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

UNC 0761:

Arrangements for Interconnectors with additional Storage capability

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

Purpose of Modification:

This Modification proposes changes to the Uniform Network Code (UNC) to incorporate additional commercial arrangements for the operation of Interconnectors with additional storage capability.

Next Steps:

Panel consideration is due on 16 December 2021 *(at short notice by prior agreement)*

High Impact:

Interconnectors

Medium Impact:

Shipper Users, Storage Facilities

Low Impact:

None.

Contents

Timetable

Modification timetable:

Initial consideration by Workgroup	01 April 2021
Workgroup Report presented to Panel	21 October 2021
Draft Modification Report issued for consultation	22 October 2021
Consultation Close-out for representations	19 November 2021
Final Modification Report available for Panel	22 November 2021
Modification Panel recommendation	16 December 2021
Final Modification Report issued to Ofgem	16 December 2021

Any questions?

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1 Summary

What

National Grid NTS has been informed by the operator of an Interconnector currently connected to the NTS (an 'Interconnector Operator' or 'IO') that it intends to offer an additional storage service to Shipper Users whereby gas may be offtaken from the NTS, stored in its system and subsequently be delivered back to the NTS. Concurrently, the Interconnector would be available for its existing use as a means of transporting gas to or from a Transmission System other than the NTS.

Existing UNC terms set out commercial arrangements for the delivery of gas to and from the NTS at Interconnectors and (at separate points) Storage Facilities. However, no such arrangements are included to facilitate the delivery of gas to and from the NTS at Interconnectors with additional Storage capability.

Why

As some aspects of the Transportation Charging arrangements for capacity and associated gas flows at Interconnection Points (IPs) differ with those in place for capacity and associated gas flows at Storage Connection Points, it is necessary to modify the UNC to include additional commercial arrangements to enable application of the correct Transportation Charges at Interconnectors able to offer an additional Storage service to their customers.

How

It is proposed that the UNC is modified to establish the necessary commercial arrangements where an IO elects to offer an additional Storage Service. Such arrangements will only be applicable in respect of Interconnectors that can physically flow gas in both directions. Such revisions seek to:

- set out the point definitions for Interconnectors (with additional storage capability) connected to the NTS;
- set out the determination of daily quantities of the following (at such facilities) in order to facilitate the correct application of Transportation Charges in respect of:
    - entry and exit capacity used for storage;
    - gas flow (UDQI and UDQO) to and from storage.
- set out rules for the application of Capacity Overruns at such facilities;
- set out the rules regarding Nominations and application of Scheduling Charges at such facilities;
- set out rules for the allocation of gas to Users at such facilities;
- set out the Charging Arrangements for transportation services in respect the use of such facilities; and
- set out the treatment of such facilities for the purposes of the management of Emergencies.

2 Governance

Justification for Authority Direction

This Modification Proposal is recommended to be sent to the Authority for direction as it is likely to have a material effect on commercial activities relating to the shipping, transportation and supply of gas because, if

implemented, it will establish a framework for a new 'dual purpose' point on the NTS and enable the appropriate Transportation Charges to be levied in respect of capacity and gas flows at such points.

Requested Next Steps

This Modification should:

- be considered a material change and not subject to Self-Governance;
- be assessed by a Workgroup for a period of 6 months.

3 Why Change?

National Grid NTS has been informed by the operator of an Interconnector currently connected to the NTS that it intends to offer an additional storage service to GB shippers (Users) whereby gas may be offtaken from the NTS, stored in its system and at a subsequent point in time be delivered back to the to the NTS. Concurrently, the Interconnector primary purpose would be for conventional use for the transportation of gas to or from a Transmission System other than the NTS.

Aspects of the Transportation Charging arrangements for capacity and associated gas flows at IPs differ with those in place in respect of capacity and associated gas flows at Storage Connection Points. The prevailing Transportation Charging Methodology provides that:

- the **Transmission Services Capacity** Reserve Price and **Revenue Recovery** Charge rate[1] for Storage Connection Points are subject to a Specific Point Discount, currently 50%. Following Ofgem's direction to implement Modification 0727 '*Increasing the Storage Transmission Capacity Charge Discount to 80%*' this discount will increase to 80% from 01 October 2021.
- gas flows to and from Storage Connection Points (except 'own use' gas) are exempt from the **General Non-Transmission Services** charge.

In order to correctly apply the above Transportation Charge principles, it is necessary to modify the UNC to include additional commercial arrangements applicable for Interconnectors with the described additional Storage capability, to enable the Connected System Point to be designated as an IP and a Storage Connection Point (SCP).

The new arrangements will only be applicable in respect of Interconnectors that can physically flow gas in both directions. The definition of Storage Facility in the UNC (TPD R1.2.1(a)(iii)) describes a facility where "…*gas is offtaken from the Total System*..." and "…*stored gas*…" is subsequently "…*delivered to the Total System*". National Grid's interpretation is that gas 'offtaken' and 'delivered' refers to physical delivery as described in TPD Section J and I.

Whilst recognising that concurrent operation of both conventional 'interconnector transportation' and 'interconnector storage' functions may enable the IO to limit physical flows to a 'net' volume in the relevant flow direction, the IO nevertheless has the *capability* to physically flow in both directions. This enables the correct volumes of gas to be flowed even if there are zero transportation flow volumes on a particular day.

In principle, this is no different to a conventional Storage Facility which is only required to flow a net volume in the relevant direction where on a day (for example) one User wishes to withdraw 10 units of gas from storage

[1] The implementation of Modification 0729 from 01 October 2021 will additionally apply the Specific Point discount (applicable for Storage) to the Transmission Services Revenue Recovery Charge rate.

whilst a different User wishes to inject 20 units of gas into storage. In this case the storage operator is only required to physically inject 10 units of gas into its facility.

Extension of the applicability of the proposed arrangements to Interconnectors who can only offer 'virtual' reverse flow does not align with the definition of Storage Facility in respect of physical flows. Further, such a facility would be unable to physically respond to the commercial needs of its customers if there are zero transportation volumes on a given day and the net storage flows are required in the 'virtual' (non-physical) direction. Hence this proposal limits the arrangements to Interconnectors with capability to physically flow in both directions.

Benefits to the GB Market

Facilitating the availability of additional storage capability connected to the NTS will increase the options available to Users (for the avoidance of doubt, those in GB only) when seeking such a flexibility service, thereby better facilitating competition between those shippers (UNC Relevant Objective (d)). Such a service creates additional optionality for Shipper Users to accommodate temporary market fluctuations and provide assistance with balancing. These benefits help better facilitate the GB market's Security of Supply and have the potential to lower balancing costs.

The solution takes effect in respect of any Interconnector SCP on the NTS where a Storage Connection Agreement is in place between National Grid NTS and the relevant IO. Such arrangements also support the efficient and economic operation of the combined pipeline system and the pipeline system of an IO, furthering UNC Relevant Objectives (a) and (b).

Principle

The prevailing UNC separately defines an IP and a Storage Connection Point, therefore the UNC will need to be modified to make provision for the operation of Storage within a bi-directional Interconnector and for the proposed commercial arrangements to apply in respect of this Storage service. The availability of the UNC terms related to the Storage service at the relevant IP would be contingent on the establishment of Network Exit Provisions and a Network Entry Agreement (between National Grid and the relevant Interconnector Operator) as per the existing requirements of TPD I1.3.1 and TPD J1.5.2.

Precedent

A new 'dual purpose' point (i.e. IP and Storage Connection Point) will need to be reflected in the relevant commercial and regulatory arrangements. This would be the first such 'dual usage' point on the NTS.

However, a similar 'dual purpose' facility in Europe is the Etzel storage facility in Germany which is connected to both German and Dutch Transmission Systems. In this case, the primary purpose of the facility is storage with the additional option to utilise the facility for the purposes of transportation between the two Transmission Systems.

At this facility the Shipper makes an ex-ante decision as to the purpose of the flow (i.e. storage or transportation) with two accounts being maintained for each User; one for storage (attracting the relevant discounted charges) and the other for transportation (attracting the standard charges).

Storage in an Interconnector – Application of a Discount

The appropriateness of discounted capacity charges for gas entering or exiting a Storage Facility was recognised by Ofgem in its Minded to Decision in respect of Modification Proposal 0678 and its Alternatives[2]:

> "*When gas enters and exits from the NTS and also enters and exits from a storage facility on route, it could pay entry and exit tariffs for both the NTS and the storage facility. Absent a discount, a fixed amount of gas that uses storage on the NTS could be paying twice as much for cost recovery of the NTS system than the same amount of gas which simply traverses the system. In order to avoid this 'double charging' of gas using storage, we therefore consider a discount of at least 50% for storage entry and exit capacity to be appropriate.*"

As noted, Ofgem has subsequently directed the implementation of Modification 0727 which will increase this discount to 80%. In its decision letter, Ofgem commented:

> "*Storage can improve the efficiency of system operation and reduce operating costs by providing additional pressure to the system. The Proposer argues that storage provides a benefit to the transmission system in terms of avoided investment in additional capacity. We agree that there is merit in these arguments. We consider that the proposed higher storage discount would facilitate the continued contribution of storage to the efficient and economic operation of the pipe-line system*".

The nature of the service that will be offered by an IO which enters into a Storage Connection Agreement will, in line with other Storage Facilities connected to the NTS, allow Users to offtake gas from the NTS, to store such gas (in this case within the IO's Storage Facility) for an agreed period and then subsequently deliver an equivalent volume back to the Total System. This characteristic is consistent with the existing UNC definition of a Storage Facility therefore it is appropriate that associated capacity and gas flows are subject to the relevant rules in the Charging Methodology which apply in respect of other Storage Facilities.

UNC Arrangements – Capacity Principles

No distinct 'storage capacity' product will be made available to Users by National Grid NTS at the relevant IP. Alternatively, the bi-lateral arrangements in place between National Grid NTS and the relevant IO will provide for the IO to inform National Grid NTS of the quantity of each User's Entry Capacity or Exit Capacity at the IP (for a relevant day) that should, *ex-post*, be classified as being used for storage.

In order to ensure that each User has sufficient NTS capacity to be classified as Storage, and that only the capacity intended to be utilised for Storage Purposes obtains the appropriate discount, the actual quantity of a User's capacity at the Interconnector SCP that the Storage Specific Point Discount will be applied to (for the relevant day):

- in the case of Entry, will be equal to the lesser of:
  - the User's IO-specified storage Entry Capacity quantity for that User;
  - the User's Registered NTS Entry Capacity (excluding Existing Registered Holdings); and
  - the User's storage gas Entry allocation.
- in the case of Exit, will be equal to the lesser of:
  - the User's IO-specified storage Exit Capacity quantity for that User;

[2] www.ofgem.gov.uk/publications-and-updates/uniform-network-code-unc621abcdefhjkl-amendments-gas-transmission-charging-regime - see paragraph 4.52

- the User's Registered NTS Exit Capacity; and
- the User's storage gas Exit allocation.

Registered NTS Capacity 'Cap'

This has been included to ensure that the maximum quantity of NTS capacity which can be subject to the Specific Capacity Discount is the quantity of NTS capacity that the User has registered at the relevant IP and which has not been used for the purposes of transportation by the IO. This excludes any NTS capacity the User has registered that is classified as Existing Contracts for the reasons set out below ('*UNC Arrangements – Specific Capacity Rules*').

We recognise that a User of a Storage (only) Facility obtains a discount on all of its Registered Capacity, however, at Interconnectors with additional storage, the proposed approach is that the capacity quantity that is subject to the Specific Capacity Discount for Storage is also capped at the User's Storage allocation quantity for the relevant day.

Whilst at Storage (only) Facilities, there is no alternative use of that capacity available/possible, and therefore no risk that unused capacity will be used for a 'non-discountable' purpose, this is not the case with Interconnectors with additional storage (the first 'dual purpose' point/s on the Total System) where the risk is present. A specific concern we have is that in absence of storage allocation cap, there would be a commercial incentive for Users to procure additional 'surplus' IO storage capacity if the aggregate cost of this, and the discounted National Grid IP capacity, is less than the cost of any residual un-discounted IP capacity.

We believe the flexibility at such IPs warrants the variation in treatment to ensure no utilisation of unused discounted storage capacity for transportation and to prevent unused capacity at the IP attracting the storage related NTS charges. We note that any such residual capacity would be available for transportation (non-storage) purposes and is therefore justifiably priced at the non-discounted capacity charge. This is also consistent with the principle that Transportation remains the primary purpose of an Interconnecter offering a supplementary storage service.

We believe this risk is similar in principle to the risk identified by Ofgem in its Impact Assessment[3] (and reflected in its final decision[4]) for Modification Proposal 0728C ('*Introduction of a Capacity Discount to Avoid Inefficient Bypass of the NTS*') where the risk of the application of a discount to a transportation route, other than one which qualifies for such a discount, was discriminatory. In this case we consider that in absence of a cap equal to the quantity of gas allocated to storage there is a risk capacity other than that intended for storage use will obtain a discount.

UNC Arrangements – Specific Capacity Rules

Capacity classified as:

- Existing Contracts (i.e. Entry capacity procured by a User prior to 6th April 2017) is not able to be utilised for storage purposes at an IP.

  Consistent with our views expressed in respect of UNC Modification Proposal 0737 ('*Transfer of NTS*

  Entry Capacity from a Capacity Abandoned ASEP') we believe that the effect of Article 35 of the EU Tariff Code (now incorporated into UK legislation as Retained EU Law) is to freeze the terms and

[3] See here. Specifically question 4 for respondees and para 3.34 "*We [Ofgem] consider that UNC728C carries the risk that the discount may not be used as intended*".
[4] See here. Specifically page 15, para 2 "…*UNC728C carries the risk that the discount may not be used as intended by its proposer because it is conceivable that a user may book discounted entry and exit capacity under UNC728C and then use either or both of these for a route other than the one identified as being at risk of bypass*…"

conditions applicable to that capacity, such conditions include the intended purpose of the capacity at the time of booking. Such capacity booked at IPs was procured for the solely for the purposes of transportation between the points at either end of the pipeline and was only envisaged as being for this purpose.

Further, limiting the capacity able to be utilised for storage at such IPs as described will ensure that all Users opting to utilise such a facility are subject to the equivalent Reserve Price for capacity thereby facilitating competition between those Users. Additionally, from an implementation perspective this would negate the need for National Grid to track the status of capacity (Existing Contracts or non-Existing Contract) in order to apply the Specific Capacity Discount to the correct payable price for capacity.

- All other capacity (other than Existing Contracts) including capacity acquired/allocated to a User *prior* to the implementation of this Proposal but after 6th April 2017 is able to be utilised for storage purposes at an IP.

  Whilst it can be also be concluded that capacity already allocated at an IP (*excluding* Existing Contracts) was equally only ever procured in the expectation of use for transportation purposes, there is no 'protection' in the EU Tariff Code in respect of such capacity holdings and therefore no apparent limitation on its use.

Where capacity is traded:

- in the case of Capacity Assignment under UNC TPD B6 (where the Assignee User becomes liable for all associated payments), as the Assignee User is liable for all associated payments and obligations it is proposed that it will obtain a discount for any capacity classified as being for Storage use. The term Registered Capacity includes any Transferred System Capacity (B6.3.1) hence why this term is used in the determination of Capacity Quantities subject to the Specific Capacity Discount in the Solution; and
- in the case of Capacity Transfer under UNC TPD B5 (where the Transferor User retains the payment obligation in respect of that capacity), as the Transferor User is not the party utilising the capacity it will not obtain a discount for any IP Capacity classified as being for storage use. As this price is confidential, it is neither practical nor appropriate for the Transferor User to obtain a Transportation Charge discount for any capacity that is subsequently classified as being for storage use. The term Registered Capacity excludes any Transferred System Capacity (TPD B1.4(b)) hence why this term is used in the determination of Capacity Quantities subject to the Specific Capacity Discount in the Solution.

UNC Arrangements – Payable Price for Capacity

A User's Registered Capacity on a day may constitute Firm and Interruptible Capacity components. Therefore, in order to determine the payable price for capacity eligible for the storage discount it is necessary to identify whether the relevant capacity quantity is Firm or Interruptible (Interruptible Capacity is itself eligible for a 10% discount). This is proposed to be achieved by the application of a 'merit order' whereby Interruptible and Firm is applied to the services (i.e. Storage and Transportation) in a predetermined order.

The proposed merit order seeks to align any firm capacity to the transportation component given that the payable price for any capacity allocated as NTS Optional Charge 'Eligible Quantity' is determined on the basis of the relevant discount percentage applied to the *Firm* Reserve Price (regardless of whether the capacity is Firm or Interruptible).

UNC Arrangements – Storage Overruns

To ensure that a User is incentivised to procure sufficient exit capacity for each distinct service, determination of whether NTS Exit (Flat) Overrun Charges are payable will be made separately in respect of both the proposed

storage service and the existing transportation service. This is consistent with the application of exit overruns at Storage Connection Points and IPs.

To ensure that Existing Contracts are not utilised for Storage, a Storage Entry Overrun charge will be payable where a User's aggregate Available NTS Capacity (excluding Existing Contracts) that can be used towards storage at a relevant IP ASEP is less than its aggregate storage gas allocations at the same IP ASEP.

The prevailing Entry Overrun regime will remain in place. Therefore, on a day where for a User both an Entry Overrun and Storage Entry Overrun is payable, to ensure no duplication of Overrun charges at the ASEP, only the higher of the Entry Overrun charge and the Storage Entry Overrun charge will be payable by the relevant User.

UNC Arrangements – Daily Nominations

Users wishing to flow gas to or from an IO's storage service will be required to submit separate storage Gas Nominations quantities to National Grid NTS. Any gas intended to flow in respect of the existing transportation service are required to be specified net of the quantity intended for storage.

To ensure that National Grid and the relevant IO has a consistent view of each Users storage Gas Nomination quantities, these nominations will be subject to the Matching Procedures and Rules described in EID Section C1.5.2 and C2.3.

To maintain consistency with the rules in place for Scheduling Charges, Scheduling Charges at Entry will be determined at an ASEP level and at Exit, separately for transportation (on the basis of comparing the matched transportation nomination quantity and the transportation allocation) and for storage (on the basis of comparing the matched storage nomination quantity and the storage allocation).

The current arrangements set out in EID Section C3 provide for adjustment of Nomination quantities as a consequence of the occurrence of an Exceptional Event. Given that such adjustments will be actioned ahead of the ex-post categorisation of capacity at an IP as being for storage use (as Nominations are finalised by 03:00 on the Day), a proportionate adjustment of both a User's storage Gas Nomination and its transportation Gas Nomination will be applied ensuring that the sum of such does not exceed its Available IP Capacity.

UNC Arrangements – Allocations

Consistent with the allocation principles in place at other Storage Connection Points, gas flows related to storage will be allocated on the basis of a measurement determined by the IO. Hence an IO which offers a storage service is required to provide National Grid NTS with a daily Exit and Entry IP Storage Measurement that the IO has determined has flowed into, or out of, (respectively) its storage facility.

Therefore, in respect of

- flows into the IO's Storage Facility related to the IO's storage service (Exit Storage Allocations) the requirements of UNC TPD Section E3.2 will apply (provision of an Exit Allocation Statement for each relevant User with the aggregate of the Exit IP Storage Allocations specified being equal to the Exit IP Storage Measurement); and
- flows out of the IO's Storage Facility related to the IO's storage service (Entry Storage Allocations) the requirements of UNC TPD Section E2.1 will apply (provision of an Entry Allocation Statement for each relevant User with the aggregate of the Entry IP Storage Allocations specified and any Unclaimed Entry Allocation Statement, being equal to the Entry IP Storage Measurement).

The allocation principles in place for the transportation gas flows at the IP will remain unchanged i.e. on the basis of 'allocate as nominate' with an Operational Balancing Account in place.

UNC Arrangements – Charging

The determination of the quantity of a User's capacity to be classified as storage requires finalised storage gas allocations (being one component of the 'lesser of' three values calculation). As gas allocations are not closed out at Entry Points until the 15th calendar day of the following month, and at Exit Points until the 5th calendar day following the Gas Day, it is not possible to reflect the Specific Point Discount for storage in the capacity invoice issued to Users on around the fifth calendar day on the month following the Billing Period.

As a consequence all capacity at the IP will be invoiced to Users at the standard (i.e. non-discounted) Transmission Services Capacity charge rate in the Capacity Invoice issued in the month following the Billing Period (i.e. M+1). The Capacity Invoice issued in the month subsequent to this (i.e. M+2) will include an adjustment to reflect the application of the Specific Capacity Discount for Storage for the appropriate capacity quantities classified as being utilised for storage.

As the General Non-Transmission Services charges are invoiced to Users after the respective Close Out period for Entry and Exit, the exemptions from the General Non-Transmission Services charges for Storage Gas Allocations will be reflected in the commodity invoices issued in the month following the Billing Period.

UNC Arrangements – Emergencies

Given the need to maintain clarity and certainty in the process of dealing with Emergency scenarios (as set out in TPD Section Q), Interconnectors that offer an additional Storage will be treated, for the purposes of the management of Emergencies, solely as an Interconnector. This is consistent with the principle that transportation between two Transmission Systems (i.e. interconnection) remains the primary purpose of such pipelines.

4 Code Specific Matters

Reference Documents

Point classifications – TPD A / EID A

Storage – TPD R

Capacity rules – TPD B / EID B

Nomination rules – TPD C / EID C

Allocation rules - TPD E / EID D

Charging Methodology – TPD Y

Knowledge/Skills

Transportation arrangements (and broader commercial arrangements) at IPs / Interconnectors and Storage Connection Points / Storage Facilities.

5 Solution

Principle

It is proposed that the UNC is modified to make provision for the operation of Storage within an Interconnector and for the arrangements set out in this Proposal to apply in respect of this Storage service.

For the avoidance of doubt, the availability of the UNC terms related to the Storage service at the relevant IP are:

- limited to Interconnectors that can physically flow gas in both directions; and
- contingent on the establishment of Network Exit Provisions and a Network Entry Agreement (between National Grid and the relevant Interconnector Operator) as per the existing requirements of TPD I1.3.1 and TPD J1.5.2.

Capacity – Determination of Capacity Quantities subject to Specific Capacity Discount

It is proposed that at an Interconnector SCP for each day, a User's IP Storage Capacity Quantity (SCQ_d) (i.e. the quantity of capacity which is entitled to the storage Specific Capacity Discount) is determined (separately for Entry and Exit) using the following formula:

$$SCQ_d = Min\ (IPOC_d, IPRC_d, IPA_d)$$

where

$IPOC_d$ means the provisional IP Capacity quantity that should be classified as being for Storage use as specified by the IO to National Grid NTS for the relevant day for that User pursuant to the Storage Connection Agreement;

$IPRC_d$ means the quantity of the User's IP Registered Capacity on the relevant day excluding Existing Registered Holdings; and

IPA_d means the User's Storage UDQI or Storage UDQO for the relevant day.

For the avoidance of doubt, any capacity held by a User in excess of SCQ_d will not be subject to the storage Specific Capacity Discount.

Capacity Utilisation and Overruns

It is proposed that a User's IP Entry Capacity classified as Existing Available Holdings is not able to be utilised for storage at an Interconnector SCP.

It is proposed that in relation to a Day at an Interconnector SCP, NTS Exit (Flat) Overrun Charges are payable where:

- the User's Storage UDQO exceeds the User's Exit Storage Available Capacity (and the aggregate of all Users' Storage UDQO exceeds the sum of all Users' Exit Storage Available Capacity); and/or
- the User's Transportation UDQO exceeds the User's Exit Transportation Available Capacity (and the aggregate of all Users' Transportation UDQO exceeds the sum of all Users' Exit Transportation Available Capacity).

It is proposed that in respect of a User's NTS Entry Capacity at an IP for a day, a User will only be required to pay the higher of:

- a **System Entry Overrun Charge** in respect of the ASEP comprising the relevant IP and SCP determined as per TPD B2.12; and
- an **IP Storage Entry Overrun Charge** in respect of the ASEP comprising the relevant IP and SCP.

The IP Storage Entry Overrun Charge will be payable where the User's ASEP Entry IP Storage Allocation Quantity (i.e. withdrawal from storage) exceeds its ASEP Entry IP Storage Available Capacity Quantity. To determine this, the two values will be assessed as follows:

- ASEP IP Storage Available Capacity Quantity ($IPSAC_d$) is determined using the following formula:

$$IPSAC_d = Min\left(\sum IPOC_d, IPAC_d\right)$$

where:

∑ means the sum of the relevant quantities from all System Entry Points in the Aggregate System Entry Point;

$IPOC_d$ means the provisional Entry IP Capacity quantity that should be classified as being for Storage use as specified by an IO to National Grid NTS for the relevant day for that User; and

$IPAC_d$ means the quantity of the User's Entry IP Available Capacity at the Aggregate System Entry Point on the relevant day excluding quantities allocated via Existing Contracts.

- ASEP IP Storage Allocation Quantity ($IPSA_d$) is determined using the following formula:

$$IPSA_d = \sum SAQ_d$$

where

∑ means the sum of the User's Storage UDQIs from all System Entry Points in the Aggregate System Entry Point;

SAQ_d means the User's Storage UDQI at a [relevant System Entry Point].

The IP Storage overrun quantity is the amount by which the $IPSA_d$ exceeds $IPSAC_d$. The IP Storage Entry Overrun Charge is equal to the IP Storage overrun quantity multiplied by the values specified in TPD B2.13.3.

Capacity Payable Price

It is proposed that a User's Available Capacity Quantity will be allocated in the following order:

- Interruptible; then
- Firm.

It is proposed that the allocation of a User's Available Capacity Quantity (as specified above) will be applied to the individual 'usage components' in the following order:

- Storage; then
- Transportation.

Nominations

It is proposed that in respect of the storage service at a relevant Interconnector Storage Connection Point for each Day:

- Users will be required to submit separate DM Output Nominations in respect of the Storage Connection Point which constitutes a Connected System Exit Point (as per TPD C2.2.1(a));
- Users will be required to submit separate DM Input Nominations in respect of the Storage Connection Point which constitutes a System Entry Point (as per TPD C3.2.1); and
- the DM Output Nominations and DM Input Nominations submitted in line with the above requirements will be subject to the same Matching Procedures and Rules in place at the relevant IP as per EID C1.5 and described in EID C

It is proposed that in respect of the transportation service at a relevant Interconnector IP for each Day:

- Users will be required to submit separate DM Output Nominations in respect of the IP which constitutes a Connected System Exit Point (as per TPD C2.2.1(a) and EID C2);

- Users will be required to submit separate DM Input Nominations in respect of the IP which constitutes a System Entry Point (as per TPD C3.2.1); and
- for the avoidance of doubt, the DM Output Nominations and DM Input Nominations submitted to the above requirements will be subject to the Matching Procedures and Rules in place at the relevant IP as per EID C1.5.

It is proposed that any adjustments required to nominations as a consequence of the occurrence of an Exceptional Event as set out in EID C3.1 and C3.3 will applied via a proportionate adjustment of both a User's storage Gas Nomination and its transportation Gas Nomination.

It is proposed that in respect of Scheduling Charges at a relevant joint IP and Storage Connection Point for each Day:

- the determination of Input Scheduling Charges for each User at an Aggregate System Entry Point will take account of the following:
    - DM Input Nominations for both the Storage Connection Point and the IP will be included in the Scheduling Input Nomination Quantity described in TPD F3.2.1(a); and
    - the UDQIs for both the Storage Connection Point and the IP will be included in the Input Scheduling Quantity as described in TPD F3.2.1(b);
- the determination of Output Scheduling Charges for each User will be assessed for each (i.e. the Storage Connection Point and the IP will individually constitute Output Scheduling Points for the purposes of TPD F3.3.1(a)(ii)) and accordingly:
    - DM Output Nominations for the Storage Connection Point and the IP will be classified as separate Scheduling Output Nominated Quantities for the purposes of TPD F3.3.2(a)(i)); and
    - the UDQOs for the Storage Connection Point and the IP will be classified as separate Scheduling UDQOs for the purpose of TPD F3.3.2(b).

Allocations

It is proposed that in respect of the storage service at a relevant Interconnector Storage Connection Point for each Day:

- the Entry Point Daily Quantity Delivered will be provided to the Transporter by the IO (as the Storage Operator) as per the Measurement Provisions in the relevant Network Entry Provisions (as referred to in TPD I2.5.3);
- each relevant User must submit and Entry Allocation Statement as per TPD E2.1.2 which will determine each relevant User's UDQI;
- the CSEP Daily Quantity Offtaken will be determined in accordance with the CSEP Network Exit Provisions; and
- each relevant User must submit an Exit Allocation Statement as per TPD E3.2.2 which will determine each relevant User's UDQO.

It is proposed that in respect of the transportation service at a relevant Interconnector IP for each Day:

- the Measured Quantity (which is subject to the allocation provisions of EID E2 and E3) will exclude the Entry Point Daily Quantity Delivered and CSEP Daily Quantity Offtaken determined in respect of the storage service for the same Day;
- on an OBA day:

- the UDQI for each relevant User will be determined as per EID E2.1.1(b);
- the Entry Point Daily Quantity Delivered will be determined as per EID E2.1.1(c);
- the UDQO for each relevant User will be determined as per EID E2.2.1(b); and
- the CSEP Daily Quantity Offtaken will be determined as per EID E2.1.1(c).

- on a Non-OBA day:
  - the UDQI for each relevant User will be determined as per EID E3.2.2(a);
  - the Entry Point Daily Quantity Delivered will be determined as per EID E3.2.2(b);
  - the UDQI for each relevant User will be determined as per EID E3.2.2(c); and
  - the Entry Point Daily Quantity Delivered will be determined as per EID E3.2.2(d).

Charging

It is proposed that for each relevant User for each Day:

- in respect of the Transmission Services Capacity Reserve Price, the quantity SCQ_d will be subject to the Specific Capacity Discount for Storage (i.e. the discount is applied to the charge rate);
- in respect of the Transmission Services Revenue Recovery Charge, the quantity of Storage Available Capacity will be subject to the Specific Capacity Discount for Storage (i.e. the discount is applied to the charge rate); and
- General Non-Transmission Services Charges will not be payable in respect of the Storage Connection Point UDQI and UDQO.

Emergencies

It is proposed that for the purposes of TPD Q, Interconnectors which offer an additional Storage service are treated solely as an Interconnector.

6 Impacts & Other Considerations

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

None.

Consumer Impacts

Proposer's view:

Implementation will increase the range of commercial storage service available to GB shippers to optimise trading positions. Whilst no direct impacts are foreseen, the increased optionality and efficient use of existing assets should help consumers indirectly through reducing balancing costs and providing an additional buffer for short term price fluctuations, which would ultimately have an economic benefit for the consumer.

Consumer Impact Assessment	
Criteria	**Extent of Impact**
Which Consumer groups are affected?	Shippers would be the main beneficiary of the Modification and as such determining which consumer group would benefit cannot easily be done. Any additional benefits would be indirect through any possible reduced balancing costs.
What costs or benefits will pass through to them?	The benefit resulting from provision of additional capability for Shippers to manage their own balancing positions, could be passed on through to consumers, providing it is competitively priced. This will be determined by Shipper's contractual arrangements. Additional flexibility tools available to Shippers should mean National Grid as residual balancer, should have a lower requirement to intervene, thus improving efficiency. This may result in somewhat reduced balancing cost needing to be passed on through charges. This is likely to be at a low level of materiality.
When will these costs/benefits impact upon consumers?	Upon implementation, if utilised.
Are there any other Consumer Impacts?	none
General Market Assumptions as at December 2016 *(to underpin the Costs analysis)*	
Number of Domestic consumers	*21 million*
Number of non-domestic consumers <73,200 kWh/annum	*500,000*
Number of consumers between 73,200 and 732,000 kWh/annum	*250,000*
Number of very large consumers >732,000 kWh/annum	*26,000*

Some Workgroups participants commented that only a limited quantity of additional storage flexibility has been identified with this proposal and that the benefits identified by the proposer may at best be very marginal, if at all. A further observation was that there is no guarantee that implementation of the modification will lead to the additional storage being made available. A Workgroup Participant countered that although this proposal would facilitate other Interconnector operators to offer a similar service so the benefits might increase.

Cross Code Impacts

None. The scope of the new arrangements that need to established are limited to the UNC.

Workgroup Participants did not identify any further cross code impacts.

EU Code Impacts - Alignment with Retained EU Law

Proposer's view:

As a consequence of the UK's withdrawal from the European Union, the European Union (Withdrawal Agreement) Act 2020 has effectively incorporated into UK law those EU Regulations in force as at the end of the Implementation Period, therefore:

- the definition of 'Interconnector' in the EU regulations (as at that date) applies in the UK from 31st December 2020.

  Regulation 2018/1999 and Directive 2019/692 revised the definition of interconnector, which is now as follows:

  > *'**interconnector**' means a transmission line which crosses or spans a border between Member States for the purpose of connecting the national transmission system of those Member States or a transmission line between a Member State and a third country up to the territory of the Member States or the territorial sea of that Member State*;

  Article 3(2) of Regulation 2017/459 (network code on capacity allocation mechanisms in gas transmission systems) includes the following definition:

  > *'**interconnection point**' means a physical or virtual point connecting adjacent entry-exit systems or connecting an entry-exit system with an interconnector, in so far as these points are subject to booking procedures by network users*;

  In conclusion, the additional operation of an Interconnector as a Storage Facility and additional utilisation of the connection to the NTS as an entry/exit point for the purposes of storage does not conflict with any regulatory limitation placed on the Interconnector or its connection to the NTS.

- the definition of 'Storage Facility' in the EU regulations (as at that date) applies in the UK from 31st December 2020.

  The discount applied to capacity-based transmission tariffs described in Article 9(1) of Regulation 2017/460 (as amended by The Gas (Security of Supply and Network Codes) (Amendment) (EU Exit) Regulations 2019) applies in respect of a 'storage facility'. Regulation 715/2009 (as amended by The Electricity and Gas etc. (Amendment etc.) (EU Exit) Regulations 2019) defines a "**storage facility**" as:

  > *a facility used for the stocking of natural gas and owned or operated by a natural gas undertaking, including the part of LNG facilities used for storage but excluding the portion used for production operations, and excluding facilities reserved exclusively for transmission system operators in carrying out their functions*

  In conclusion, the additional operation of an Interconnector for the purposes of storage is consistent with the definition of Storage Facility as this additional storage service will be available for Shippers who wish to utilise this facility (i.e. it is not reserved exclusively for use by TSOs). Therefore, as a Storage Facility, the discount afforded to capacity-based transmission tariffs described in Article 9(1) of Regulation 2017/460 at such facilities are applicable.

Workgroup discussions

The Workgroup on 7 September considered the opinion provided by Interconnector relating to the question of whether the Gas Act or Gas Regulation prevails;

Gas Act Section 5(8)

> *"Gas Interconnector: any pipeline system as— (a) is situated at a place within the jurisdiction of Great Britain; and (b) subsists wholly or primarily for the purposes of the conveyance of gas (whether in both directions or in only one) between Great Britain and another country or territory"*

Regulation 715/2009 as amended by UK SI 2018/1286 and 2019/530:

> *"interconnector" (a) in relation to Great Britain, means a transmission line which crosses or spans a border between Great Britain and a member State, or between Great Britain and Northern Ireland, for the sole or main purpose of connecting the transmission systems of those countries or territories;*

Interconnector asserted that as retained EU law, the Gas Regulation is directly applicable meaning that the definition of 'Interconnector' in the Gas Regulation applies as a matter of English Law and therefore prevails over domestic legislation. This is addressed in Schedule 8, para 1 of the EU Withdrawal Act.

Some Workgroup participants disagreed with this interpretation and expressed concern that the legal basis on which the storage service is to be offered is unclear. A Workgroup participant had received different advice in correspondence with BEIS;

> *"The UK transposed Directive (EU) 2019/692 by making the Gas (Internal Markets) Regulations 2020 (SI 2020/625). The Regulations operated by amending other legislation, including the Gas Act 1986, and modifying the standard conditions of a gas interconnector licence. The Regulations included a provision to sunset some of its changes at the end of the transition period.*
>
> *Section 5(8) of the Gas Act 1986 defines "gas interconnector" for the purposes of Part 1 of the Act as:*
>
> *…so much of any pipeline system as—*
>
> *(a) is situated at a place within the jurisdiction of Great Britain; and*
>
> *(b) subsists wholly or primarily for the purposes of the conveyance of gas (whether in both directions or in only one) between Great Britain and another country or territory.*
>
> *This definition was inserted by the Energy Act 2004 and has not been amended (whether as part of transposing Directive (EU) 2019/692 or in relation to EU exit). Our assessment at the time was that the definition of interconnector that we had in UK domestic law was already broad enough to include third countries, so no amendments were necessary to transpose the Directive".*

Some Workgroup participants remained concerned that there appeared to be conflicting views on which legislation applies whilst recognised that the definition (in both the Gas Act and Gas Regulation) indicates that an Interconnector may provide services other than Transmission.

In respect of the proposition that the service will be classed as storage, the following comments have been received;

This definition was introduced by the Electricity and Gas (Internal Markets) Regulations 2011/274 and remains unchanged.

Definition of "storage facility" –

Section 48(1) Gas Act 1986 provides that:

"storage facility" means a facility in Great Britain (including the territorial sea adjacent to Great Britain and the sea in any area designated under section 1(7) of the Continental Shelf Act 1964) for either or both of the following—

(a) the storage in porous strata, or in cavities in strata, of gas which has been, or will be, conveyed in a pipeline system operated by the holder of a licence under section 7 or 7ZA;

(b) the storage of liquid gas which, if regasified, would be suitable for conveyance through pipes to premises in accordance with a licence under section 7,

but the reference in paragraph (b) to the storage of liquid gas does not include such temporary storage as is mentioned in the definition of "LNG import or export facility";

The comments from BEIS noted that this definition is different from the term identified as 'gas storage facility' in the proposal which appears to have been used for a particular purpose in the Gas (Exemptions) Order 2011 and is more limited in scope as it does not include gas in natural porous strata, which is covered by the term 'storage facility' in the Gas Act.

Some workgroup participants remained concerned that given the statutory definition of a storage facility in the Gas Act it was uncertain that the UNC could provide a different definition for the purposes of this service and therefore that the proposed discount might also be invalid.

The Workgroup on 7 October concluded that resolution of this question, and whether it affects the viability of the proposal, lay outside the competence of the Workgroup and may be better placed as a matter for Authority decision.

Central Systems Impacts

There will be impacts on Gemini and UK Link invoicing systems. These impacts are being assessed. The CDSP (Xoserve) has been consulted on all stages of development of this project and National Grid will continue to ensure this is the case.

Rough Order of Magnitude (ROM) Assessment
CDSP Change Proposal reference number XRN5334
ROM response date 23 September 2021

Cost estimate from CDSP	£605k - £730k and annual costs of £7k - £11k
Timescales	Subject to DSC change management committee approvals and prioritisation. Estimated at 28 weeks to 30 weeks for analysis to post-implementation support.

On 7 October the Workgroup considered the ROM and some Workgroups participants commented that the significant implementation cost for a limited quantity of storage that might be made available did not appear to be justified by the marginal benefits identified by the proposer.

7 Relevant Objectives

Impact of the modification on the Relevant Objectives:	
Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	Positive
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	Positive
c) Efficient discharge of the licensee's obligations.	None
d) Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	Positive
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards… are satisfied as respects the availability of gas to their domestic customers.	None
f) Promotion of efficiency in the implementation and administration of the Code.	None
g) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None

Proposer's view of how this Modification furthers the Standard Relevant Objectives:

Enabling Interconnectors to provide additional storage services will incentivise greater use of the NTS and provide Shippers will an additional service to assist with system balancing. This will support cost recovery over a wider customer and product base, hence leading to a more economic and efficient use of the system as per Relative Objective (a) and (b).

In addition, the service provides further balancing tools for Shippers which are subject to appropriate NTS charging arrangements. This will promote a level playing field through consistency of Shipper charges across the range of balancing services as per Relevant Objective (d). Such a service creates additional optionality for Shipper Users to accommodate temporary market fluctuations and provide assistance with balancing. These benefits help better facilitate the GB market's Security of Supply and have the potential to lower balancing costs.

Workgroup view of how this Modification furthers the Standard Relevant Objectives:

Relevant Objective a)

More Throughput

Some Workgroup Participants noted that if one assumes the additional storage option on the system would result in more throughput it would appear to be positive for Relevant Objective a). However, this

assumption does not appear to have any analysis to support it, so it is difficult to confirm positive impact for Relevant Objective a).

A Workgroup participant believes this proposal improves the economic operation of National Grid's pipeline system by utilising National Grid's available capacity for additional services noting Interconnectors have long periods when they are not utilised fully for transportation and thus can be used for short term storage services to GB shippers.

Cost Recovery

Some Workgroups Participants noted that the possible access to discounts associated with provision of a storage service (as per UNC 0729) may make it difficult to agree that the Modification will support cost recovery over a wider customer and product base, hence the Relevant Objective a) may not be impacted.

A Workgroup Participant did not agree with the assertions by the Proposer in regards to cost recovery because the storage being proposed in the Modification may affect the cost recovery calculations (there could be a case of under charging).

Security of Supply

A Workgroup Participant asked whether this Point could offer a service which would support GB Security of Supply through lowering the balancing cost. If the balancing cost cannot be lowered (for example because the access to the Storage Discount skews the calculations), then the Modification can't be considered to be supporting Security of Supply. No impact on Relevant Objective e).

Balancing

A Workgroup Participant highlighted that the Modification, if implemented, may provide an additional means for Shippers to access flexibility in balancing their portfolios, thereby reducing any intervention required by National Grid and thus providing a positive impact on Relevant Objective a).

Workgroup Participants expressed no views in relation to Relevant Objective b).

Effects on Other Stakeholders

A Workgroup Participant expressed the view that this Modification. if implemented, would have a detrimental impact on other providers of storage services, this would be negative for competition and thus for Relevant Objective d). The Modification may allow the Interconnector Operator to operate under the same commercial/UNC terms as other storage operators and may mean that they are not operating on a level playing field because they may carry fewer obligations.

A Workgroup Participant acknowledged that if the interconnector can offer more choice in a fair way then the Modification could be viewed to be increasing choice and thus furthering Relevant Objective d).

At the Workgroup meeting on 7 September a presentation was given setting out that the proposed operation of the service by INT would be in line with;

- *The commercial access regime as set out in section 19B of the Gas Act;*
- *Section 17D of the Petroleum Act 1998;*
- *Regulation EC 715/2009 as amended by UK SI 2018/1286 and 2019/530;*
- *The guidance provided by Ofgem to GB Storage Operators.*

The Workgroup participant asserted that these controls meant that the operation would be on a 'level playing field' basis.

The Workgroup was informed that one aspect on which it was not possible to treat an Interconnector in the same way as a Storage Facility is in participation in the Safety Monitor as a Storage Facility. This arises because an Interconnector will already be providing a role in times of gas supply emergencies in its capacity as an Interconnector. Therefore, in the interest of Security of Supply for the GB market it is more beneficial for the Safety Monitor to access the full technical capacity of the Interconnector pipeline than a restricted portion that falls under the Storage Service.

The Workgroup on 7 October was presented with an explanation of the directions that the Network Emergency Coordinator (NEC) would issue within stage 2 of a Gas Deficit Emergency (GDE), specifically comparing the directions relating to supplies of gas from Storage and those from Interconnector input. It was noted that both Storage and Interconnectors would be directed / encouraged at the same stage as set out in the table below. The equivalent arrangements for exit (demand) are shown for the purpose of completeness.

Connection	**NTS Entry (Supply)** **i.e. Interconnector Import and Storage Withdrawal**	
	Instruction / Request from Primary Transporter	**Timing**
Interconnector	Can only be **encouraged** to maximise delivery to NTS during Stage 2 of a Network Gas Supply Emergency (as gas source is off the GS(M)R network)	As part of '**Directing Supplies into the NTS**' phase (albeit as noted there is no power to *direct* , only encourage)
Storage	Can be **directed** to maximise delivery to NTS during Stage 2 of a Network Gas Supply Emergency	As part of '**Directing Supplies into the NTS**' phase
Connection	**NTS Exit (Demand)** **i.e. Interconnector Export and Storage Injection**	
	Instruction / Request from Primary Transporter	**Timing**
Interconnector	Can be **directed** to cease export (offtake) from the NTS during Stage 2 of a Network Gas Supply Emergency	As part of the **'Load Shedding**' phase Classed as 'interconnectors', directed to cease offtake before VLDMCs
Storage	Can be **directed** to cease injection (offtake) from the NTS during Stage 2 of a Network Gas Supply Emergency	As part of the **'Load Shedding'** phase Classed as 'VLDMCs', directed to cease offtake after Interconnectors

Notes - 'GS(M)R' is the Gas Safety (Management) Regulations 1996. 'VLDMCs' are Very Large Daily Metered Customers

Some Workgroup participants were concerned that this difference in treatment under times of system stress could mean that the commercial conditions were not in fact on a ‘level playing field’.

Impact of the modification on the Relevant Charging Methodology Objectives:	
Relevant Objective	Identified impact
a) Save in so far as paragraphs (aa) or (d) apply, that compliance with the charging methodology results in charges which reflect the costs incurred by the licensee in its transportation business;	Positive
aa) That, in so far as prices in respect of transportation arrangements are established by auction, either: (i) no reserve price is applied, or (ii) that reserve price is set at a level - (I) best calculated to promote efficiency and avoid undue preference in the supply of transportation services; and (II) best calculated to promote competition between gas suppliers and between gas shippers;	None
b) That, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;	Positive
c) That, so far as is consistent with sub-paragraphs (a) and (b), compliance with the charging methodology facilitates effective competition between gas shippers and between gas suppliers; and	Positive
d) That the charging methodology reflects any alternative arrangements put in place in accordance with a determination made by the Secretary of State under paragraph 2A(a) of Standard Special Condition A27 (Disposal of Assets).	None
e) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None

Implementation would not conflict with paragraphs 8, 9, 10 and 11 of Standard Condition 4B of the Transporter's Licence as it does not propose any changes to the Connection Charging Methodology.

Implementation would not conflict with paragraphs 2, 2A and 3 of Standard Condition 4B of the Transporter's Licence as it does not propose any changes to the process of the determination of Reserve Prices or the publication of transportation charges.

Regarding Relevant Charging Objective (a), the additional storage service at Interconnectors would be subject to the specific NTS charging arrangements applicable to other GB storage facilities. This is an accurate reflection of the fact that gas entering a GB storage facility is subsequently redelivered to the NTS.

The proposed change to the current Charging Methodology also takes account of the additional use of Interconnectors to offer a Storage Service and hence takes into account developments in the transportation business, as per Relevant Charging Objective (b).

By facilitating the increase in the options available to Users (for the avoidance of doubt, those in GB only) when seeking a storage service and ensuring that the appropriate transportation charging arrangements are in place for this, implementation better facilitates competition between those shippers (UNC Relevant Objective (d) and Relevant Charging Methodology Objective (c)). In addition, the proposed change ensures that all users of additional storage services offered by Interconnectors will incur consistent NTS transportation charges.

Workgroup view of how this Modification furthers the Relevant Charging Objectives:

Workgroup Participants views on Charging Relevant Objective a) cost recovery

Workgroup Participants noted that as at 05 August 2021 the draft legal text did not have any proposed changes to Section Y and therefore the workgroup did not need to consider the relevant charging objectives, however some Workgroup Participants felt that there had been a change in the transportation business in that the storage discount (in Section Y) would be available which would in turn change the allocation of charges between users of the system, thus there is an impact on Charging Relevant Objective b). Workgroup Participants have not yet seen any evidence of what the impact would be and thus cannot say whether this impact is positive nor negative.

Workgroup Participants considered that comments made above in relation to standard Relevant Objective d) should apply to Relevant Charging Objective c).

At the Workgroup meeting on 7 September analysis was provided on the effect on reserve prices for capacity. The analysis showed that in scenarios where 'new' capacity is required to fulfil the storage demand, each additional storage unit generates 20% of the Reserve Price in addition to the current expected revenue, bringing Transmission Services Reserve Price Rates down. In utilising current capacity, initially each unit moved results in an 80% decrease in revenue recovered due to the Storage discount. However, once demand exceeds the current FCC excluding Existing Contracts, there is no current capacity available to use for Storage and so new capacity must be purchased. For every unit of current capacity, four units of new capacity above the original FCC would be required to balance the revenue impacts.

A Workgroup participant wished it to be noted that the Storage Service proposed by the Interconnector Operator is for a maximum of 100GWh/ 8.7mcm/d on a DA/WD basis. This small capacity would mean that in practice the effect on capacity reserve prices would be negligible.

8 Implementation

No implementation timescales are proposed.

9 Legal Text

The Workgroup considered the Legal Text at Workgroup on 07 October 2021 and is satisfied that it meets the intent of the Solution.

Text Commentary

A commentary to the text has been provided by National Grid and is published alongside this report at: https://www.gasgovernance.co.uk/0761.

Text

Legal Text has been provided by National Grid and is published alongside this report at: https://www.gasgovernance.co.uk/0761.

10 Consultation

Panel invited representations from interested parties on 21 October 2021. All representations are encompassed within the Appended Representations section.

The following table provides a high-level summary of the representations. Of the 11 representations received 4 supported implementation, 1 offered qualified support, and 6 were not in support.

Representations were received from the following parties:			
Organisation	**Response**	**Relevant Objectives**	**Relevant Charging Methodology Objectives**
BBL Company V.O.F.	Support	a) Positive d) Positive	'No comments were supplied'
British Gas Trading Limited	Qualified Support	a) Positive b) Positive d) Positive	a) Positive b) Positive c) Positive
Energy UK	Oppose	a) None b) None d) None	a) None b) None c) None
Interconnector Limited	Support	a) Positive b) Positive d) Positive	a) Positive b) Positive c) Positive
National Grid NTS	Support	a) Positive b) Positive d) Positive	a) None b) None c) None
RWE Supply & Trading GmbH	Support	a) Positive b) Positive d) Positive	a) Positive b) Positive c) Positive
Storengy UK Limited	Oppose	a) None b) None d) Negative	a) Negative b) Negative c) Negative
ScottishPower	Oppose	a) None b) None d) None	a) Negative b) Negative c) Negative
SSE	Oppose	a) None b) None d) None	a) None b) None c) None
Underground Energy Storage Operators Ltd (UESO)	Oppose	a) None b) None d) None	a) Negative b) Negative c) Negative
Uniper	Oppose	a) None b) None d) None	a) None b) None c) None

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

Discussion

Consideration of the Relevant Objectives

Consideration of the Relevant Charging Methodology Objectives

Determinations

12 Recommendations

Panel Recommendation

Panel Members recommended:

- that Modification 0761 [should [not] be implemented.

13 Appended Representations

Representation – BBL Company V.O.F

Representation – British Gas Trading Limited

Representation – Energy UK

Representation – Interconnector Limited

Representation – National Grid NTS

Representation – RWE Supply & Trading GmbH

Representation – Scottish Power

Representation – SSE

Representation – Storengy UK Limited

Representation – Underground Energy Storage Operators Ltd (UESO)

Representation – Uniper

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Date
8 November 2021

Telephone
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Our reference
BBL VOF 21.075

Your reference

Subject
Response to consultation on UNC Modification Proposal 0761

Dear Joint Office,

In principle, BBL Company (BBLC) supports the proposal that an Interconnector pipeline could be used for the provision of short-term storage/balancing services through the utilisation of otherwise unused pipeline transportation capability.
BBLC agrees that such a service could result in increased utilisation of the relevant interconnector pipeline assets, and increase the throughput on the NTS, as gas is transferred into and out of the new service offering. This would further facilitate both the efficient operation of the relevant interconnector pipeline and the NTS.
In addition, the provision of additional storage and balancing services to shippers will increase the size of the market for such services thereby better facilitating competition.
As such, BBLC considers that the proposal furthers relevant objective (a) 'Efficient and economic operation of the pipe-line system' and (d) 'Securing of effective competition between relevant shippers'.

Yours sincerely,

Rudi Streuper
Commercial Manager

Joint Office of Gas Transporters

Representation - Draft Modification Report UNC 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Ricky Hill
Organisation:	British Gas Trading Limited
Date of Representation:	19 November 2021
Support or oppose implementation?	Qualified Support
Relevant Objective:	**a)** Positive **b)** Positive **d)** Positive
Relevant Charging Methodology Objective:	**a)** Positive **b)** Positive **c)** Positive

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

In principle, given that the pipeline transportation capability would otherwise remain unused, we support the proposal that INT could be used for the provision of short-term storage and balancing services. Providing these additional services would further facilitate the efficient operation of the interconnector pipeline and increase the size of the market for such services, thereby better facilitating competition. However, we do believe a lack of clarity remains around the legality of reclassifying a proportion of an interconnector's services as storage, especially given that the statutory definition of a storage facility in the Gas Act does not appear compatible with the proposed services. In this respect, we agree with the Workgroup that this would have to be clarified as part of the Authority's decision and as such our support is contingent on this outcome.

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

As soon as reasonably practicable.

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

We would not face any substantial costs associated with this Modification.

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 any legal points need to be considered which are relevant to 0761?

As we noted above, we share the concerns of the workgroup on the legal basis of the proposal, and in particular the fact that interconnectors, as pipelines do not meet the definition of a storage facility in Section 48(1) of Gas Act 1986. This will need to be assessed by the Authority when making a decision.

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

No comments other than those noted in the first paragraph

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

No comments other than those noted in the first paragraph

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

We do not envisage any significant impact on other available storage services, other than the fact it will evidently provide more competition in the market.

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 further comments

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

No further comments

Joint Office of Gas Transporters

Representation - Draft Modification Report UNC 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Julie Cox
Organisation:	Energy UK
Date of Representation:	18 November 2021
Support or oppose implementation?	Oppose
Relevant Objective:	**a)** None **b)** None **d)** None
Relevant Charging Methodology Objective:	**a)** None **b)** None **c)** None

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

The impact on relevant objectives is listed as none for all, since the legal basis of the proposal needs to be assessed first. We do not see how it can be legally implemented. However, if implemented the enabling proposal will lead to implementation costs being incurred whilst the availability and utilisation of any service offered are highly uncertain. Energy UK therefore cannot support this proposal.

The main reason Energy UK does not support this proposal is that interconnectors, as pipelines do not meet the definition of a storage facility in Section 48(1) of Gas Act 1986. This is included in the workgroup report and below:

This definition was introduced by the Electricity and Gas (Internal Markets) Regulations 2011/274 and remains unchanged.

Definition of “storage facility” – Section 48(1) Gas Act 1986 provides that:

“storage facility” means a facility in Great Britain (including the territorial sea adjacent to Great Britain and the sea in any area designated under section 1(7) of the Continental Shelf Act 1964) for either or both of the following—

(a) the storage in porous strata, or in cavities in strata, of gas which has been, or will be, conveyed in a pipeline system operated by the holder of a licence under section 7 or 7ZA;

(b) the storage of liquid gas which, if regasified, would be suitable for conveyance through pipes to premises in accordance with a licence under section 7,

but the reference in paragraph (b) to the storage of liquid gas does not include such temporary storage as is mentioned in the definition of "LNG import or export facility";

A legal view is needed as to whether the UNC can define a storage facility in a manner different to and inconsistent with the definition in the Gas Act. If a UNC definition can override a definition in primary legislation, further consideration will need to be given to the precedent this sets.

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

Energy UK does not support implementation

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

As a trade association 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 any legal points need to be considered which are relevant to 0761?

See comments under the reason for support or opposition

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

The system implementation costs seem high for a service that is yet to be fully defined, the volume and availability are uncertain. It is possible that the implementation costs could be incurred but the service offering never provided or if offered not utilised.

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

It is not clear whether, if implemented, this service would draw gas away from existing storage facilities leading to no overall increase in throughput or whether gas would be 'stored' in interconnector linepack rather than being traded, downward nominated or cashed out.

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

The table below presents the proposed IUK capacity of 8.7mcm for withdrawal, injection and working gas volume (WGV) as a percentage of existing storage facility parameters, using Ofgem published data[1].

	WGV	Withdrawal	Injection
Hornsea	3%	73%	290%
Hatfield Moor	12%	435%	435%
Humbly Grove	4%	124%	109%
Aldborough	4%	28%	30%
Holford	4%	40%	33%
Hill Top	15%	67%	67%
Stublach	2%	29%	29%
Total	**1%**	**7%**	**8%**

It is clear that the service proposed will form a not insubstantial fraction of gas storage injection and withdrawal capacity, whilst providing insignificant WGV and therefore limited net or zero contribution to supplies at times of high demand when the service at IUK may not be available. As such there may be an impact on the market for flexibility services, but absent any further details on the service and indication of the cost it is difficult to comment further.

We agree with Ofgem's comments in its UNC modification 0621 decision letter[2], that interconnectors compete with storage facilities for the provision of flexibility services. Whilst these comments were in a different context, we think they are relevant here.

> *We (Ofgem) note here that we do not currently consider there is sufficient rationale for a bidirectional interconnector discount. It is our view that, while bi-directional interconnectors do compete with storage facilities for flexible supply (and demand) in GB,* ***the use of bi-directional interconnectors is not the same as storage facilities****. While it could be argued that bi-directional interconnectors function in a similar manner to storage facilities, gas imported on bi-directional interconnectors onto the NTS is unlikely to be the same gas that was exported from the NTS along bi-directional interconnectors*.

We consider that there should be a level playing field between providers of flexibility services, but the proposal seems to leave interconnectors with less obligations than other storage facilities, which risks competition impacts, that Ofgem will need to assess.

[1] https://www.ofgem.gov.uk/sites/default/files/docs/2021/01/2021_gas_storage_data_0.pdf

[2] https://www.gasgovernance.co.uk/sites/default/files/ggf/page/2018-12/Ofgem%20Decision%20Letter%200621.pdf

We also note that the basis on which storage tariffs receive discounts is to avoid double counting of charges as it is the same gas returning to the system at a later date, as Ofgem notes above, this cannot be guaranteed for gas flowing to / from interconnectors

There are other ways in which interconnectors are not truly storage facilities in that they cannot offer operating margins services nor can import flows be directed as storage flows can at stage 2 of a gas deficit emergency.

We therefore conclude that the service proposed is a linepack service rather than a storage service and should not be eligible for discounted storage tariffs.

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.*

We note there was a discussion about whether or not the proposal should be assessed against the charging relevant objectives as no changes were proposed to section Y. We agree that the charging relevant objective are relevant as charging is a feature of the proposal, by including definitions in other parts of the proposed legal text.

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

Insert Text Here

Representation - Draft Modification Report UNC 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Pavanjit Dhesi
Organisation:	Interconnector Limited
Date of Representation:	19th November 2021
Support or oppose implementation?	Support
Relevant Objective:	**a)** Positive **b)** Positive **d)** Positive
Relevant Charging Methodology Objective:	**a)** Positive **b)** Positive **c)** Positive

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

Storage services are recognised as providing wide benefits to the market and consumers. These wider benefits have been recognised and reflected in the charging structure of the NTS. **This modification will enable additional storage services to be provided to the GB market and thus contribute to these recognised wider benefits at no additional infrastructure cost**. The dual status solution is critical to a level playing field in the provision of these services and replicates precedents elsewhere in Europe. **The interconnector storage services will increase competition and choice for shippers in acquiring storage flexibility services**, particularly when addressing short term fluctuations in the market. It therefore meets the key UNC relevant objectives (d), and also (c) of the charging methodology objective, by furthering competition between shippers. **It also provides an additional use for existing NTS (and interconnector) infrastructure at Bacton** which is, for periods, not fully utilised for transportation services. The potential for greater use of the NTS at Bacton therefore meets relevant objectives (a) and (b) of the UNC by furthering the efficient and economic operation of the pipeline system.

It is clear that, **without this solution, a barrier to entry will persist**. It will prevent GB shippers from acquiring access to an additional 100 GWh/day of fast cycle storage service

proposed by Interconnector Limited (INT) and potentially more (noting this is a generic solution and other eligible interconnectors could also offer a similar service in the future). We do not believe such a barrier to entry is in the interest of the GB market or consumers.

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

As soon as possible in order to offer this additional storage service to the GB market, increase competition in storage provision, and increase the utilisation potential of the Bacton NTS interconnection point (IP).

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

This will have a positive impact on INT, INT users and NTS Bacton users. INT has already invested in the development of this proposal and the future service offering because it is confident that the investment will be beneficial to the market.

INT will bear the further development and implementation costs of its commercial offering, (as a merchant asset without consumer underwriting).

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 any legal points need to be considered which are relevant to 0761?

INT has carried out a thorough analysis of the legal compliance of this solution and also the provision of storage services by an interconnector. This has included obtaining external counsel advice. Our analysis has been shared with the proposer and the working group and included in our own consultation on the INT storage service[1]. We also include as an Annex, the external counsel advice in relation to an interconnector operator's ability to provide a storage service under the current regulatory regime (see Annex 1).

The conclusion of this legal assessment is that the modification solution, and indeed the proposed INT storage service itself is compliant.

Dual storage/ transportation interconnection point precedent

Whilst recognising the dual status of the Bacton IP, as proposed, is new in the UNC, dual points already exist in other parts of Europe. For example, a dual purpose IP exists at the German/Netherlands border. The Etzel storage facility in Germany connects to both German and Dutch transmission systems. The IP provides storage services and the additional option to utilise the facility for transportation services between Germany and the

[1] See Annex 1 of INT's consultation letter at https://www.fluxys.com/en/products-services/empowering-you/customer-interactions/consultations-in-the-uk/2021---consultation-on-the-interconnector-storage-service.

Netherlands. A shipper using this IP makes an ex-ante decision as to the purpose of the flow (i.e. storage or transportation) with two accounts being maintained for each user; one for storage (attracting a storage discount) and the other for transportation (attracting the standard charges).

Consistent with the definition of an interconnector

The prevailing definition of an interconnector indicates that an interconnector may provide services other than Transmission. The below definition is taken from the Gas Regulation[2]:

"interconnector"

(a) in relation to Great Britain, means a transmission line which crosses or spans a border between Great Britain and a member State, or between Great Britain and Northern Ireland, for the sole or main purpose of connecting the transmission systems of those countries or territories;

Although section 5(8) of the Gas Act[3] sets out a similar definition of interconnector, post Brexit, we have been advised that the Gas Regulation (which is retained in domestic UK law[4]) definition of "interconnector" prevails over the definition set out in the Gas Act[5].

Consistent with the definition of a storage facility

Below is the prevailing definition of a Storage Facility as per the Gas Regulation:

"storage facility"

means a facility used for the stocking of natural gas and owned or operated by a natural gas undertaking, including the part of LNG facilities used for storage but excluding the portion used for production operations, and excluding facilities reserved exclusively for transmission system operators in carrying out their functions;

The latter half of the definition beginning "excluding facilities reserved…" refers to storage facilities which are reserved for the sole use of a TSO to carry out balancing and system stability actions, meaning that the storage facility is not available for third party use. This is confirmed in the interpretive note published by the European Commission[6]. INT does not require the exclusive use of the storage facility for carrying out its business and will make its services available to third parties.

Consistent with Licensing obligations

As the owner and operator of an asset used as an interconnector, INT holds a GB Gas Interconnector Licence. This licence contemplates that interconnectors may offer services other than transportation, including the provision of storage. This is by virtue of Standard Licence Condition 6 which requires an interconnector to keep separate accounts for the various activities undertaken;

[2] Regulation (EC) 715/2009 as amended by UK SI 2018/1286 and 2019/530
[3] Gas Act 1986 as amended from time to time
[4] Pursuant to section 3 of the European Union (Withdrawal) Act 2018
[5] Sections 5(1) to 5(3) 0f the European Union (Withdrawal) Act 2018.
[6] https://ec.europa.eu/energy/sites/ener/files/documents/2010_01_21_third-party_access_to_storage_facilities.pdf

"The licensee shall, in their internal accounting, keep separate accounts for each of their gas activities: interconnection; transmission (in the instance of an integrated transmission system, this will also include interconnection activities); distribution; storage;"

INT indeed will operate the INT storage service with clear separation between transportation and storage accounts, as well as separate contractual terms. Similar regimes are in place in other European countries, where the same company provides both transportation and storage services.

Consistent with the Exemption Regime under the Gas Act

Section 5.1 of the Gas Act outlines the activities that must be authorised by a licence. The activities that require a licence are as follows;

"(a) otherwise than by means of a gas interconnector conveys gas through pipes to any premises, or to a pipe-line system operated by a gas transporter;

(aa) participates in the operation of a gas interconnector;

(b) supplies to any premises gas which has been conveyed to those premises through pipes;

(c) arranges with a gas transporter for gas to be introduced into, conveyed by means of or taken out of a pipe-line system operated by that transporter; or

(d) provides a smart meter communication service,"

Participation in the operation of an interconnector requires a licence, which INT holds pursuant to section 7ZA of the Gas Act. It is clear that the conveyance of gas between an interconnector and a public gas transporter does not, pursuant to section 5.1(a) of the Gas Act require a licence.

Section 5.2 of the Gas Act provides class and named exemptions for the activities in Section 5.1. These exemptions are available and granted where the requirement to hold a licence would be excessive or onerous. Government guidance issued when the exemption regime was introduced specifically states that interconnector operators do not need a licence exemption to be able to convey gas into the NTS[7]:

"Facilities covered by a named exemption include the IUK Interconnector…We propose not to renew the exemption for Interconnector (UK) Limited (IUK) to convey gas from the Interconnector to a gas pipeline operated by a licensed gas transporter, as it is no longer required. The exemption was granted prior to the licensing of gas Interconnectors…[which enables] an Interconnector operator to convey gas into the gas network without the need for a licence exemption."[8]

Storage Operators have a class exemption under section 5.2 of the Gas Act. Without such an exemption, Storage Operators would require a Gas Transporter licence which would be unduly onerous - or in some cases impossible as many Storage Operators hold

[7] Quote taken from Page 4.

[8] Interconnector (UK) Limited registered a name change in June 2021 becoming Interconnector Limited. Resolution available at https://find-and-update.companyinformation.service.gov.uk/company/02989838/filing-history

Shipping Licences (as foreseen in The Gas (Exemptions) Order 2011). This is discussed in the same government guidance issued when the exemption regime was introduced (Section 9). In the case of the INT Storage Service, as conveyance of gas into the NTS from an interconnector does not require a license under section 5.1, Interconnector does not need an exemption from this section 5.1 so the provisions available under section 5.2 are not relevant.

Consistent with Market Access Rules

Although sitting outside, what we consider is the UNC consideration, we have, for completeness, included a review of the market access rules for INT providing these services.

INT is an independent and fully ownership unbundled operator and will offer all the storage capacity it makes available under the proposed INT storage service to the market. This is in line with INT's current business model for its transportation services which is negotiated Third Party Access ("nTPA"). INT is therefore not seeking an exemption from this regime for its proposed storage activities nor will it seek a minor facility exemption from section 19B of Gas Act Section 19B (which is an exemption that several GB Storage Facilities have the benefit of).

The provision of the storage service by INT will be in line with the requirements of the Gas Regulation, the commercial access regime as set out in the Gas Act[9]and the Petroleum Act[10] as well as following the guidance published by Ofgem for Storage Operators.

Ofgem's guidance includes the establishment of a Storage Services Agreement (SSA) which has to be consulted upon with market users. INT is currently consulting on the proposed SSA. The current regulatory framework along with the SSA will ensure that the INT storage service will be offered by objective, non-discriminatory and transparent mechanisms to the market.

Finally, as outlined in the proposed arrangements, the service will be short term when the interconnector is not being fully utilised for transportation services. Transportation services will continue to have priority and capacity will continue to be offered for transportation. This will ensure continued compliance with existing transportation obligations. The arrangements are thus designed in such a way to ensure no impact to cross border transportation services and flows.

Further details on the proposed commercial arrangements of this service can be viewed in the consultation documents published in INT's website[11].

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

The benefits to the GB market and shippers will outweigh any delivery costs in implementing this proposal.

[9] Section 19B of the Gas Act 1986
[10] Section 17D of the Petroleum Act 1998
[11] See link in footnote 1.

A new storage service contributing to the valuable short term flexibility needs of the GB market

Short term flexibility is frequently used in the GB market and plays a vital role in helping balance the market. It is also recognised within the approved framework that storage services provide wider benefits to the market, which justifies a significant NTS discount for these services. We note the Ofgem UNC727 decision[12] which increased the GB NTS storage discount to 80% noted on p3 that:

"Storage can improve the efficiency of system operation and reduce operating costs by providing additional pressure to the system. The Proposer argues that storage provides a benefit to the transmission system in terms of avoided investment in additional capacity. We agree that there is merit in these arguments. We consider that the proposed higher storage discount would facilitate the continued contribution of storage to the efficient and economic operation of the pipe-line system."

This solution enables a new 100 GWh/day fast cycle storage service to enter the market via INT and provide all these benefits using existing infrastructure. The INT storage service will have a higher injection and withdrawal capability than most of the other fast cycle storage providers, enhancing the options available for shippers. It will contribute to the efficiency of the system operation, and provide an additional use of existing infrastructure at Bacton (when it is not being fully used for transportation). It therefore furthers the efficient and economic operation of the pipeline system (relevant objectives (a) and (b)). These benefits can help better facilitate the GB market's security of supply and have the potential to lower balancing costs thus benefiting GB consumers. It should be noted that, as a generic solution (not exclusive to Interconnector Limited), there is also the potential for other eligible interconnectors to provide storage services, which can further increase competition and market benefits.

Enhanced competition

Facilitating the availability of additional short term storage capability connected to the NTS will increase competition and choice for market participants, thereby better facilitating competition between shippers using the different storage points and services. It therefore meets UNC relevant objectives (d), and also (c) of the charging methodology objective. It will provide shippers additional optionality in dealing with short term market fluctuations and balancing positions. A number of shippers that INT has spoken to have welcomed such an additional service.

The utilisation of INT for transportation varies, as a marginal flexibility source into the GB market. There can be periods where the Interconnector and consequently NTS Bacton IP capacity is not fully utilised for transportation. On average since GY-2018/19 there has been 292 days per year when transportation bookings of INT capacity was less than 60% of technical capacity and additional storage services could have comfortably been provided to the GB market. This indicates there will be a significant number of days in the year when this service can be offered and fully utilised by the GB market.

[12] Ofgem 18th December 2020 decision on UNC 727: Increasing the Storage Transmission Capacity Charge Discount to 80%: https://www.ofgem.gov.uk/publications/unc727-increasing-storage-transmission-capacity-charge-discount-80-decision

Table 1: INT storage availability

	# of Days >60% for BE to GB for transportation (A)	# of Days >60% for GB to BE transportation (B)	Days <60% in either flow direction = (365-(A+B))
GY-2018/19	90	92	183
GY-2019/20	0	32	333
GY-2020/21	1	5	359
			Average = 292 days a year INT can comfortably offer a storage service

The benefits to the GB market will far exceed any implementation costs

As was well documented in the UNC 727 process[13], Shippers can capture intrinsic value associated with market price spreads over the short term duration of the product. Both National Grid and shippers benefit from this as it provides assistance in balancing the network and contributes to dampening price volatility and thus delivers positive externalities. Storage services also help National Grid in terms of avoided investment in additional capacity and helps reduce its activity/costs associated with participation in the balancing market. This solution enables INT to offer a storage service contributing to these benefits. This fast cycle storage will also be available to the network close to demand. A study, by Baringa, on the benefits of the Interconnector storage service[14] is included in INT's own consultation material highlighting these benefits. All these benefits are very pertinent in relation to the current challenge of high NBP gas prices and UNC proposals/workshops which are seeking to improve GB energy balancing arrangements.

INT's analysis of 1-day price spreads in the period between October 2018 to September 2021, and accounting for days when the 1-day spread was positive (i.e. price tomorrow > price today), found that on average, relevant spreads were 3.8p/th – pointing towards increased volatility in the NBP market in the recent past. After allowing for National Grid's capacity costs plus Interconnector's energy related costs, this suggests an approximate market value >£5M for a 100GWh/d of Interconnector storage offered for ~100 days per year[15].

We have noted the rough order of magnitude (ROM) implementation cost provided by Xoserve in the draft working group report, and note it is not unusual for actual costs to be lower than the ROM. We do not believe, in reality, the implementation costs will be as high as £605 - £730k, given the changes needed are incremental to current arrangements,

[13] See the final UNC727 (Urgent) – "Increasing the Storage Transmission Capacity Charge Discount to 80%" modification report for example: https://www.gasgovernance.co.uk/sites/default/files/ggf/book/2020-07/Final%20Modification%20Report%200727%20%28Urgent%29%20v2.0.pdf

[14] The study can be found at: https://www.fluxys.com/en/products-services/empowering-you/customer-interactions/consultations-in-the-uk/2021---consultation-on-the-interconnector-storage-service

[15] The 100 days allows for periods when the 1-day spread was sufficiently high to cover assumed NGG and INT costs associated with the provision of this service, and INT transportation bookings in either flow direction was < 60%.

most of which are adopting existing storage point rules at Bacton. Even if this rough cost estimation did materialise however, the overall benefit to the GB market will still outweigh this implementation cost. As highlighted earlier, the INT commercial benefit estimation of exploiting 1-day price fluctuations is in excess of £5m per annum, which is considerably above this implementation cost without considering the wider benefits to the GB market. It is also noted this is an enduring generic solution, so benefits relative to cost will accrue over time and that, as a generic solution, there is also scope for other eligible interconnectors to offer storage services. These storage services will provide wider benefits to the GB market and increase competition.

The Baringa study also noted that the GB market's need for flexibility is likely to increase despite the expected fall in gas demand as GB transitions to Net Zero. UKCS has historically provided flexible swing gas to the market but these fields will decline reducing this flexibility provision. Furthermore on the demand side the increased use of intermittent renewable generation on the system increases the need and unpredictability of gas flexibility to the NTS system. INT's storage service will help the GB market address these challenges and therefore should be facilitated by this UNC modification change.

Additional revenue for the NTS Bacton IP and no tariff implications for other users of the NTS

It is also noted there is no material tariff charging implications for other users of the NTS from this solution. This has been confirmed in the analysis shared by National Grid in the working groups. The INT storage service provides an additional use for Bacton IP capacity when it is not being fully used for transportation. This can potentially positively contribute to additional National Grid NTS revenues generated at Bacton IP. If 100 GWh/day of capacity was purchased at the NTS Bacton IP for 100 days a year, this equates to potentially ~£2M additional NTS capacity revenue at the Bacton IP[16]. If this increases use of short term storage flexibility in the GB market (rather than competing for the same short term storage flexibility volumes), this can overall provide more capacity revenue and thereby contribute to dampening future capacity price rises benefiting all NTS users.

Service contributes to maintaining cross border infrastructure benefiting GB security of supply and market trading

Finally, the revenues this additional service generates will also help maintain interconnection infrastructure with its wider market integration and security of supply benefits to GB consumers. Noting interconnector assets at Bacton are merchant operators, the solution enables these assets to be used more efficiently. This will contribute to supporting the significant fixed costs associated with operating, maintaining the assets and maintaining a high degree of availability for the GB market consumers.

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

This will be an additional 100 GWh/day storage service added to a GB market with limited storage relative to other European markets. This service will be accessible for large parts of the year. The Baringa study has suggested the need for flexibility in the GB market is likely to increase as UKCS declines and offers less swing flexibility. It also suggested the

[16] Assuming 80% storage discount applies for these bookings.

increased use of intermittent renewable generation will also increases the need/ unpredictability of gas flexibility needs on the network. INT's storage service will help the GB market address these challenges and increase the likelihood of NTS Bacton capacity being utilised through an additional use. This would therefore suggest that this service should increase overall throughput onto the NTS network. Even in the worst case, where overall through put does not change, there would still be positive benefits through increased competition for the different users of GB storage points.

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

We do not believe there will be an impact on other available storage services other than some healthy competition for short term flexibility in parts of the year. It can also complement the wider range of storage services provided by these providers. This solution has no material tariff charging implications for other users of the NTS. Users of other storage services will not face higher NTS charges. This modification only seeks to allow interconnectors with storage services to operate on a level playing field and enable NTS shippers to access these different storage services on a level playing field.

What this solution does is provide an additional use for Bacton IP capacity when it is not being fully used for transportation. It positively impacts the GB market by increasing competition in the market for short term storage flexibility with all the benefits noted already in answering question 2. It therefore furthers effective competition between shippers at the difference storage points on the network. Increasing competition in the provision of GB storage services will benefit the GB market and shippers through competitive pressure on product pricing and services.

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

Interconnectors have the capability to store gas in the same manner as any other storage facility offering short term storage services. This UNC modification proposal enables NTS shippers seeking to use such storage services to be treated in a similar manner to other shippers using other storage points on the network with storage services connected there. The INT storage service will offer the same short term services of injecting, parking and withdrawing gas over short periods as these other storage providers.

This solution provides a level playing field in the NTS charging treatment of storage services provided by qualifying interconnectors and avoids the double charging of NTS users of this service. The solution is critical to facilitate this service and increase the range of commercial storage services available to GB shippers leading to greater competition in the market and associated wider market benefits.

Without the solution there will be a barrier to entry which is not in the interest of GB consumers.

Annex 1: External legal advice in relation to an interconnector operator's ability to provide a storage service under the current regulatory regime

(please see attached legal advice from Fieldfisher)

Memo

fieldfisher

To:	Mary Simmons
Copies:	Sarah Cooper Andrew Blair
From:	Hugo Lidbetter
Date:	11 November 2021
Our Ref:	HL6/HL6/UK01-025418-00119/99941554 v2

Advice relating to use of an interconnector as a storage facility

1. Request for advice

1.1 Interconnector is the operator of the Bacton/Zeebrugge interconnector and is currently consulting on the proposed implementation of a short term, fast cycle storage service as a secondary service to its transportation business (the "**Intended Use**").

1.2 You have asked us for advice in relation to an interconnector operator's ability to provide a storage service under the current regulatory regime. You have conducted a review of, amongst other things, the Gas Act[1] and Gas Regulation[2], and, in particular, consider the following issues to be relevant to your consultation:

(a) whether the definition of "storage facility" in the Gas Act is inconsistent with the Intended Use ("**Issue 1**");

(b) whether an interconnector operator would require an exemption from the requirement to hold a gas transporter licence pursuant to section 5.2 of the Gas Act (and in any event whether that is material to the primary issue of whether an interconnector can provide a storage service) ("**Issue 2**"); and

(c) whether the definition of "storage facility" in the Gas Regulation is consistent with the Intended Use and, if it is, whether that definition takes precedence over that set out in the Gas Act ("**Issue 3**").

1.3 We have set out our advice in relation to Issues 1 to 3, but have not otherwise conducted a wider review of the Gas Act or Gas Regulation for the purposes of advising on the compatibility of that regime with the Intended Use.

2. Issue 1: Gas Act definition

[1] Gas Act 1986

[2] Regulation (EC) 715/2009

2.1 Under Section 48(1) Gas Act 1986, storage facility is defined as3:

> [F783"storage facility" means a facility in Great Britain (including the territorial sea adjacent to Great Britain and the sea in any area designated under section 1(7) of the Continental Shelf Act 1964) for either or both of the following—
>
> (a) the storage in porous strata, or in cavities in strata, of gas which has been, or will be, conveyed in a pipeline system operated by the holder of a licence under section 7 or 7ZA;
>
> (b) the storage of liquid gas which, if regasified, would be suitable for conveyance through pipes to premises in accordance with a licence under section 7,
>
> but the reference in paragraph (b) to the storage of liquid gas does not include such temporary storage as is mentioned in the definition of "LNG import or export facility";;]

2.2 The Intended Use does not appear entirely consistent with the Gas Act definition. However, our view is that the definition is more likely intended to be descriptive (in referring to the means by which gas is stored) rather than determinative (i.e. intentionally exclusionary of other forms of storage). This is supported by the observation that, at the time of implementation of the definition, storage of gas would involve salt caverns or depleted gas fields, rather than other forms including linepack.

3. Issue 2: Licensing

3.1 We note that you have addressed Issue 2 in your Consultation Letter (dated 28 October 2021), where you conclude that the class and named exemptions in Section 5.2 of the Gas Act are not relevant because conveyance of gas into the NTS from an interconnector does not require a license under Section 5.1(a).

3.2 We agree with this analysis, particularly as the alternative is presumably that Interconnector would hold two licences. We note, in any event, that Standard Licence Condition 6 of the Gas Interconnector Licence anticipates a licensee exercising a range of activities, including storage, which suggests a licensee, under that licence, should not be limited only to the activity of interconnection.

4. Issue 3: Gas Regulation definition

4.1 The Gas Regulation (in its original form) does not define storage facility, although it incorporates the definitions contained in Article 2 of the Gas Directive[4]:

> (9) 'storage facility' means a facility used for the stocking of natural gas and owned and/or operated by a natural gas undertaking, including the part of LNG facilities used for storage but excluding the portion used for production operations, and excluding facilities reserved exclusively for transmission system operators in carrying out their functions;

4.2 We believe that this definition is consistent with the Intended Use, as it is focussed on the activity of storing gas, rather than the structure and physical characteristics of the facility in which that gas

3 This definition was inserted on 10.11.2011 through an amendment made by s.47(2)(b) of The Electricity and Gas (Internal Markets) Regulations 2011 (S.I. 2011/2704).

4 Directive 2009/73/EC, Article 2(9)

is stored. We note the intent behind the "excluding" part (relating to facilities reserved exclusively for transmission system operators) is addressed in your Consultation Letter.

4.3 The question then is to what extent the Gas Regulation applies to the Intended Use and whether it could be said to have primacy over the Gas Act definition (given both concern storage facilities).

4.4 Taking, first, storage facilities generally, the applicability of the Gas Regulation to storage facilities is clear from paragraph 7 of Schedule 4B of the Gas Act, which confirms that Articles 15, 17, 19, 20, 22 of the Gas Regulation apply to the owners of storage facilities. Those provisions are shown below (from paragraph (f)):

> *Owners of storage facilities*
>
> 7. The following are relevant provisions in relation to an owner of a storage facility—
>
> (a) section 8R(2), (3), (4), (6) and (7);
>
> (b) section 11A(2);
>
> (c) section 11C;
>
> (d) section 19B(1), (3), (3A), (3B), (7) and (11);
>
> (e) section 19E(2) and (3);
>
> (f) in the Gas Regulation—
>
> (i) Article 15 (duties relating to third-party access services),
>
> (ii) Article 17 (duties relating to capacity allocation and congestion management),
>
> (iii) Article 19 (transparency requirements concerning storage facilities),
>
> (iv) Article 20 (duty to keep records),
>
> (v) Article 22 (duties relating to trading of capacity rights).

Having determined the relevance of the Gas Regulation to storage facilities generally, the issue then is to what extent the definition of storage facilities encompasses the Intended Use (and so whether the Gas Regulation applies to the Intended Use). As we have set out above, we consider that the definition of storage facility in the Gas Regulation is compatible with the Intended Use.

4.5 The Gas Regulation, being an EU regulation, was directly applicable in domestic law.[5] In other words, it had effect in UK law without the need for specific domestic implementing legislation.[6] EU law ceased to apply to the UK at 11pm on 31st December 2020 – known as IP completion day ("IPCD").[7] On IPCD the Gas Regulation was incorporated into domestic law by virtue of Section 3 of the European Union (Withdrawal) Act 2018 (the "EUWA") as direct EU legislation. Direct EU legislation forms part of retained EU law.[8]

[5] See Article 288 of the Treaty on the Functioning of the European Union, which states: "A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States."

[6] It was implemented through the operation of section 2(1) of the European Communities Act 1972. Section 2(1) allowed EU law to "flow" directly into UK law without the need for further, specific implementing legislation.

[7] The UK left the EU on 31st January 2020. However, Part 4 of the EU-UK Withdrawal Agreement provided for an implementation or transition period. During this period, EU law continued to apply to the UK (subject to limited exceptions) as if it was still a Member State.

[8] See the definition in section 6(7) of the EUWA.

> **3 Incorporation of direct EU legislation**
>
> (1) Direct EU legislation, so far as operative immediately before [F1 IP completion day], forms part of domestic law on and after [F1 IP completion day].
>
> (2) In this Act "direct EU legislation" means—
>
> (a) any EU regulation, EU decision or EU tertiary legislation, as it has effect in EU law immediately before [F2 IP completion day] and so far as—

4.6 Before IPCD, if there was a conflict between directly applicable EU law (in this case, the Gas Regulation) and any domestic legislation (here, the Gas Act), the EU legislation took precedence due to the principle of the supremacy of EU law. The starting point after IPCD is that this principle still applies where there is a conflict between direct EU legislation and domestic law which dates from before IPCD (see section 5(1) and (2) of the EUWA).[9] Where retained EU law has been modified (for example, where it has been amended using the power in section 8[10] of the EUWA) the principle of the supremacy of EU law can continue to apply, where that is consistent with the intention of the modification. In other words, the Gas Regulation can continue to have supremacy over the Gas Act, even where the Gas Regulation has been amended (see section 5(3) of the EUWA).

> **5 Exceptions to savings and incorporation**
>
> (1) The principle of the supremacy of EU law does not apply to any enactment or rule of law passed or made on or after [F1 IP completion day].
>
> (2) Accordingly, the principle of the supremacy of EU law continues to apply on or after [F1 IP completion day] so far as relevant to the interpretation, disapplication or quashing of any enactment or rule of law passed or made before [F1 IP completion day].
>
> (3) Subsection (1) does not prevent the principle of the supremacy of EU law from applying to a modification made on or after [F1 IP completion day] of any enactment or rule of law passed or made before [F1 IP completion day] if the application of the principle is consistent with the intention of the modification.

4.7 The Gas Regulation was amended by Reg 151 of the Electricity and Gas etc. (Amendment etc.) (EU Exit) Regulations 2019 (the "Brexit Regs),[11] to add the following definition of "storage facility" to Article 2 of the Gas Regulation (to come into effect after IPCD):

> "storage facility" means a facility used for the stocking of natural gas and owned or operated by a natural gas undertaking, including the part of LNG facilities used for storage but excluding the portion used for production operations, and excluding facilities reserved exclusively for transmission system operators in carrying out their functions;

4.8 There is nothing to suggest that the addition of the definition of "storage facility" should displace the principle of the supremacy of EU law. Therefore our view is that the definition in the Gas Regulation should have primacy when considering the Intended Use:

(a) the Gas Regulation has primacy over the Gas Act where there is a conflict between them, as a result of section 5(1) and (2) of the EUWA; and

(b) there is nothing in the insertion of the definition of "storage facility" which suggests that the principle of the supremacy of EU law no longer applies. Rather, the introduction of this new definition into the Gas Regulation should be taken as a clear indication that this

[9] Section 5(1) and (2) should be read together. They are intended to make a relatively simple proposition: after IPCD, the normal rules of implied repeal apply. New Acts of Parliament take precedence over all earlier legislation. However, domestic legislation which pre-dates IPCD should still be read as it would have been prior to IPCD, as being subject to the principle of the supremacy of EU law. See Duhs, E. and Rao, I. (2021). *Retained EU law: a practical guide*. London: The Law Society, Chapter 14.

[10] The power can be used to prevent, remedy or mitigate any failure of retained EU law to operate effectively or any other deficiency in relation EU law arising from the UK's withdrawal from the EU. See section 8(1) of the EUWA and Duhs, E. and Rao, I. (2021). *Retained EU law: a practical guide*. London: The Law Society, Chapter 17.

[11] These regulations were made using the power in section 8(1) of the EUWA.

definition of storage facility was intended to prevail and, in any event, if there had been an intention to preserve the original Gas Act definition, that could have been substituted into the Gas Regulation in place of the one that originally appeared in the Gas Directive. Instead, the definition has been restated by virtue of the amendments made under the Brexit Regs.

Yours sincerely,

Hugo Lidbetter
Partner

Representation - Draft Modification Report UNC 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Phil Lucas
Organisation:	National Grid NTS
Date of Representation:	19th November 2021
Support or oppose implementation?	Support
Relevant Objective:	**a)** Positive **b)** Positive **d)** Positive
Relevant Charging Methodology Objective:	**a)** None **b)** None **c)** None

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

As the proposer, National Grid NTS ('National Grid') supports the implementation of this Modification Proposal.

Modification of the UNC to facilitate the commercial operation of additional storage services available for use by Shippers on the NTS will increase the storage options available to them. In principle, this will have a positive impact on the securing of effective competition between relevant Shippers (Relevant Objective (d)). In the process of developing these arrangements, National Grid has sought to ensure that, as far as possible, they mirror those in place for 'conventional' storage facilities connected to the NTS hence providing a level playing field for the operators of such facilities in respect of the services they are able to offer to Shipper Users of the NTS.

Increasing the options available to a Shipper to minimise any imbalance between its supply and demand (via the availability of additional short-term storage services) may reduce the likelihood of National Grid needing to take balancing actions (as Residual Balancer), or reduce the volumes associated with such actions. If this were the case, implementation could be assessed as having a positive impact on Relevant Objective (a).

Whilst acknowledging that the commercial arrangements proposed *interact* with the NTS Charging Methodology (to the extent that a specific discount is applicable to the Transmission Services charge applied to capacity categorised as 'storage' and the disapplication of General Non-Transmission Services to storage flows), it is nevertheless the case that there is no *change* proposed to the NTS Transportation Charging Methodology itself as set out in TPD section Y Part A-I. On this basis, we have concluded that if it is accepted that Interconnectors can legitimately provide an additional storage service, there is no impact on the Relevant Charging Methodology Objectives.

Implementation:

As set out in the Draft Modification Report (DMR), initial assessment of the changes needed to the central systems to deliver this Modification indicate a minimum lead time of 28-30 weeks for analysis through to implementation. However, as also set out in the DMR, this change would be subject to DSC Change Management Committee governance.

In the event that Ofgem direct that this Proposal be implemented, National Grid would work with the DSC Change Management Committee and the CDSP to identify an appropriate implementation date which would be communicated to industry by the Joint Office.

Impacts and Costs:

Initial assessment of the changes necessary to central systems estimate the implementation costs being in the region of £605,000 to £730,000, with additional annual costs of up to £11,000.

As the commercial arrangements in the solution will be accessible (subject to certain requirements) in respect of any Interconnector that is able to physically flow in both directions, National Grid will incur the costs of making the required changes to central systems and processes.

Legal Text:

National Grid is satisfied that the legal text it has provided will deliver the intent of the solution.

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

Q1. Do any legal points need to be considered which are relevant to 0761?

We note the range of views expressed in the Workgroup on this topic including those expressed by Interconnector Ltd.

We understand that Interconnector Ltd's legal view is that no licence, beyond its existing licence to operate a gas interconnector, is required in order for it to operate as a gas storage facility. National Grid's assessment of the legislative and regulatory framework

relevant to this Proposal is that it is possible the Gas Act is not intended to remove the requirement for a separate/additional licence to operate storage but that the position taken by Interconnector Ltd is a rational one.

Our assessment also concluded that there were no explicit provisions *permitting* an interconnector providing an additional storage service. This is perhaps understandable given that as noted in the Proposal, these would be the first 'dual usage' points on the NTS.

In conclusion, we believe that this warrants delivery of the Final Modification Report (for this Proposal) to the Authority for a decision.

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

Whilst the benefits *in principle* relate to the provision of additional choice of storage services and the consequential benefit to competition in the provision of these services, it is difficult to assign a financial value to this benefit in absence of information regarding take-up of this new service and the cost of that service relative to other storage providers.

The delivery cost incurred by making the necessary changes to central systems are set out in the DMR (and above in this representation) noting that at this stage, it is an estimate based on the requirements set out in the solution. In the event of implementation, as with all such changes National Grid will work with the relevant stakeholders to ensure that the change is delivered in the most efficient and economic manner possible.

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

The potential for additional throughput is dependant upon whether Shippers utilise Interconnector Storage as an alternative to other Storage providers or in addition to them, and National Grid has no knowledge of which of these two potential outcomes is likely to be the case.

In order to inform its charge setting processes, National Grid will periodically engage with any Interconnector Operator offering an additional storage service to assess the impacts of expected aggregate storage flows and capacity levels in the forthcoming tariff period. This purpose of this is to set charges at rates which seek to minimise any difference between allowed revenue and actual revenue collected in this forthcoming tariff period.

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

As set out above, in respect of the commercial environment set out in the UNC, we have sought to replicate the arrangements in place for conventional storage facilities as far as possible. If this Proposal were implemented, there would be some minor differences in the UNC arrangements between an Interconnector-based storage service when compared with operation of a conventional storage service but we do not believe these would be sufficiently material to generate a competitive advantage of one over the other.

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

Not applicable

Joint Office of Gas Transporters

Representation - Draft Modification Report UNC 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Lauren Jauss
Organisation:	RWE Supply & Trading GmbH
Date of Representation:	19 November 2021
Support or oppose implementation?	Support
Relevant Objective:	**a)** Positive **b)** Positive **d)** Positive
Relevant Charging Methodology Objective:	**a)** Positive **b)** Positive **c)** Positive

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

We support the use of implicit storage capabilities of interconnectors in principle because we believe this could provide a valued service in otherwise unused capacity to help manage short term gas supply and demand variability. Whilst the estimated effective working gas volumes appear to be very small compared with existing storage facilities, the extremely fast churn rate could result in very high utilisation, with many multiples of the working gas volume effectively injected and withdrawn each year. However, we note that the estimated value of the service is very uncertain as it will be dependent on a variable level of available storage capacity.

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

No comment

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

No comment

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

No comment

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

Q1. Do any legal points need to be considered which are relevant to 0761?

We agree with the workgroup report that a legal review is required to confirm that the proposal is compliant with the Gas Act and EU Regulations.

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

As described above, we believe this could provide a valued service but it is not possible to quantify at this stage due to the high degree of uncertainty in available storage volumes.

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

We anticipate that in many instances the rate and/or timing of gas entering and exiting the transmission system will simply be adjusted, but in other cases some volumes of gas may exit the transmission system and never fully exported but rather re-enter the NTS later on in the same manner as existing storage facilities.

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

The introduction of this new type of storage facility may increase competition in the storage sector, but we expect that the demand for flexibility such as fast churn storage will increase over the coming years as gas demand becomes increasingly volatile on a day to day basis.

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 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Gerry Hoggan
Organisation:	Scottish Power
Date of Representation:	19th November 2021
Support or oppose implementation?	Oppose
Relevant Objective:	**a)** None **b)** None **d)** None
Relevant Charging Methodology Objective:	**a)** Negative **b)** Negative **c)** Negative

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

We are concerned that the service proposed does not align, and is inconsistent, with the statutory definition of a storage facility as defined within S.48(1) of the Gas Act 1986, that definition having been inserted by the Electricity and Gas (Internal Markets) Regulations 2011/274 and referenced within the Draft Modification Report. The determination of this question is central to this proposal.

Whereas the additional flexibility that the proposed service offers may be welcome, nonetheless, again as referenced within the Workgroup Report, it clearly has attributes that are distinct from a gas storage facility. Those differing characteristics are such as not to justify it being categorised as a gas storage facility and the resultant application of the particular charging arrangements that apply to gas storage.

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

We would not support implementation in the absence of some authoritative legal statement regarding the definition of the proposed service.

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?*

We have not conducted a review of the legal text

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

Q1. Do any legal points need to be considered which are relevant to 0761?

See above and the need for an authoritative legal statement regarding the definition of the proposed service

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

It is difficult to form a view on costs and benefits on the basis of the high-level estimates provided to this point. Moreover, there remain uncertainties over service availability and related volumes that makes any assessment problematical.

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

It is not clear to us whether this service may still be offered without the attendant discounted transportation charges that would flow from implementation.

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

We believe that there may well be an impact on other available storage services if the projected volumes of the new service were to materialise. We would hope and expect Ofgem to conduct a detailed assessment of the impact, taking account of the differing characteristics of the two services and whether the case has been made for the new service benefitting from the additional charging discounts afforded to storage facilities.

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

None

Representation - Draft Modification Report UNC 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Jeff Chandler
Organisation:	SSE
Date of Representation:	19/11/21
Support or oppose implementation?	Oppose
Relevant Objective:	**a)** None **b)** None **d)** None
Relevant Charging Methodology Objective:	**a)** None **b)** None **c)** None

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

SSE does not support the modification as we do not see how this modification can be legally implemented, as the UNC will try and define an Interconnector as a storage facility, counter to the definition in primary legislation of the Gas Act. Interconnectors, as pipelines do not meet the definition of a storage facility in Section 48(1) of Gas Act 1986:

“storage facility” means a facility in Great Britain (including the territorial sea adjacent to Great Britain and the sea in any area designated under section 1(7) of the Continental Shelf Act 1964) for either or both of the following—

(a) the storage in porous strata, or in cavities in strata, of gas which has been, or will be, conveyed in a pipeline system operated by the holder of a licence under section 7 or 7ZA;

(b) the storage of liquid gas which, if regasified, would be suitable for conveyance through pipes to premises in accordance with a licence under section 7,

but the reference in paragraph (b) to the storage of liquid gas does not include such temporary storage as is mentioned in the definition of “LNG import or export facility”;

This definition was introduced by the Electricity and Gas (Internal Markets) Regulations 2011/274 and remains unchanged post Brexit.

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

Not supportive of implementation.

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

None identified

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 any legal points need to be considered which are relevant to 0761?

Yes, see the main point above on conflict with the Gas Act definition of storage.

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

If implemented the enabling proposal will lead to implementation costs being incurred whilst the availability and utilisation of any service offered are highly uncertain. SSE therefore cannot support this proposal.

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

Not possible to guarantee additional volumes.

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

The table below presents the proposed IUK capacity of 8.7mcm for withdrawal, injection and working gas volume (WGV) as a percentage of existing storage facility parameters, using Ofgem published data[1].

	WGV	Withdrawal	Injection

[1] https://www.ofgem.gov.uk/sites/default/files/docs/2021/01/2021_gas_storage_data_0.pdf

Hornsea	3%	73%	290%
Hatfield Moor	12%	435%	435%
Humbly Grove	4%	124%	109%
Aldborough	4%	28%	30%
Holford	4%	40%	33%
Hill Top	15%	67%	67%
Stublach	2%	29%	29%
Total	**1%**	**7%**	**8%**

The service proposed will form a significant fraction of gas storage injection and withdrawal capacity, whilst providing low Working Gas Volume and therefore close to net zero contribution to supplies at times of high demand. There may be an impact on the market for flexibility services, but without further details on the cost of the servce it is difficult to comment further.

We agree with Ofgem's comments in its UNC modification 0621 decision letter[2], that interconnectors compete with storage facilities for the provision of flexibility services. Whilst these comments were in a different context, we think they are relevant here.

> *We (Ofgem) note here that we do not currently consider there is sufficient rationale for a bidirectional interconnector discount. It is our view that, while bi-directional interconnectors do compete with storage facilities for flexible supply (and demand) in GB,* ***the use of bi-directional interconnectors is not the same as storage facilities. While it could be argued that bi-directional interconnectors function in a similar manner to storage facilities, gas imported on bi-directional interconnectors onto the NTS is unlikely to be the same gas that was exported from the NTS along bi-directional interconnectors***.

The basis on which storage tariffs receive discounts is to avoid double counting of charges as it is the same gas returning to the system at a later date, as Ofgem notes above, this cannot be guaranteed for gas flowing to / from interconnectors.

There are other ways in which interconnectors are not truly storage facilities in that they cannot offer operating margins services nor can import flows be directed as storage flows can at stage 2 of a gas deficit emergency. Therefore, the proposal seems to leave interconnectors with less obligations than other storage facilities, which risks competition impacts, that Ofgem may need to assess.

[2] https://www.gasgovernance.co.uk/sites/default/files/ggf/page/2018-12/Ofgem%20Decision%20Letter%200621.pdf

Hence,the service proposed is a linepack service rather than a storage service and should not be eligible for discounted storage tariffs.

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.*

N/A

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

N/A

Representation - Draft Modification Report UNC 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Alex Nield
Organisation:	Storengy UK Limited
Date of Representation:	19th November 2021
Support or oppose implementation?	Oppose
Relevant Objective:	**a)** None **b)** None **d)** Negative
Relevant Charging Methodology Objective:	**a)** Negative **b)** Negative **c)** Negative

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

Storengy UK welcomes the intention of proposers to provide additional flexibility to the UK market. However, we oppose the proposals in their current format as offering additional 'storage' services, as we do not believe that these services have the legal characteristics to be classified as storage services or the operator as a storage facility operator. The service appears to be more aligned with linepack services, and therefore should be classified and assessed differently.

Storengy UK also does not believe that the proposals could be implemented under the current legislation, and would welcome further investigation into the legal definitions of storage services and facilities, as well as the legal feasibility of these services being offered in the same facility as another service.

Storengy UK also has significant concerns in the monitoring and assessment of the two services being proposed to be provided by Interconnectors, as we do not believe that the current proposals include enough clarity for gas flows and nominations for the two services to be clearly defined and distinct.

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

Storengy UK does not believe that this proposal can be implemented under current legislation. We recommend further investigation into this, and further changes to legislation prior to any proposed implementation.

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

Storengy UK welcomes increases in flexibility for the UK market, and therefore welcomes additional services to the industry. However, we believe that the service on offer is different to current gas storage services, and therefore should be categorised as a linepack service.

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

Storengy UK has no comment on the legal text itself, however, we do not believe that this service can be classified as 'gas storage' or that the Interconnector can be classified as a 'storage facility'.

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

Q1. Do any legal points need to be considered which are relevant to 0761?

Yes, Storengy UK believe that further assessment of the categorisation of this service is required. This is especially in light of the legal definition of storage facilities and services, for which we believe that this service has very different characteristics and should therefore be treated as a linepack service.

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

The cost estimates for this solution are currently estimated to be extremely high at up to £730k plus £11k annual costs. This seems a large cost risk for the industry for a service that is still not clearly defined, and may have minimal utilisation. As such, this may simply add further unnecessary costs for the industry, and ultimately the end consumers.

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

Due to the nature of two services sharing limited capacity at an NTS connection point, and the size of the service currently suggested in proposals, Storengy UK does not believe that this will have a significant effect on overall NTS throughput volumes.

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

Storengy UK believes that categorising the new service as 'gas storage' when it appears to be closer to a linepack service, will dilute the value added to the network by true gas storage providers in assessing operational benefits and industry charges. This is likely to create issues in assessing the impacts for gas storage providers in any future industry

changes, with the potential for analysis and information to be significantly distorted, with decisions made on information that may not reflect the vast majority of UK gas storage operators.

An example of this may be any future application of charging discounts and exemptions for storage facilities, where a new linepack service may offer very different characteristics and impacts than a true gas storage provider.

Although this new service may initially be small, the potential for setting a precedent for other industry participants to offer services with similar linepack characteristics may present a significant problem for this sector of the industry, and potentially add further threats to the ongoing operation and existence of true gas storage facilities.

As a result of the points above, Storengy UK does not believe that the new interconnector service should be classified as 'gas storage', and should this service come into effect then it should be classified under another distinct category for this and similar services. As a result, we do not believe that the new service should qualify for any storage charge discounts or exemptions, and should be assessed on separate grounds as a linepack service.

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.*

Storengy UK believes that further investigation on the classification of this service as 'gas storage' should be carried out, as we do not believe that this service carries significant similarities to current gas storage services to be categorised and treated in the same way.

Storengy UK would also welcome further development and assessment of the monitoring of the proposed new Interconnector service. Under current plans, many assessments of the categorisation of gas flows between the new service and the existing gas transport service seem be take place after the day in which the gas was flowed, leaving significant scope for errors, misallocations, or adjustments of the figures. We believe that the service should be monitored far more closely within day, to ensure that gas flows and nominations are correctly allocated between the two services, and ultimately the correct network charges applied.

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

Storengy UK welcome the proposals to monitor and assess two services at the same facility as two very separate services, and the proposal to categorise the NTS connection point as a 'dual usage' point. We believe that for the services to be properly monitored and assessed then any activity carried out for each of the services needs to be very distinct and clearly defined, and that this will aid this approach.

Representation - Draft Modification Report UNC 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Nick Wye (Chair)
Organisation:	Underground Energy Storage Operators Ltd
Date of Representation:	4 November 2021
Support or oppose implementation?	Oppose
Relevant Objective:	**a)** None **b)** None **d)** None
Relevant Charging Methodology Objective:	**a)** Negative **b)** Negative **c)** Negative

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

In principle we support the intention of the Proposer to offer linepack services to UK Shippers, however, we are concerned that the contention that the services can be categorised as storage services, and as such align with the requirements to be considered as a Storage Facility, is not clear. According to the Proposer, the service to be offered, and in particular the volume of capacity to be offered, will vary day by day, being dependent on the utilisation of the interconnector in its principal transportation service. This infers that the service is a linepack service and does not align with what is generally understood to be a Storage Facility, where the capacities are pre-determined and independent of other factors. As set out in the workgroup report, the definition of storage facility as laid down in the Gas Act suggests that the classification of a pipeline linepack service is not considered to be a storage facility.

Further, we are not convinced that the precedent cited by the Proposer (the Etzel storage facility) can be referred to in this manner. In this case the facility is a storage facility (its primary purpose) which allows for a transportation service to be accessed by Users (its secondary purpose). The definition of a storage facility in the Gas Act does not appear to preclude the offering of transportation services, however, given the specific requirement as to the physical nature of a storage facility it does not offer itself to

operating in the way intended in this proposal i.e a pipeline providing transportation services while a changing (daily) proportion of it is classified as a storage facility.

For this reason, although we welcome the roll-out of the proposed linepack services, we are not convinced that for the purposes of the UNC, that the services should be treated as storage and benefit from the storage related charging discounts

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

No comment

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

No comment

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

No comment

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

Q1. Do any legal points need to be considered which are relevant to 0761?

As set out in the workgroup report and in this response, a review of the legal definition of a storage facility needs to be carried out.

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

We note that the cost estimates for implementation are quoted to be up to £730k plus £11k annual costs. These figures should be considered alongside the revenue "not recovered" due to the application of the storage discounts.

At this stage, IUK has not provided any details around the service provision, beyond a high-level summary, making it difficult to assess the wider benefits to the market. On this basis, it is difficult to come to any firm conclusions, beyond that consumers will contribute an addition £730k plus for a service, as well as incurring increases in wider transmission charges (albeit small), which provides little or no perceivable benefit.

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

It is not clear as to whether IUK would offer this service without this modification being implemented.

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

Given the forecast volumes detailed by the Proposer of up to 8.7 mcm/d then we would anticipate that there may be an impact on other storage services given this constitutes around 7% of total gas storage deliverability. As stated earlier, although USEO welcomes new sources of flexibility being introduced into the market we are concerned that the nature of the services proposed do not represent those applicable to a gas storage facility and as such should not be given access to the same transmission charges storage discounts. As part of its decision-making process, we would expect Ofgem to consider the impacts on existing storage services, particularly when looking to open up the charging methodology to allow linepack service users access to discounts specifically designed for storage users.

Further, we are concerned that if a “broad brush” approach is taken in relation to which linepack services may be classified as storage services that additional pipeline operators may seek to request similar treatment. Clearly, the application of charging discounts will have a broader impact on other Users of the System, as charges will need to be increased elsewhere to compensate for the reductions in revenue recovery.

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

None

Representation - Draft Modification Report UNC 0761

Arrangements for Interconnectors with additional Storage capability

Responses invited by: 5pm on 19 November 2021

To: enquiries@gasgovernance.co.uk

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

Representative:	Richard Fairholme
Organisation:	Uniper
Date of Representation:	19 November 2021
Support or oppose implementation?	Oppose
Relevant Objective:	**a)** None **b)** None **d)** None
Relevant Charging Methodology Objective:	**a)** None **b)** None **c)** None

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

We are unable to support this proposal as the legal question of whether an interconnector can also be a storage facility under the Gas Act 1986, remains unresolved. At present, it is not clear that interconnectors meet the definition of a storage facility under Section 48(1) of the Gas Act 1986. As described in the Workgroup report, the definition of gas storage was introduced by the Electricity and Gas (Internal Markets) Regulations 2011/274 and remains unchanged. We understand that the proposer takes a different view on this matter, relying instead on more recent EU Regulations. However, as noted in the Workgroup report, BEIS has confirmed that the 2011 definition remains unamended. Therefore, we can only conclude that the legal provisions being relied upon by the proposer and IUK are erroneous.

It is our view, therefore, that this proposal cannot define a storage facility in a manner inconsistent with the definition in the Gas Act, which takes primacy over industry codes. Furthermore, we cannot see how the UNC Panel could recommend implementation, if doing so would place the UNC in conflict with the Gas Act. Clearly, Ofgem will need to satisfy itself that if implemented, this proposal would not create such a situation.

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

Uniper does not support implementation

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?*

No view

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

Q1. Do any legal points need to be considered which are relevant to 0761?

It is not clear that an interconnector can undertake the role of storage as defined under the Gas Act and thereby obtain the 80% capacity discount as permitted in the UNC. Ofgem will need to take it's own legal view on this issue.

Q2. Do you have any views in relation to the delivery costs and potential benefits associated with delivering this solution?

We note that the implementation costs for this service, as provided by Xoserve, were estimated to be £1Million. Given that there is no assessment of the likely take-up of this new service, which is also not fully defined, it is impossible to quantify the benefits. Whilst we understand that NGG would pay for implementation costs, we should not lose sight of the fact that this is ultimately customer's money being spent. We would expect to see a clear case that the benefits of this service will outweigh the implementation costs. However, this is not provided.

Q3. Do you have any views as to whether implementation will increase overall NTS throughput volumes?

No view.

Q4. Please explain whether you believe this solution has any impacts on other available storage services.

The proposer has argued that the volumes involved would not put the service in direct competition with existing gas storage facilities. However, this view seems to be based primarily on Working Gas Volumes (WGV). When the IUK capacity of 8.7mcm for withdrawal and injection is compared to existing gas storage facilities, it is clear that there are potential market impacts which could affect competition. This is illustrated in the table, below, which presents the proposed IUK product as a percentage of existing storage facility parameters, using Ofgem published data[1]:

[1] https://www.ofgem.gov.uk/sites/default/files/docs/2021/01/2021_gas_storage_data_0.pdf

	WGV	Withdrawal	Injection
Hornsea	3%	73%	290%
Hatfield Moor	12%	435%	435%
Humbly Grove	4%	124%	109%
Aldborough	4%	28%	30%
Holford	4%	40%	33%
Hill Top	15%	67%	67%
Stublach	2%	29%	29%
Total	**1%**	**7%**	**8%**

Ultimately, it is for Ofgem to determine if this proposal would have a significant impact on the market for flexibility in the UK.

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 further to add