective:</b>	Not Applicable

#### Reason for support/opposition: Please summarise (in one paragraph) the key reason(s)

SSE supports this modification. It was raised to address a shortcoming in the UNC that creates a disincentive for CCGT operators to buy gas in advance. By rectifying this and reducing the disincentive to buy gas the supply situation for GB will be better than it otherwise would be, if advance purchases were not made.

The invasion of Ukraine and the recent reduction by Gazprom of gas pipeline supplies to Europe means that in the event of a prolonged cold Winter the UK is likely to experience gas rationing in some form. The current emergency arrangements require the firm load shedding of supplies to large customers (CCGTs) to maintain safe gas system pressure and prioritise supplies to domestic customers. In tight electricity market, the prevailing level of wind generation will then determine the subsequent impact on electricity supply interruption.

The commercial arrangements for imbalance and cashout in the electricity market are more extreme than those in the gas market and could lead to costs of tens of £ Millions per day for a CCGT if interrupted at short notice. This makes voluntary load shedding of CCGTs unlikely in the current tight electricity market and makes a Gas Deficit Emergency (GDE) with the above firm load shedding more likely. In this situation the compensation price paid to a CCGT for its gas is only the 30 day average SAP prior to the GDE and does not reflect the commercial value of the gas on the day.

With this background, from a financial risk perspective it might make sense for CCGTs not to commit to generate in advance but to wait until close to physical delivery; assess the prevailing weather conditions and if gas is available commit to burn gas and generate electricity. Given that the UK is reliant on LNG flows for gas security this Winter, this risk avoidance strategy whilst best for CCGTs might not be best for the gas industry and GB as a whole and may not lend itself to attracting LNG supply in time.

Therefore, to attract LNG gas supply in-advance and help avoid a GDE the compensation payable in the event of firm load shedding needs to be improved as per UNC modification 806 to the SAP price on the day prior to the GDE. This will better incentivise the purchase of gas in advance because of the improved commercial conditions and therefore avoid a scramble to buy LNG at short notice.

Arguments have been made that this will modification will deter Demand Side Response (DSR). We do not believe that in its current form this will be the case as DSR has not been used to date, evidenced by the following examples:

1. No DSR was used on the “Beast from the East Day” in 2018.
2. GDNs have not had success in attracting DSR.
3. At the recent Gas DSR workgroup on 14 July 2022, anecdotal evidence was given that industrial Users were focused on using gas to continue production of their core business, in spite of apparent significant commercial advantage to sell gas back to the market.

SSE therefore believes it is better to implement this modification and facilitate the contracting of gas in advance which will help avoid a potential GDE. This will provide more certainty of security of supply than relying on the current DSR mechanism that has been shown to be ineffective.

It would however, be better to have both tools available and SSE would be supportive of an immediate replacement DSR mechanism for this Winter. It will likely need to be of a different structure to the existing mechanism and provide more certainty and notice of usage to users providing the service. Different funding and different commercial incentives to compensate for maintaining back up facilities need to be funded over a number of years until new gas supplies and renewable energy can replace Russian gas.

**Implementation:** *What lead-time do you wish to see prior to implementation and why?*

As soon as possible to allow LNG to be contracted ahead of the Winter.

**Impacts and Costs:** *What analysis, development and ongoing costs would you face?*

None

**Legal Text:** *Are you satisfied that the legal text will deliver the intent of the Solution?*

Yes

**Modification Panel Members have requested that the following questions are addressed:**

*Q1: Do industry parties have any additional comments relating to impacts on CCGT and/or other I&C customers in respect of this Modification Proposal?*

Any increase in costs arising from implementation and use of this modification will be borne by Shippers who are short on the day. This maintains and strengthens the cashout signals for Shippers to balance. It is questionable if end customers will see any increase in costs because not all Shippers will be short and a competitive market should ensure that only universal costs are passed through to customers.

The modification proposes the same compensation payment to all participants of the UNC to avoid discrimination.

**Are there any errors or omissions in this Modification Report that you think should be taken into account?** *Include details of any impacts/costs to your organisation that are directly related to this.*

None

**Please provide below any additional analysis or information to support your representation**

Already provided to workgroup.

## Representation - Draft Modification Report UNC 0806

### Change to Curtailment Trade Price Compensation in Section Q

**Responses invited by: 5pm on 19 August 2022**

**To:** [enquiries@gasgovernance.co.uk](mailto:enquiries@gasgovernance.co.uk)

*Please note submission of your representation confirms your consent for publication/circulation.*

<b>Representative:</b>	Richard Fairholme
<b>Organisation:</b>	Uniper
<b>Date of Representation:</b>	19/08/2022
<b>Support or oppose implementation?</b>	Support
<b>Relevant Objective:</b>	a) Positive f) Positive
<b>Relevant Charging Methodology Objective:</b>	Not Applicable

#### **Reason for support/opposition: Please summarise (in one paragraph) the key reason(s)**

We support this proposal. This is because, if implemented, it would ensure NTS Users that are subject to involuntary interruption of gas supplies, would receive a price for their gas that is more closely aligned with the prevailing market price at the time of the interruption.

Contrary to NGG's view, we do not believe that this would reduce any incentives for voluntary interruption, pre-emergency, as such actions would also be linked to the prevailing market prices. This proposal is not seeking to pay any sort of "premium" above the market price, in the event of involuntary interruption, so we see no reason why NTS end consumers would deliberately wait for (unpredictable, highly risky) involuntary interruption in the hope of securing a 'better price' for their gas.

#### **Implementation: What lead-time do you wish to see prior to implementation and why?**

As soon as practicable and ideally before Oct 1, 2022

#### **Impacts and Costs: What analysis, development and ongoing costs would you face?**

None expected.

**Legal Text:** *Are you satisfied that the legal text will deliver the intent of the Solution?*

Yes.

**Modification Panel Members have requested that the following questions are addressed:**

*Q1: Do industry parties have any additional comments relating to impacts on CCGT and/or other I&C customers in respect of this Modification Proposal?*

We do not believe this proposal should be held back whilst NGG considers changes to the existing DSR product for this Winter. Industry discussions to date have indicated that the only change NGG plans to make is the addition of an option payment. In our view, this will be insufficient to stimulate any *significant* DSR this coming Winter. Therefore, the prospect of firm load shedding of NTS connections only appears marginally less likely, in the event of a difficult Winter. Ensuring affected parties are paid a more fair, market reflective price, therefore, seems a reasonable adjustment to make ahead of this Winter.

**Are there any errors or omissions in this Modification Report that you think should be taken into account?** *Include details of any impacts/costs to your organisation that are directly related to this.*

No.

**Please provide below any additional analysis or information to support your representation**

Nothing to add.