

UNC Final Modification Report	At what stage is this document in the process?
<h1>UNC 0727 (Urgent):</h1> <h2>Increasing the Storage Transmission Capacity Charge Discount to 80%</h2>	<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; display: flex; align-items: center; gap: 10px;"> 01 Modification </div> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; display: flex; align-items: center; gap: 10px;"> 02 Workgroup Report </div> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; display: flex; align-items: center; gap: 10px;"> 03 Draft Modification Report </div> <div style="border: 1px solid #ccc; border-radius: 5px; padding: 5px; display: flex; align-items: center; gap: 10px;"> 04 Final Modification Report </div> </div>
<p>Purpose of Modification:</p> <p>The revised NTS Charging Methodology (in place from 01 October 2020) includes a discount for capacity purchased at storage sites of 50%. This Modification seeks to include a higher discount rate of 80% for such capacity, to be introduced on 01 October 2020 or as soon as possible thereafter.</p>	
	<p>The Panel recommends implementation</p>
	<p>High Impact: All parties that pay NTS Transportation Charges and/or have a connection to the NTS, and National Grid NTS.</p>
	<p>Medium Impact: N/A</p>
	<p>Low Impact: N/A</p>

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Modification timetable:	
Modification sent to Ofgem	05 June 2020
Ofgem decision on Urgency	10 June 2020
Modification issued for Consultation	11 June 2020
Consultation Close-out for Representations	26 June 2020
Final Modification Report available for Modification Panel	02 July 2020
Modification Panel Recommendation	03 July 2020
Final Modification Report issued to Ofgem	03 July 2020

 Any questions?

Contact:
Joint Office of Gas Transporters

 enquiries@gasgovernance.co.uk

 0121 288 2107

Proposer:
Benoit Enault,
Storengy UK Ltd

 benoit.enault@storengy.co.uk

 01606 815 372

Transporter:
National Grid NTS

 colin.williams@nationalgrid.com

 01926 655916
or 07785 451776

Systems Provider:
Xoserve

 commercial.enquiries@xoserve.com

Other
Nick Wye

 nick@waterswye.co.uk

 07900 055144

1 Summary

What

The revised NTS Charging Methodology (the 'revised Methodology') which takes effect from 01 October 2020 includes a 50% discount to be applied to storage related NTS (Entry & Exit) Capacity. This proposal seeks to increase the discount to 80%.

Why

The revised Methodology aligns the overall GB transmission Charging Methodology to the new charging structures compliant with the EU Tariff Code and introduces a discount of 50% to apply for capacity booked at storage site. The Proposer believes that the discount should be increased to 80% to prevent significant commercial impact for Storage Users which would ultimately have an adverse impact on security of price and supply for the GB market.

How

Changes are proposed to the Charging Methodology contained within UNC TPD Section Y to include a higher discount to Capacity prices of 80% to apply for storage capacity.

2 Governance

Justification for Urgency

This Modification should be treated as an Urgent Modification Proposal and should proceed under a timetable approved by the Authority. A proposed timeline is provided in the timetable section of this Modification.

Urgent status is sought on the basis that the need to introduce the mechanism advocated by this Modification is driven by an imminent date related issue, this being the introduction of the new NTS Charging Methodology from 01 October 2020.

There is now a short period of time until the 'go-live' date for the revised Methodology (01 October 2020) which is not sufficient enough to deliver a timely decision in respect of this Modification were it to follow standard governance procedures.

If this is not addressed urgently, it would result in a significant commercial impact for storage owners and Users and as detailed within Ofgem's 'UNC 0678 decision document (as underpinned by CEPA's (Centre of European Policy Analysis) analysis)¹, could ultimately have an adverse impact on security of price and supply for the GB market.

Justification for Authority Direction

This Modification 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 and supply of gas. Further, the Modification Proposal will enhance security of price and supply in the UK. This Modification Proposal will reduce the transportation costs, in particular Capacity Charges, incurred by the owners of gas Storage Facilities and/or the Users of the facilities.

¹ https://www.ofgem.gov.uk/system/files/docs/2019/12/cepa_unc678_analytical_support.pdf

Without this change there is a danger that Storage Facilities will close, or Operators will limit the availability of Storage Capacity as the commercial viability of maintaining current levels will be significantly undermined.

Requested Next Steps

This Modification should be treated as Urgent and should proceed as such under a timetable agreed with the Authority.

The topic of a higher level of storage discount as part of the Transportation Charging Methodology has been extensively discussed during the development of Modifications 0621 and 0678. Pre-Modification discussions have been held at NTSCMF in early 2020 on at least two occasions.

3 Why Change?

Within the EU Tariff Code, there are requirements (Article 9) to apply further discounts for storage capacity, where “a discount of at least 50% should be applied to capacity-based transmission tariffs at Entry Points from and Exit Points to Storage Facilities.” This minimum discount is specific to storage in order to reduce the impact of double charging and in recognition of the general contribution to system flexibility and security of supply of such infrastructure. The revised Methodology requires that the discount to apply for capacity at storage sites is set at the minimum level of 50%.

As part of the discussions relating initially to the development of UNC Modification Proposal 0621 (and its Alternatives) and, subsequently, to the development of UNC Modification Proposal 0678 (and its Alternatives), substantial evidence was provided that a discount level of 80% would be more appropriate to apply for storage capacity²³. As part of its ‘minded-to’ decision document, Ofgem agreed that there was merit in the arguments made as part of the UNC Modification Proposals 0678C/E/F such that a discount level greater than 50% should apply for Storage Facilities. In particular, Ofgem noted the benefits that gas storage can bring to the system in relation to price stability at times of relative system stress. Ofgem reinforced this position in its final decision⁴ on UNC 0678 and its Alternatives stating that it “remained open to a storage discount of above 50%.”

Additionally, the analysis presented by CEPA in their detailed report⁵ supporting Ofgem’s final decision, shows that the impact of the implementation of either UNC Modification Proposal 0678 (CWD (Capacity Weighted Distance) in their Figure 3.26 below) or 0678A (PS (Postage Stamp) in their Figure 3.26 below) will have a significant detrimental effect on the revenues of GB gas Storage Facilities and thereby their viability.

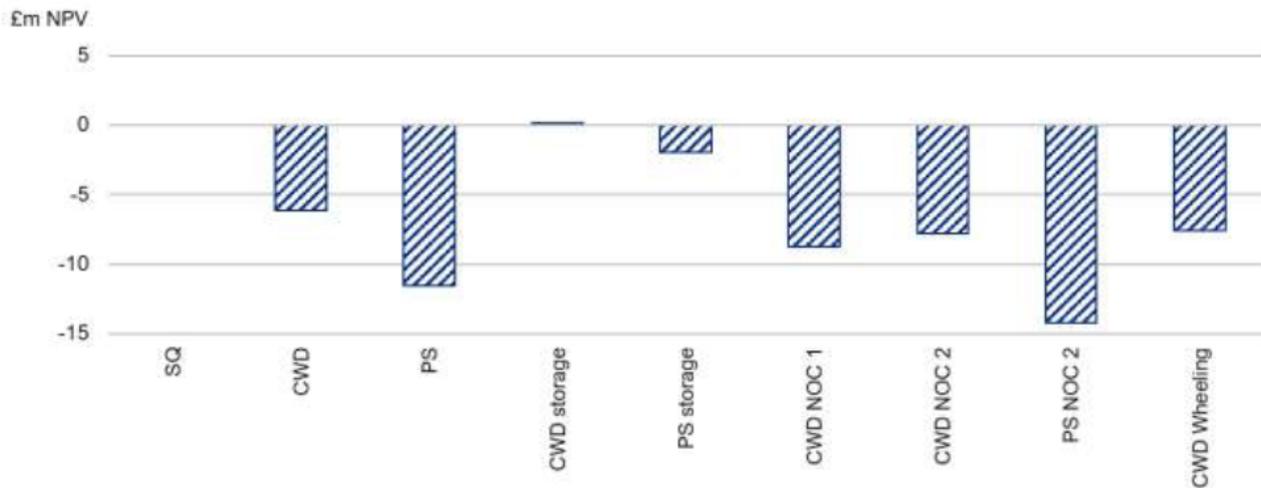
² <https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2019-02/WVA%20GSO%20NTS%20CapacityDiscountsReport270219finaldraftv0%205.pdf>

³ <https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2019-04/GCR%20Gas%20Storage%20Benefits%20Document%20%28provided%20by%20Alex%20Niell%2003April19%29.pdf>

⁴ https://www.ofgem.gov.uk/system/files/docs/2020/05/unc678_-_decision_0.pdf

⁵ https://www.ofgem.gov.uk/system/files/docs/2020/05/cepa_unc678_analytical_report.pdf

Figure 3.27: Direct impacts of changes to the tariff on revenues of collective GB gas storage facilities (no market price impacts included) (NPV, TD 2022-2031, discounted to £18/19)



The percentage change in revenues is presented in their Table 4.1 given below, which shows that under UNC Modification 0678A, total storage revenues would reduce by 62%.

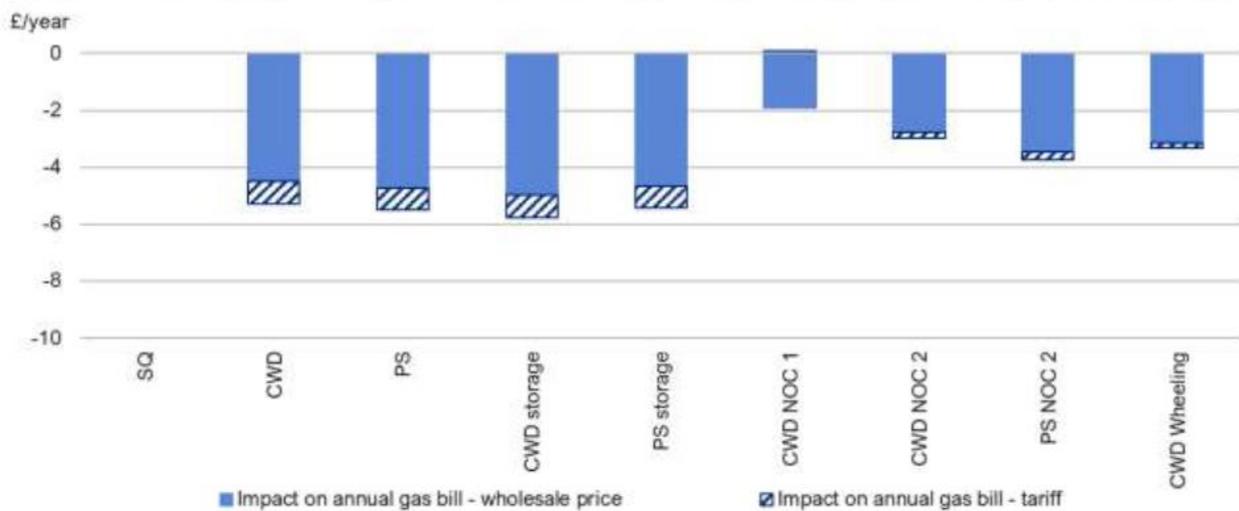
Table 4.1: Percentage change in total storage revenues as a result of changes to tariffs (TD, NPV, 2022-31)

Option	Percentage change in revenues of gas storage facilities as a direct result of changes to entry and exit tariffs
SQ	N/A
CWD	-33%
PS	-61%
CWD storage	1%
PS storage	-10%
CWD NOC 1	-46%
CWD NOC 2	-41%
PS NOC 2	-76%
CWD Wheeling	-40%

Both CEPA's Figure 3.27 and Table 4.1 show that if the discount level is increased to 80% the impact on facilities' revenues is reduced for the Reference Price Methodology (RPM) PS storage. In this scenario revenues are reduced by 10%. This should help to reduce the risk that the facilities would withdraw capacity due to the consequences of changing the Charging Methodology and therefore, avoid the adverse effects such withdrawals would have on wholesale gas prices and security of supply.

Sections 3.4.1 to 3.4.3 of the CEPA detailed report show the impact on consumer bills of the different charging models, considered when compared to the status quo ('SQ'). The analysis shows that increasing the discount level for Storage Users from 50% to 80% for the PS RPM has a negligible effect on consumer bills as shown in Figure 3.1.4 below, (Note: 'PS' bars relate to a 50% discount for storage capacity, whereas 'PS storage' bars include an 80% discount for storage capacity. For the purposes of this Modification, the additional bars can be ignored).

Figure 3.14: Estimated gas bill impact for median consumption domestic gas consumers (TD, 2030-31, £18/19)



The Proposer, therefore, suggests that an enduring storage discount value of 80% should apply, but recognises the EU Tariff Code requirements for the charging regime to be reviewed by Ofgem or National Grid as a whole, at least every 5 years.

4 Code Specific Matters

Reference Documents

EU Tariff Code (Regulation 2017/460)

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32017R0460>

UNC Modification Proposal 0678 and Alternatives

<https://www.gasgovernance.co.uk/0678>

Gas Transmission Charging Review (GTCR) and associated update letters

<https://www.ofgem.gov.uk/gas/transmission-networks/gas-transmission-charging-review>

Customer and Stakeholder Objectives developed within NTSCMF

<http://www.gasgovernance.co.uk/ntscmf/060916>

Knowledge/Skills

An understanding of the 0678 suite of Modifications, UNC TPD Section Y Part A, the EU Tariff Code, Gas Transmission Charging Review (GTCR) documentation and the customer / stakeholder objectives developed within NTSCMF would be beneficial.

5 Solution

Specific Capacity Discount for Storage

It is proposed that, in respect of storage sites, (locations where the type of Entry Point/Offtake is designated as a 'storage site' in National Grid's Licence⁶ (Special Condition 5F Table 4B for Entry Points, and Special Condition 5G Table 8 for Exit Points)) the applicable Specific Capacity Discount applied to the Reserve Prices in respect of Firm and Interruptible/Off-peak Capacity for a given Gas Year will be equal to 80%. In accordance with Ofgem's UNC Modification 0678A Final Decision, the solution is limited to increasing the storage discount and does not propose any other additional changes. The Proposer believes that this removes any concerns with EU compliance.

In its May 2020 UNC Modification 0678A final decision, its December 2019 'minded-to' decision document and in its decision letter to reject Modification Proposal UNC0621 and its Alternatives, Ofgem recognised the deleterious impact on Storage Facilities' net revenues of moving away from the current Charging Methodology. Based on the analysis carried out by Baringa⁷, net revenues would likely decrease by between 3% and 31%, depending on whether the storage discount is set at 50% or 86%⁸.

Furthermore, Ofgem stated that any discount above 50% would need a clear justification. The derivation of the 80% is based on analysis carried out by Waters Wye Associates (WWA) as set out in its report to the Gas Storage Operators Group⁹ and adopted in Modification Proposals 0678 C/E/F, which the Proposer contends provides sufficient evidence to justify the proposed level of discount. Whilst the analysis undertaken in this paper was based on the CWD RPM, it should be noted that if the same methodology was applied to the PS RPM, as the capacity prices are the same for all Entry Points and all Exit Points, the discount will equate to 100%, due to the lack of any distance driver with the calculation of capacity prices. Further, given CWD is similar to PS, in that both methodologies are based on a principle of revenue allocation, rather than cost reflectivity, the derivation of an 80% discount using CWD is a valid approach. For clarity, the methodology used to derive the 80% discount level was based on the comparative cost of transporting gas directly from a particular set of Entry Points to particular Exit Points with the costs of transporting along the same routes, but via storage sites. Therefore, distance is a vital component to determining the appropriate level of discount required in this case.

Storage Benefits

In addition to providing a quantitative basis for establishing a discount of 80%, the report to the Gas Storage Operators Group (cited above) sets out numerous benefits of storage which reinforce the case for a discount, which when considered in aggregate, might reasonably result in a level greater than 80%. In summary, these benefits include:

- Storage flows are highly correlated to demand, or changes in demand. The main driver for this is that demand is the primary driver of price (again a very high correlation exists between these variables) and Users employ storage to capture the intrinsic value associated with market price spreads over various durations (commonly known as time shifting the value of gas). Both National Grid and customers benefit from this interaction between storage flows and demand/price as it provides assistance in balancing the network while dampening price volatility and delivering positive externalities, or societal benefits, by

⁶ <https://epr.ofgem.gov.uk/Content/Documents/National%20Grid%20Gas%20Plc%20-%20Special%20Conditions%20Consolidated%20-%20Current%20Version.pdf>

⁷ https://www.ofgem.gov.uk/system/files/docs/2019/01/ofgem_gas_charging_review_baringa_report_final.pdf

⁸ Note that an 86% storage discount was proposed in UNC 0621A/B/C/DJ/K

⁹ <https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2019-02/WWA%20GSO%20NTS%20CapacityDiscountsReport270219finaldraftv0%2005.pdf>

reducing price spreads across a range of time periods. These outcomes are consistent with the aim of providing price stability benefits, by dampening price spikes while reducing volatility more generally.

- Storage delivers transmission benefits in terms of avoided investment in additional capacity. The fact that it is embedded in the network, close to demand, and operates in harmony with changes in demand means that storage delivers significant cost savings to the NTS and ultimately customers.

Security of supply is enhanced by gas storage. The ability to store gas in these facilities provides cost effective and reliable insurance against supply disruptions, demand spikes and excess supply. The benefits will be three-fold:

- delivering and accepting gas from and to the market in which it is located.
- dampening the price of gas by adding volume to the available supply and
- supporting the transportation system in periods of oversupply.

Additionally, within the 'Minded-to' document, Ofgem notes

“that, in theory, gas storage facilities may bring price security of supply benefits to the system such as helping to dampen price spikes while reducing price volatility more generally. CEPA’s analysis suggested that the change to tariff arrangements could introduce the potential for erosion of storage revenues which could affect closure decisions. We therefore consider that the inclusion of a storage discount of greater than 50% could help to better reflect this relevant objective” (Objective (e) Achievement of domestic security of supply standard). Para 6.20

Ofgem agree, in their 'Minded-to decision' that there were merits in the arguments made to include an 80% discount for capacity at storage sites as part of the UNC Proposals 0678C/E/F:

“The Proposers of UNC678 C/E/F have submitted papers alongside their Modification proposals which are intended to support their justification of an 80% discount. In summary, they state the following:

- *Gas storage should be considered to be ‘embedded within the network’ rather than entry and exit which makes use of the network.*
- *Gas storage responds to changes in system demand, injecting from the system at periods of low demand and delivering gas to the system at times of high demand.*
- *Gas storage provides a similar service to NTS linepack⁴⁵ but delivers gas to satisfy local demand.*
- *Gas storage has already made a contribution to cost recovery when it enters the NTS and before it is injected into storage and subsequently makes a contribution to cost recovery when it exits the NTS after being withdrawn from storage.*
- *The security of supply benefits provided by gas storage facilities are undervalued by the market.*
- *Gas storage provides benefits to the system in respect of avoided investment in additional gas transmission capacity.*

We think there is some merit in the arguments made above in relation to a discount of greater than 50% for storage facilities. In particular, we note some of the benefits that gas storage can bring to the system in relation to price stability at times of relative system stress.”

For the reasons outlined above, the Proposer suggests that an enduring storage discount value of 80% should apply but recognises the EU Tariff Code requirements for the charging regime to be reviewed, as a whole, at least every 5 years.

Consequences if Not Addressed

If this issue is not addressed urgently, it will result in a significant commercial impact for storage owners and Users and as detailed in Ofgem's 'Minded to' decision document (as underpinned by CEPA's analysis), could ultimately have an adverse impact on physical and price security of supply for the GB market.

Impacts and Considerations

Within the 'Minded-to' decision document, Ofgem noted that

"The reduction in the tariffs in the presence of an 80% storage discount (as proposed under UNC678C/E/F) can also be observed. Given the small proportion of cost recovery which is contributed by storage facility entry and exit bookings, CEPA find that the additional revenue recovery requirements resulting from an 80% discount only lead to a marginal change in the tariffs at other entry and exit points on the system." Para 5.39

Non-Transmission Services Charges

Under the current arrangements, storage sites are exempt from System Operator (SO) Commodity Charges. In the past, there have been discussions¹⁰ around whether storage sites should pay some form of SO Commodity Charge. Analysis done at the time concluded that large elements of the costs which contribute towards the SO Commodity Charge are not applicable to storage and that remains the case today. The discussions recognised the benefits which storage sites make to the UK gas system and concluded that given the low materiality of the charge and the potential large system implementation costs of introducing the charge, the status quo should prevail¹¹.

It is therefore proposed that the current arrangements should remain such that storage flows should continue to be excluded from Non-Transmission Services Charges.

Interaction with the Charging Methodology

For the avoidance of doubt, National Grid will forecast the extent of all Users elections to incur the Storage Discounted Reserve Price and non-application of Non-Transmission Charges for the forthcoming Gas Year. The net impact (of this forecast) on the aggregate amounts of Transmission Services and Non Transmission Services Revenue which National Grid NTS estimates would be earned in the Gas Year will be taken into account (where practicable) when assessing the Entry Revenue Scaling Factor and Exit Revenue Scaling Factor (for Transmission Services) for the relevant Gas Year (except for the Gas Year commencing 1 October 2020) otherwise will be taken into account in the determination of Transmission Services Revenue Recovery Charges and General Non Transmission Services Charges for the relevant Gas Year.

6 Impacts & Other Considerations

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

No

¹⁰ NTS GCD 05 was one of a few initiatives to examine this issue <https://www.nationalgridgas.com/document/71836/download>

¹¹ <https://www.nationalgridgas.com/document/71831/download>

Consumer Impacts

There is likely to be an impact on different consumer groups, but the allowed revenue collected by National Grid NTS will not change, only the parties that pay and in what quantity. The Gas Transportation Charges recover a set amount of monies from Users of the NTS and these allowed revenues are determined in line with National Grid's Licence.

As shown within Appendix A of the CEPA detailed analysis report (cited above), the impacts (particularly for the PS RPM) of increasing the discount rate for storage from 50% to 80% will have a minimal effect on end consumers.

Cross Code Impacts

None

EU Code Impacts

EU Tariff Code compliance is considered as part of this Modification Proposal, noting that the EU Tariff Code (Article 9) allows for "*a discount of **at least 50%** should be applied to capacity-based transmission tariffs at Entry Points from and Exit Points to Storage Facilities*".

Were the Transmission Services Revenue Recovery Charge to be used to account for the revenue which needs to be recovered in Gas Year 2020/21 as a result of this Modification, it is consistent with Arts 17 and 18 of the EU Tariff Code.

Central Systems Impacts

There may be very minor impacts on Gemini and UK Link invoicing systems, however, it is the understanding of the Proposer that appropriate measures were put in place in the anticipation of the potential implementation of UNC Modification Proposals UNC 0678C/E/F.

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.	Positive
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

Demonstration of how the Relevant Objectives are furthered:

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

Based on the analysis carried out by Storengy and WWA there is a clear relationship between the physical operation of Storage Facilities and the pipe-line system.¹² The strong, positive correlation between aggregate gas demand and storage withdrawals/injections means that National Grid, in its role as SO, benefits from gas storage, at no cost. The flexibility provided by gas storage provides direct support to National Grid in its role as system balancer through; contributing to linepack management and reduced activity and costs associated with National Grid's participation in the balancing market (On the Day Commodity Market) or any other contractual arrangements it may choose to enter into as part of its network balancing toolbox.

¹² WWA paper <https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2019-02/WWA%20GSOG%20NTS%20CapacityDiscountsReport270219finaldraftv0%205.pdf> and Storengy paper <https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2019-03/GCR%20Gas%20Storage%20Benefits%20Document%20v1.3%20%28provided%20by%20Alex%20Nield%29.pdf>

By setting that storage discount at the minimum permissible level of 50%, analysis performed by the Proposer and WWA indicates that the aggregate costs incurred by storage owners would be significant following the implementation of UNC Modification 0678A (£11,804,642), as shown in Table 1 below (also see Appendix 3, Table A1):

Table 1: Costs to storage of alternative discounts

Scenario	Entry Cap (firm) £/a	Exit Cap (Int) £/a	Total £/a
Modification 0678A (PS – 50% discount)	8,681,077	3,123,565	11,804,642
PS – 80% discount	3,529,223	1,298,105	4,827,328

These represent significant increases to the prevailing methodology and the impact of these cost increases will lead to reduced storage cycling as the variable costs incurred by storage owners will diminish opportunities for capturing value in shorter term spreads. In turn, system balancing costs will increase, as storage will less frequently make a positive contribution to the overall balance of the network and limit access to an essential balancing tool for shippers and National Grid as the balancer of last resort. The impact on storage profitability is highlighted in the Ofgem UNC 0621 letter and the accompanying Baringa analytical report, which states

“Although the largest share of costs of storage facilities relate to CAPEX and is therefore sunk, a reduction in net revenues of 20-30% or more would significantly impact the profitability of storage facilities. If operating costs are sufficiently low, storage facilities are likely to remain open but revenues may not be sufficiently high to justify any significant further investment, including refurbishment costs .Hence, under a number of alternative tariff methodologies, storage facilities may encounter challenges in continuing operations in the medium-to longer-run.”

In addition, Baringa understands that any changes to tariffs will be considered differently to shifts in market conditions and as a result will be “burdened” by the storage operator in terms of service offerings:

“The impact of changes in the tariff methodology would be seen as permanent and would therefore not be assessed in the same way.”

The level of discount should be consistent with the contribution to system flexibility (as recognised in the EU Tariff Code Art.9) and the Proposer believes that the application of the minimum permissible discount does not fulfil this requirement. The minimum, according to the EU Tariff Code simply avoids Storage Users being “double charged” for the use of the system, reflecting the “parking service” unique to storage located within a national network. On this basis, the Proposer contends that a discount of 80% not only better reflects the contribution made by Storage Facilities in relation to the efficient and economic operation of the pipe-line system, but it also preserves the ability for gas storage to provide an economic means for balancing the pipeline system.

The additional costs imposed on Storage Users through the application of the minimum discount, and in particular the related significant escalation in the cost of off-peak capacity, would result in undesirable market

impacts, such as increased between day and within day price volatility. These market impacts conflict with this Relevant Objective a) by inflating the costs associated with balancing the system.

As can be seen in Table 1 above, setting the level of discount to 80% helps to reduce these cost increases. The total costs to Storage Users for 2020/21 would be £4,827,328 for the PS RPM representing a 59% saving against the corresponding tariffs with 50% discount.

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

Storage provides support to the entire network. Its proximity to demand and flow response to changes in aggregate demand levels ensures that overall system pressures are supported, benefiting the NTS and connected networks. In the absence of storage, marginal gas supplies would be more distant from demand which in turn may result in operational issues for DNs, in the absence of additional investment in the NTS.

d) Securing of effective competition between relevant shippers;

Where the charges levied on Storage Users better reflect the costs/benefits of storage flows on the system, it improves the overall cost reflectivity of charges and as such better facilitates competition through diminished cross-subsidisation.

e) Achievement of domestic security standards

Storage facilities provide price stability benefits by dampening price spikes and reducing price volatility as they respond to market price signals, which in turn are highly correlated with supply and demand. Based on CEPA's analysis that the revised charging methodology under UNC 0678A will likely erode storage revenues and affect closure decisions a discount of 80% would better reflect this relevant objective by limiting the erosion of the storage revenues.

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: <ul style="list-style-type: none"> (i) no reserve price is applied, or (ii) that reserve price is set at a level - <ul style="list-style-type: none"> (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; 	Positive
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

This Modification proposal does not conflict with:

- (i) Paragraphs 8, 9, 10 and 11 of Standard Condition 4B of the Transporter's Licence; or
- (ii) Paragraphs 2, 2A and 3 of Standard Special Condition A4 of the Transporter's Licence;

as the charges will be changed at the required times and to the required notice periods.

Demonstration of how the Relevant Objectives are furthered:

- 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;**

The Proposer believes that the Modification better reflects the costs incurred by the licensee. In particular, in relation to gas storage, the application of an 80% discount better facilitates this objective. The requirement for a minimum 50% discount for storage related capacity in the EU Tariff Code insulates Storage Users from double charging and nothing more, however, given that Storage Facilities are embedded in the network, its application fails to appreciate the relative costs of delivering gas directly to offtakes compared to those incurred by routing gas via storage.

As set out in the WWA report to the Gas Storage Operators Group (see footnote 7) the fact that flows to and from offtakes located close to Storage Facilities are cheaper, in terms of transportation costs, than the cost of flowing gas to the same offtakes, but via storage (including a 50% discount), suggests that a 50% discount is not cost reflective. The application of an 80% discount ensures that the costs incurred under these two flow scenarios are equivalent, and that the costs of transporting gas to and from storage are as

cost reflective as the costs of transporting gas directly between non-storage Entry Points and non-storage Exit Points.

Further, the application of an 80% discount ensures that the benefits, or negative costs which are delivered by storage in terms of investment savings attributable to the transmission owner, are to some degree represented in the cost of using storage (see WWA and Storengy reports in footnote 7).

The fact that the benefits of embedded Entry Points located within DN networks receive discounted DN transportation costs, or even credits, as described in the WWA report, suggests that a discount which is set to singularly remove double charging is inconsistent with the approach taken in other pipeline networks. The additional level of discount provides a mechanism for recognising the benefits afforded by embedded Entry Points (and Exit Points) and is in line with the cost reflective charging methodologies approved and employed at the DN level.

b) That, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;

Considering the lead time required for the development of such assets, assumptions on storage flows for the modelling of the impact of a discount of 80% on the Transmission Revenue Recovery Charges are robust for 5 years, at the very minimum.

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

The application of an 80% discount for Storage Users better achieves this objective. Firstly, as described in the Storengy and WWA reports (footnote 7) gas storage provides shippers with access to physical flexibility to manage any physical portfolio imbalances which occur for a variety of reasons. Gas storage is an essential tool for a large number of shippers which contract directly with storage operators, but also provides wider benefits to all shippers as a result of enhanced security of supply, market price stability and well-understood, significant positive externalities. These wider benefits dampen price volatility and reduce the likelihood of network constraints, gas deficit issues and cost escalation (see WWA and Storengy reports, footnote 7).

8 Implementation

Implementation is proposed to take effect concurrent with the introduction of the revised Methodology, i.e. 01 October 2020, however implementation will be in line with any Ofgem direction.

9 Legal Text

Text Commentary (provided by the Proposer)

For 0678A

Amend the “Specific Point Discount” for “Storage Site Points” from “50%” to “80%” in 2.8.4(a) of Section Y (Charging Methodologies), Part A – NTS Charging Methodologies, A-1 NTS Transportation Charging Methodology

Text (provided by the Proposer)

For 0678A

Section Y, Part A, A-1

2.8.4 The “Specific Point Discount” is

(a) for Storage Site Points, 80%; and

(b) for LNG Importation Terminal Points, zero (0%)

10 Consultation

Ofgem invited representations from interested parties on 11 June 2020. The summaries in the following table are provided for reference on a reasonable endeavours’ basis only. It is recommended that all representations are read in full when considering this Report. Representations are published alongside this Final Modification Report.

Of the 14 representations received 10 supported implementation, 1 offered qualified support, 1 provided comments and 2 were not in support.

Representations were received from the following parties:

Organisation	Response	Relevant Objectives	Key Points
BP Gas Marketing (BPGM)	Support	<ul style="list-style-type: none"> a) Positive b) Positive d) Positive e) Positive 	<ul style="list-style-type: none"> • BP believe that the introduction of a new charging regime from 01 October 2020 with the implementation of UNC Modification Proposal 0678A will see the cost incurred for storage increase significantly. • Article 9 of the EU Tariffs Network Code states “A discount of at least 50 % shall be applied to capacity-based transmission tariffs at entry points from and exit points to storage facilities”. UNC Mod 0678A does include the minimum discount of 50% for storage. This will reduce some of the cost increase to storage incurred by the new charging methodology but costs are still significantly higher than they were previously. This Modification proposal 0727 seeks to implement an 80% discount on flows to and from storage facilities. This will increase competition between sources of flexibility as well as ensuring security of supply. • BP highlight that Ofgem in their decision notice for UNC Modification 0678 stated that they remained open to a storage discount above 50%. • Support an implementation date of 01 October 2020 or a date soon after.. • BP do not envisage any impacts or costs for BPGM. • No comments on the Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully</p>

			<p>compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> BP are of the view that the requirements as set out in Article 28 – 32 of the Tariff Network Code have been met. There are still some tariffs to be published but National Grid have already confirmed these will be published by the beginning of September. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> BP agree with the Proposer of the Modification that a 01 October 2020 implementation date should be met. This would bring the 80% discount in at the same time as the introduction of the new charging regime. If not, then implementation should be on the 1st of the month as close to October 2020 as possible.
Cadent	Support	<p>a) Positive b) Positive d) Positive e) Positive</p>	<ul style="list-style-type: none"> Cadent support this Modification as it encourages the provision and availability of storage to support security of supply, particularly during a cold winter where a diversified supply source can aid meeting high demand, or beach Entry is temporarily affected by outages. This would support Relevant Objectives a), b) and e). In addition, the increased discount would stimulate competition in this sector thereby supporting Relevant Objective d). Implementation should take effect from 01 October 2020 in line with the new Transmission Charging Methodology. No comment on Impacts and Costs were provided. Cadent are satisfied that the Legal Text will deliver the required solution. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> Article 28; Consultation on discounts, multipliers and seasonal factors. Given this Modification proposal has gone out for peer review and consultation it is compliant regarding that aspect. The Article states Consultations shall be conducted every tariff period from the date of decision. It is assumed the Proposers' expectation is the 80% discount would remain in perpetuity if approved, until a new Modification to alter this rate was raised.

			<ul style="list-style-type: none"> Article 32, leading on from Article 29, compliance will depend on whether this Modification is proposed now or subsequently delayed and the proximity of implementation to 01 October 2020, but if approved and implemented before 01 September 2020, it should be compliant. The Modification Proposal is compliant with Article 31 as this is formatting related. As the Modification Proposal is only altering the discount percentage and not changing the range of products/services it applies to, then it should be compliant. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> The proposed implementation date of 1 October 2020 would coincide with the implementation of the new Transmission Charging Methodology following Authority approval of UNC Modification 0678A. <p><u>Additional Information:</u></p> <ul style="list-style-type: none"> Agree with the findings of the report published by Waters Wye Associates titled 'NTS Charging Review: setting a tariff discount for storage' (26 February 2019) in that the higher discount rate applied to storage sites is valid and appropriate. Also, in the CEPA report supporting Ofgem's final decision on UNC Modification 0678A, the analysis shows that increasing the discount from 50% to 80% for the Postage Stamp Reference Price Methodology has a negligible effect on consumer bills. Given the support that storage may provide to security of supply at times of high demand or supply distress, this may be a worthwhile trade-off.
Centrica	Support	a) Positive b) Positive d) Positive Relevant Charging Methodology Objectives: a) Positive aa) Positive b) Positive c) Positive e) Positive	<p><u>Efficiency</u></p> <ul style="list-style-type: none"> Believes, there is a demonstrated strong, positive correlation between aggregate gas demand and storage withdrawals/injections. This means that the gas transportation system (system operations) benefits from gas storage to manage the overall network Agrees that a discount of 80% better reflects the contribution made by storage facilities in relation to the efficient and economic operation of the pipe-line system and preserves the ability for gas storage to provide an economic means for balancing the pipeline system.

		<ul style="list-style-type: none"> • The flexibility provided by gas storage provides direct support to the System Operator contributing to line-pack management and reduced activity and costs associated with National Grid’s participation in the balancing market (OCM) or any other contractual arrangements it may choose to enter into as part of its network balancing toolbox. <p><u>Investments</u></p> <ul style="list-style-type: none"> • Currently, storage flows are exempt from the application of TO Commodity Charges which are largely employed to recover revenues not recovered from capacity tariffs. • With the shift to a Postage Stamp Methodology, the additional costs imposed on storage Users through the application of only the minimum 50% discount would be considerably higher than under the current market rules. The negative impact on investment decision concerning storage has been acknowledged by Ofgem in the minded-to-decision at point 5.84¹³. • In addition, this would result in undesirable market impacts, such as increased between day and within day price volatility. These market impacts conflict with this objective by inflating the costs associated with balancing the system. <p><u>Competition</u></p> <ul style="list-style-type: none"> • Shippers will have a greater level of confidence in their forecasts of prospective use of network costs and therefore set their own service costs more accurately and potentially with a lower risk margin thereby enhancing effective competition and indirectly increasing security of supply at economic prices. <p><u>Compliance</u></p> <ul style="list-style-type: none"> • The level of discount should be consistent with the contribution to system flexibility (EU Tariff Code) and the 50% discount is only a minimum that can be higher if appropriately justified. • The additional revenue recovery requirement resulting from an 80% discount would only lead to a marginal increase in transmission tariffs for other Users. • Provided no comment on impacts and costs. • Satisfied with the Legal Text.
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¹³ “[CEPA] analysis shows that storage operator revenues may be significantly affected by changes to the tariff arrangements. Reductions in revenues are lower where a CWD RPM is used.

			<p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> No response. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> Implementation should align with the implementation of UNC Modification 0678A i.e. 01 October 2020. Otherwise as soon as possible afterwards. A revision of the Revenue Recovery Charge, if and when needed based on the gas transporter forecasts, will need to be issued providing for 2 months' notice.
Equinor	Support	<p>a) Positive b) Positive d) Positive e) Positive</p>	<ul style="list-style-type: none"> Equinor agree with the Proposer that the proposed 80% is required to reflect the benefits that gas storage brings to the transmission system. This Modification would reduce the Capacity Charges incurred by the owners of Gas Storage Facilities while avoiding the issue of double charging and supports the wider benefits that storage provides, such as price stability, flexibility and security of supply. Supports 01 October 2020 implementation date. Believe that there will be no impacts and costs. Satisfied with the Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> Article 28; Consultation on discounts, multipliers and seasonal factors. This Modification proposal has gone out to industry consultation so therefore it is compliant with this article. Regarding Articles 29-32, provided the information is published within the required notice periods this proposal is compliant. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> Agree with 01 October 2020 to be in line with the implementation of Modification 0678A.

<p>Gas Storage Operators Group (GSOG)</p>	<p>Support</p>	<p>a) Positive b) Positive d) Positive e) Positive</p>	<ul style="list-style-type: none"> • Believes under the revised charging methodology costs will substantially increase for storage operators and storage customers, placing huge strain on the ongoing viability of storage operations within the UK. There is the very real potential that, as a result of reduced cycling, or withdrawal of storage capacity, gas prices become more volatile and security of supply will be compromised. In the case of either of these outcomes there will be a detriment to all GB customers. As set out in the proposal, the adoption of the minimum 50% discount fails to reflect the broader benefits of gas storage as provided for in EU Tariff Code Article 9. It should also be noted that a significant number of EU Member States have adopted storage discounts of greater than 50% with some providing 100% discounts on one or both of the entry and exit capacity products. Clearly, in an interconnected market, discounts which are significantly greater than those provided for in the UK will place domestic facilities at a competitive disadvantage. • Believes that it is vital that the Proposal is implemented on 01 October 2020 to coincide with the change in the charging methodology. Any delay will add significant costs to storage owners/Users which may limit cycling opportunities going into the upcoming winter. • No impacts and costs identified. • Satisfied with the Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> • GSOG’s opinion is that both the Storage Discount Increase and the Implementation Date are fully compliant with the relevant legislation. (Please refer to the Legal Opinion that Storengy has commissioned and published on the Joint Office Website.) Regarding Articles 29-32, provided the information is published within the required notice periods this proposal is compliant. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> • As GSOG believes that the Storage Discount Increase and the Implementation Date are fully compliant with the relevant legislation and that they represent a de minimis change to the overall charging regime the
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			<p>proposed implementation of 01 October 2020 should be mandated.</p> <ul style="list-style-type: none"> • Noted that prices are far higher than previously forecasted and potential impact analysis performed on previous proposals is slightly understated. Also, as has been identified by industry the restrictions placed on transferred capacity in terms of the application of Revenue Recovery Charges will have a detrimental impact on storage facilities. To some degree this will be mitigated by UNC Modification 0729 which in GSOG's opinion will ensure that the revised methodology is compliant with the EU Tariff Code. • The impact of maintaining a 50% discount for storage capacity is examined in the CEPA Analysis which forecasts that storage revenues would be reduced by 62% over the period 2022-2031. For GY 2020/21 analysis performed by Storengy shows that storage costs would be 2.5 times higher when comparing 50% and 80% discount levels. The impact on overall network tariffs would be marginal. • Based on the FCC numbers produced by National Grid in its notice of charges for GY 2020/21 in combination with the storage cost forecasts produced in the Appendix of UNC Modification 0727, the impact on Revenue Recovery Charges would be as follows: <ul style="list-style-type: none"> ○ Entry: 0.0008 p/kwh ○ Exit: 0.00008 p/kwh • These figures accord with the CEPA conclusion that the impact of increasing the discount from 50% to 80% would be marginal for GB customers. This negligible increase in costs needs to be weighed against the potential impact of storage Users/facilities and the resultant effects on price volatility and overall reduction in accessible market flexibility.
Interconnector (UK) Ltd	Oppose	<p>a) Negative b) Negative d) Negative e) Negative In addition g) Negative</p>	<ul style="list-style-type: none"> • In conformity with Interconnectors responses to the UNC Modification 0678 consultation, Interconnector oppose the increase of the storage discount to 80% as proposed in this Modification. An 80% capacity storage discount for storage Users would have a negative impact on competition between Users of other flexibility assets like bi-directional interconnectors. It distorts competition in favour of storage user/facilities. It therefore has a negative impact on Relevant Objective d) securing effective competition.

			<ul style="list-style-type: none"> • Believes that granting extra discounts to reflect the security of supply, system and wholesale price benefits that storage assets provide to GB is only appropriate if discounts are equally considered and applied to other assets providing the same benefits. This is necessary to avoid discrimination. A number of other assets including interconnectors provide wider benefits to GB also. • Furthermore, the reflection that Storage asset operators will not be realising the same revenue without an additional tariff discount also applies to other flexibility and security of supply providers who face higher charges. IUK is also affected by the consequences of the new charging regime. An additional discount for one type of flexibility asset would aggravate the situation. Equal consideration would need to be given to the revenue impact on other assets and the level playing field to avoid undue discrimination. • Interconnector do not support implementation of this Proposal. • Believes that the proposal will afford preferential treatment for one type of flexibility provider. It distorts competition with Users of other flexibility sources and is likely to have a knock-on detrimental impact on bi-directional interconnector revenues. CEPA’s analysis for the UNC Modification 0678 impact assessment showed a 80% storage discount encourages “greater flows from gas storage facilities relative to competing sources of entry, leading to higher revenues” (see P Figure 3.28 - p51 https://www.ofgem.gov.uk/system/files/docs/2020/05/cepa_unc678_analytical_report.pdf) . The CEPA report modelling furthermore estimated that “the inclusion of an 80% storage discount results in a notable decrease in bidirectional interconnector revenues” (see p48). • No comment was provided on the Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> • Interconnector’s opinion is that it is questionable if this is compliant with the Chapter VII of the European Tariff Network Code (TAR code) process. The final Article 26 periodic consultation process including the level of the storage discount has already been undertaken culminating in Ofgem’s UNC Modification
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			<p>0678 decision in May 2020. New prices have now published for October 2020 To consider a 80% discount proposal just a month after Ofgem’s decision is questionable in both the network code intent to carry out periodic consultations on the regime and the objective for a clear, predictable and stable charging regime.</p> <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> • Any change to the level of the storage discount in the future, and the necessary adjustments to reserve prices, should be implemented in line with the obligation to publish all the reserve prices on the network before the Gas Year. Ideally this should be in line with when interconnector point prices are published but at least two months prior to the new Gas Year. • Interconnector also do not believe a 80% discount for storage is merited. IUK noted concerns in the UNC Modification 0621 (A – L) Amendments to Gas Transmission Charging Regime and UNC Modification 0678 consultation processes that there is a distortion to competition via preferential treatment for storage compared to other flexibility sources providing GB similar benefits. Any discount above the minimum outlined in the TAR Code will be further detrimental to competition and cause undue discrimination. In particular, it will distort competition with shippers seeking to access continental storage and move gas seasonally via the interconnectors at the Bacton interconnection points (IPs). The negative impact has also been confirmed by CEPA’s analysis accompanying Ofgem’s UNC Modification 0678 decision. • Noted that It is important there is a level playing in the provision of flexibility to the market. The TAR code has obliged a storage discount on the basis Users already pay system entry and exit charges. This is now covered by the 50% storage discount. Granting extra discounts to reflect the security of supply, system and wholesale price benefits that storage assets provide to GB is only appropriate if discounts are equally considered and applied to other assets providing the same benefits. A number of assets including interconnectors provide these wider benefits to GB.
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			<ul style="list-style-type: none"> Furthermore, the reflection that Storage asset operators will not be realising the same revenue with or without an additional tariff discount also applies in a similar way to other flexibility and security of supply providers who face higher charges in the new charging regime. IUK is also affected by the consequences of the new charging regime and an additional discount for one type of flexibility asset would aggravate the situation. Equal consideration would need to be given to the revenue impact on other assets to avoid undue discrimination.
National Grid NTS	Qualified Support	<p>a) None b) None d) Positive e) None</p> <p>Charging Relevant Objectives:</p> <p>a) None aa) None b) None c) Positive</p>	<ul style="list-style-type: none"> Believes that there is no impact to Non-Transmission Services Revenue to consider as all Storage flows are exempt from the General Non-Transmission Services Entry and Exit Charges. Noted within Ofgem’s Decision letter for UNC Modification 0678A Ofgem stated that they remain open to a storage discount of above 50% where this is well justified and appropriate. Believes that the 80% level is quite subjective to valuing the benefits and any discount has the impact of requiring recovery of the amount not paid as a result of the discount from other Users, although National Grid recognise the materiality of the impact to other Users is low when comparing the 50% to the 80% discount proposals. National Grid support Storage receiving an increased discount to capacity reserve prices and believe the change from 50% to 80% will impose minimal extra costs to non-Storage whilst recognising the role Storage can play during times of system stress. Supports 01 October 2020 implementation date or any other date being the first Day of a month, directed by the authority. National Grid would need adequate notice to support the implementation and ensure the payable prices are correct on the invoices. National Grid note that under “Standard Special Condition A4. Charging – General” of National Grids Licence, the minimum notice that can be given to Ofgem for National Grid to notify of a change to Transportation Charges, is one month that would cover changes to the Transmission Services Entry and Exit Revenue Recovery Charges. No additional comments provided for impacts and costs. Satisfied with the Legal Text. <p><u>Specific Consultation Questions:</u></p>

			<p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> National Grid believe the storage discount specified within the Modification of 80% is compliant with the EU Tariff Code. With an update to 80% this changes the percentage discount for Storage relating to Article 9(1) of the EU Tariff Code. If the discount were to be higher than the 50% in place with UNC0678A then it would update the final Storage Transmission Services Tariffs mentioned in Article 9 for Gas Year 2020/21. If implemented, and only updating Storage Reserve prices, any shortfall arising from the increase of the discount from 50% to 80% would be accommodated via capacity-based Transmission Services Entry and Exit Revenue Recovery Charges (TSRRCs). As with many elements of the charging regime introduced as part of UNC0678A, TSRRCs manage revenue recovery within Gas Year for Transmission Services. <p>Article 30</p> <ul style="list-style-type: none"> Noted that Article 30 covers the “Information to be published before the tariff period”. Information required under Article 30 does not cover specifically the storage discount or a capacity based TSRRCs approved under UNC Modification 0678A. Article 30 does not seem to preclude a within-year variation of anything consulted on (unless prohibited by or in consequence of Article 12). National Grid noted that UNC Modification 0678A allows within year updates of the TSRRCs. <p>Article 32</p> <ul style="list-style-type: none"> On publication, Article 32 does not limit values being updated within the tariff year and implementation of UNC Modification 0678A introduces tariffs that can be updated at appropriate times, notably (and not limited to) the TSRRCs. Article 32 “Publication notice period” provides scope to update the report should any details, as necessary be updated. UNC Modification 0678A has charges introduced that can be updated within year. <p>Use of Revenue Recovery Charges</p>
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			<ul style="list-style-type: none"> The principle of capacity-based TSRRCs for the Gas Year (based on forecast over/under recovery of Transmission Services revenue in that Gas Year), and the ability to adjust these within-year, was approved in UNC Modification 0678A. This fulfils the obligation in Article 17 of the Tariff Code which manages revenue recovery to minimise under / over recovery and to recover in a timely manner. The proposal under UNC Modification 0727 does not alter this. Irrespective of implementation date, there are multiple scenarios that could give rise to a need to introduce or vary the TSRRCs for the Gas Year. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> Preference would be to implement as soon as possible so there would be a holistic change to the charging arrangements in line with those implemented under UNC Modification 0678A. National Grid can implement on the 01 October 2020 or any date which is the first Day of any subsequent month.
<p>Oil and Gas UK (OGUK)</p>	<p>Comments</p>	<p>a) Positive b) None d) None e) Positive</p>	<ul style="list-style-type: none"> Oil and Gas UK generally does not favour Modifications or Alternatives that go beyond the minimum discounts required by the TAR code unless a clear case can be made on a cost-reflectivity basis. As a general principle, all sources of gas should face the same charging structure, and sources of flexibility, including storage, should face the same set of incentives from the combination of transmission charges and the wholesale and balancing market rules. At the same time, the evidence provided in support of an 80% discount on cost reflectivity grounds was provided as part of the 0621 and 0678 Modification process. It is also noted that, as part of its 'minded-to' decision document, Ofgem agreed that there was merit in the arguments made as part of the UNC Modification Proposals 0678C/E/F such that a discount level greater than 50% should apply for embedded Storage Facilities. Noted, if approved, the Modification should be implemented in line with 0678A, that is October 2020. Discounts made available to National Grid customers on a selective basis have to be paid for by other Users of the system. This has a knock-on effect on their investment and

			<p>operational decisions, so such a decision should never be looked at in isolation. In particular, OGUK considers that a generalised view of the benefits of UK located storage based on a partial analysis of the impacts is not a strong justification for the proposed discount.</p> <ul style="list-style-type: none"> • In this case, however, evidence has been provided on cost reflectivity and the impact on the remaining market participants is relatively small. • No comment was provided on the Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> • The proposed change appears to be consistent with the Tariff network code although it is noted that this will be modified by the Schedule 5 of the Gas (Security of Supply and Network Codes) (Amendment) (EU Exit) Regulations 2019 on the expiry of the current transition period, currently expected at the end of 2020. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> • Agree with October 2020 implementation.
<p>RWE Supply & Trading GmbH</p>	<p>Support</p>	<p>a) Positive b) Positive d) Positive e) Positive Charging Relevant Objectives: a) Positive aa) Positive b) Positive c) Positive</p>	<ul style="list-style-type: none"> • Believes that UNC Modification 0727 is better than the UNC baseline and facilitates competition, efficient operation of the GB gas network and ensures security of supply. The proposal addresses the detrimental impact of the uniform capacity prices introduced under UNC Modification 0678A (Postage stamp) Reference Price Methodology on storage facilities in a targeted, proportionate and compliant manner. The Modification will result in a marginal change in the tariffs at other entry and exit points on the system which The proposal is compliant with Regulation 2017/460 establishing a network code on harmonised transmission tariff structures for gas (the TAR Network Code) and with Regulation 715/2009 on conditions for access to the natural gas transmission networks (the Gas regulation). • Supports implementation with effect from 01 October 2020. • Noted that this Modification will simply replace the 50% discount available for storage sites under the UNC Modification 0678A (Postage Stamp) with an 80% discount.

			<p>RWE do not, therefore, envisage any analysis, development or ongoing costs as a result of implementation.</p> <ul style="list-style-type: none"> • No comments were provided on Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> • Believes that this Modification is fully compliant with the with the relevant legislation. The Tariff Network Code envisages a discount at storage sites that is greater than 50% where this can be justified. The proposal sets out clearly the potential impact of the UNC Modification 0678A baseline on storage sites The 80% discount will ensure that storage sites remain operational, with benefits for GB security of supply, competition and efficient operation of the GB gas network as required under the relevant legislation. <p>Articles 28-32 of the Tariff Network Code</p> <ul style="list-style-type: none"> • Noted that National Grid Gas has published the reference prices from 01 October 2020 under UNC Modification 0678A (Postage Stamp) in advance of the annual capacity auctions as required by the TAR Network Code. These do not take into account any discounts that may be available 01October 2020 as a result of implementation of UNC Modification 0727. • Market participants have been aware for some time that the issue of storage discounts should be addressed alongside implementation of the new RPM under UNC Modification 0678A (Postage Stamp). In addition, Ofgem highlighted the issue of storage discounts in the decision letter that implemented UNC Modification 0678A. • Noted that this Modification has been published in advance of the annual capacity auctions and market participants can take a view on the impact of any future marginal adjustments to revenue recovery charges for the gas year commencing 01 October 2020. • Believes there is sufficient time for implementation of UNC Modification 0727 prior to the commencement of the new Gas Year on 01 October provided that an Ofgem decision is available to allow publication of
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			<p>revenue recovery charges 30 days prior to the start of the tariff period commencing on 01 October 2020.</p> <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> Believes implementation should be with effect from 01 October 2020 or as soon as possible thereafter.
Scottish Power	Support	<p>a) Positive</p> <p>b) Positive</p> <p>d) Positive</p> <p>e) Positive</p>	<ul style="list-style-type: none"> Scottish Power believes that this proposal more accurately reflects the true value of gas storage. Within Article 9(1) of the EU Tariff Network Code (TAR) there is a requirement to apply a minimum discount of at least 50% to storage. The rationale for that level of discount is simply to avoid double charging whereas Scottish Power believe that the 80% discount proposed in this Modification better represents the additional wider benefits that storage provides, such as price stability at times of system stress, flexibility in system management and security of supply. To that extent Scottish Power support and endorse the findings brought out in the reports by Waters Wye Associates dated 26 February 2019 and by the Gas Storage Operators Group dated 27 March 2019 and referenced within the Modification Proposal. Implementation should take effect from 1st October 2020 to align with implementation of the new Transmission Charging Methodology. No comments on Impacts and costs were provided. Satisfied with the Legal Text provided as it is merely the alteration of the level of applicable discount, although Scottish Power have not conducted a full legal review. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> Article 28: Consultation on discounts, multipliers and seasonal factors. This requires a consultation to be conducted in respect of discounts set out in Articles 9(2) and 16 which relate specifically to LNG facilities and Interruptible Capacity so should not impact this Proposal Article 29: Information to be published before the annual yearly capacity auction

			<ul style="list-style-type: none"> • Article 30: Information to be published before the tariff period • Article 31: Form of publication • Article 32: Publication Notice Period • As regards Articles 29-32, if a timeous decision is reached then the necessary information should be able to be published with the requisite notice periods, prior to implementation and so should otherwise be compliant. • In essence, this proposal would only be modifying the discount to be applied to the specific storage capacity product to a level which is itself compliant with TAR. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> • The proposed implementation date of 1 October 2020 aligns with the implementation of Modification 0678A and the application of the new charging regime and Transmission Charging Methodology. • Within the previous minded to decision (23 December 2019) on Modifications 0678 and its Alternatives, Ofgem indicated that it saw “some merit” in a number of the arguments advanced to justify an enhanced discount of 80% rather than the minimum 50% discount proposed. Moreover, the CEPA report referenced in Ofgem’s decision also identified that increasing the discount from 50% to 80% had only a minimal impact on overall charges or consumer bills, yet still preserved the other benefits from Gas Storage which may otherwise be jeopardised.
SSE	Support	a) Positive b) Positive d) Positive e) Positive	<ul style="list-style-type: none"> • Believes If this Modification s not addressed urgently, it would result in a significant commercial impact for storage owners and Users and as detailed within Ofgem’s UNC Modification 0678 decision document (as underpinned by CEPA’s (Centre of European Policy Analysis) analysis) , could ultimately have an adverse impact on security of price and supply for the GB market. This Modification Proposal will reduce the transportation costs, in particular Capacity Charges, incurred by the owners of Gas Storage Facilities and/or the Users of the facilities. • Additionally, within the ‘minded-to’ document, Ofgem notes “that, in theory, Gas Storage Facilities may bring price security of supply benefits to the system such as helping to dampen price spikes while

			<p>reducing price volatility more generally. CEPA's analysis suggested that the change to tariff arrangements could introduce the potential for erosion of storage revenues which could affect closure decisions. SSE therefore consider that the inclusion of a storage discount of greater than 50% could help to better reflect this relevant objective" (Objective (e) Achievement of domestic security of supply standard).</p> <ul style="list-style-type: none"> • Ofgem agree, in their 'minded-to decision' (paragraph 6.2) that there were merits in the arguments made to include an 80% discount for capacity at storage sites as part of the UNC Modification Proposals 0678C/E/F: <ul style="list-style-type: none"> ○ "The Proposers of UNC Modification 0678 C/E/F have submitted papers alongside their Modification proposals which are intended to support their justification of an 80% discount. In summary, they state the following: <ul style="list-style-type: none"> ▪ Gas storage should be considered to be 'embedded within the network' rather than entry and exit which makes use of the network ▪ Gas storage responds to changes in system demand, injecting from the system at periods of low demand and delivering gas to the system at times of high demand. ▪ Gas storage provides a similar service to NTS linepack but delivers gas to satisfy local demand. ▪ Gas storage has already made a contribution to cost recovery when it enters the NTS and before it is injected into storage and subsequently makes a contribution to cost recovery when it exits the NTS after being withdrawn from storage. ▪ The security of supply benefits provided by gas storage facilities are undervalued by the market. ▪ Gas storage provides benefits to the system in respect of avoided investment in additional gas transmission capacity.
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			<ul style="list-style-type: none"> • SSE think there is some merit in the arguments made above in relation to a discount of greater than 50% for storage facilities. In particular, SSE note some of the benefits that gas storage can bring to the system in relation to price stability at times of relative system stress.” • Noted that for the reasons outlined above, the Proposer suggests that an enduring storage discount value of 80% should apply but recognises the EU Tariff Code requirements for the charging regime to be reviewed, as a whole, at least every 5 years. • Ideally, to be implemented as soon as or after the Modification 0678 charging decision to avoid excess costs on storage operators and Users and subsequent risk of curtailment for the reasons explained above. However, reserve prices have been published and Revenue Recovery Charges can be implemented with 2 months’ notice in the event that National Grid forecast a change in allowed revenue recovery. Hence, there is no reason why this incremental change cannot be implemented at any time, just as capacity can stop being booked at any time once an asset is curtailed. • SSE noted in the Impacts and Costs, that Within the ‘minded-to’ decision document, Ofgem noted that “The reduction in the tariffs in the presence of an 80% storage discount (as proposed under UNC Modification 0678C/E/F) can also be observed. Given the small proportion of cost recovery which is contributed by storage facility entry and exit bookings, CEPA find that the additional revenue recovery requirements resulting from an 80% discount only lead to a marginal change in the tariffs at other entry and exit points on the system.” (Paragraph 5.39 N). • Satisfied with the Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> • Believes this Modification is compliant with EU TAR. Consultations in accordance with Article 28 and Reserve Prices have been published in accordance with Articles 29 & 32. If a subsequent change is made
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			<p>i.e. shorthaul or storage discount then a Revenue Recovery Charge can be utilised.</p> <ul style="list-style-type: none"> Noted that Revenue Recovery Charges can be implemented with 2 months' notice in the event that NG forecast a change in allowed revenue recovery. Hence, there is no reason why the incremental changes from mod 727 or 728 cannot be implemented at any time, just as capacity can stop being booked at any time by Users once an offtake is curtailed. The latter impact will result in a larger Revenue Recovery Charge (RRC) change as NTS bypass or storage closure will provide no revenue to NG but the mods will provide some. Hence, if no storage discount or shorthaul is available NG will require a larger RRC. Articles 30 and 31 will be met by publishing 30 days before the start of the respective tariff period on 30 September. The data published by National Grid will be made on the basis of best forecast but will likely be imperfect. This is because the data that determines the Forecasted Contracted Capacity (FCC) will change, regardless if there are shorthaul or storage discount Modifications. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> Ideally, to be implemented at the same time as the Modification 0678 charging decision to avoid excess costs on storage operators and Users and subsequent risk of curtailment for the reasons explained above. Reserve prices have been published in accordance with articles 29 and 32. Revenue Recovery Charges can be implemented with 2 months' notice in the event that National Grid forecast a change in allowed revenue recovery. Hence, there is no reason why this incremental change cannot be implemented at any time, just as capacity can stop being booked at any time by Users once an asset is curtailed.
Storengy	Support	<ul style="list-style-type: none"> a) Positive b) Positive d) Positive e) Positive 	<ul style="list-style-type: none"> As the Proposer Storengy support its proposed implementation. Under the currently proposed level of charges for the new charging methodology, costs will substantially increase for storage operators and storage customers, placing huge strain on the ongoing viability of storage operations in the UK, and therefore potentially a large impact on the price volatility within the industry. This large increase in costs threatens the future viability of gas storage operations in the UK,

			<p>and therefore Storengy believe that it is critical to reduce these costs upon implementation of the new charging methodology, supporting storage operations continuation in the short term, and allowing further time to make storage facilities sustainable for the longer term.</p> <ul style="list-style-type: none"> believes that UNC Modification 0727 will contribute to a better-functioning storage industry that will help minimise network operations cost (e.g. daily balancing), which will be positive for the end-consumer of gas and electricity. Storengy believe that with the level of cost increase to storage facilities, any lead time should be as short as possible, minimising the exposure of storage facilities to a substantial immediate increase in costs, and allowing the proposed changes to be implemented from the outset of the new charging methodology on 01 October 2020. Believes that this change will have minimal impact on other users of the system, and so can be easily implemented at short notice. Noted in the Impacts and costs that the movement to the new charging methodology places a huge increase in costs of operation to storage facilities through the huge jump in capacity cost applicable to storage. UNC Modification 0727 does not increase nor reduce the cost of adapting to the changes, as a change to an 80% discount is still a considerable increase compared to the previous charging regime and therefore, will require the same amount of adaptation of business processes and systems. However, an 80% discount will alleviate some of the cost burden of the NTS capacity itself. As per the analysis included in this Modification document, and the analysis undertaken by CEPA, it is clear that UNC Modification 0678A will place huge ongoing pressures on storage facilities in their operations, with CEPA previously concluding that storage revenues were expected to reduce by 62% under the new charging methodology¹⁴. With Gas Year 2020/21 NTS capacity reserve prices considerably higher than previously modelled in the 0678/A/B/C/D/E/F/G/H/I/J Modification process (+68%
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¹⁴ [Table 0.3 of UNC678 Impact assessment](#)

			<p>in Entry and +15% on Exit), this impact will be even more severe than previously concluded in the CEPA analysis, and therefore Storengy believe that it is critical to reduce the costs to storage from the outset of the new charging regime to help storage facilities to continue to operate under the new charging structure.</p> <ul style="list-style-type: none"> • Although this Modification only alleviates the pressure on storage facilities, Storengy believe that this should allow storage facilities to continue operation in the short term, allowing operators further time to investigate options to sustain facilities in the longer term. • This Modification represents a simple numerical change to the calculation of prices under the new charging methodology, and so therefore the intent of the solution should be fully supported by the Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> • This proposal keeps changes to the existing plans under the new charging methodology to a strict minimum, with only the discount level changing from 50% to 80% for storage site NTS points. The tariff network code states that the storage site discount should be at least 50% and does not specify an upper limit. Therefore Storengy believe that the proposed change to 80% is fully compliant with the code. No other changes are proposed and so Storengy believe that these proposals remain fully aligned to the existing plans for implementation in all other areas. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> • The new charging methodology (UNC Modification 0678A) introduces a substantial increase in costs for storage operators and storage users, raising major concern around the sustainability and viability of storage facilities in the UK for the future. This huge jump in costs will severely pressurise the commercial operations of storage facilities from the outset, potentially encouraging early decisions on possible mothballing and closure of facilities. Therefore Storengy believe that it is critical to reduce these costs
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			<p>to storage from the start of the implementation of the new charging methodology (01 October 2020).</p> <ul style="list-style-type: none"> • Storengy’s Understanding is that this Proposal exactly matches one of the Scenarios analysed by CEPA in the Impact Assessment of Modifications 0678/A/B/C/D/E/F/G/H/I/J. The “Postage Stamp with storage discount” Scenario modelled by CEPA already provides a comprehensive analysis of the implications of an 80% storage discount applied with the Postage Stamp charging regime introduced by UNC Modification 0678A. Storengy hope that this previous work can be used to contribute to a quick decision on UNC Modification 0727. • Storengy have also obtained Legal Opinion on the compliance of UNC Modification 0727 with EU Tariff Code legislation on this is provided alongside this representation and published on the Joint Office website: https://www.gasgovernance.co.uk/0727. <ul style="list-style-type: none"> • Do not believe that there are any errors in this Modification, and that it presents the major points that should be taken into account. • However, Storengy would like to highlight that the NTS capacity reserve prices published in June 2020 following Ofgem’s decision to implement UNC Modification 0678A represent a significant increase on the prices previously forecasted and analysed. Therefore the negative impact of Modification 0678A on storage facilities will be significantly higher than previously expected in the impact assessment. • It is noted that this Modification only looks to increase the storage discount on capacity reserve prices. This does not address the additional costs to storage users as a result of transferring existing booked entry capacity to customers. This Modification also does not account for the potential additional costs to storage operators through the revenue recovery charges, with an additional Modification expected to be raised to further address this issue. • Storengy highlight the additional analysis provided in the Appendix to this Modification.
Uniper	Support	<p>a) Positive b) Positive d) Positive e) Positive</p>	<ul style="list-style-type: none"> • Agrees with the Proposer that a capacity discount greater than the minimum permitted of 50% is required to properly reflect the benefits that gas storage brings to the transmission system. The benefits include helping to balance the system and smoothing peaks in demand and supply, thereby avoiding investment in the NTS. Importantly, it would also help minimise the “significant detrimental effect” that implementation of UNC Modification

			<p>0678A will have on the revenues of gas storage facilities, as identified by CEPA in their report supporting Ofgem’s recent NC TAR decision.</p> <ul style="list-style-type: none"> • Support 01 October 2020 implementation date. • No impacts and costs identified. • Satisfied with the Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none"> • Have no reason to believe that they are not compliant, however generally Shippers do not have the resources to seek legal opinions on every new UNC Modification Proposal and in particular those raised on urgent timescales. Expecting Shippers to undertake such detailed analysis also risks distorting the governance process if those Shippers with legal resources are able to influence the outcome, potentially to the detriment of Shippers that do not have access to such resources. Assessing compliance is ultimately the role of the Regulator and Uniper note that the Proposer has provided commentary and analysis to assist in this process. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none"> • Support 01 October 2020 implementation date or as soon as possible thereafter
<p>Vermilion Energy Ireland Ltd (Vermilion)</p>	<p>Oppose</p>	<p>a) None b) None d) Negative e) None Charging Relevant Objectives: a) None aa) None b) None c) None</p>	<ul style="list-style-type: none"> • In conformity with Vermilion’s responses to the Modification 0678 consultation, Vermilion supports the storage discount of 50% for Transmission Services capacity at the minimum level in the EU Tariff Code as this more closely reflects the principle of “the same service for the same tariff”. With the implementation of UNC Modification 0678A as per 01 October 2020, this 50% will be implemented. • Vermilion therefore oppose the increase of the storage discount to 80% as proposed in the Modification UNC 0727. • Suggest a very short lead time (1-2 months) could be managed.

			<ul style="list-style-type: none">• Vermilion does not foresee development nor ongoing costs associated with an increased storage discount.• No comments provided on the Legal Text. <p><u>Specific Consultation Questions:</u></p> <p>Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).</p> <ul style="list-style-type: none">• Vermilion notes that the 80% is within the range that is allowed according to the Tariff Network Code. <p>Q2: Respondents are requested to provide views on the proposed implementation date.</p> <ul style="list-style-type: none">• Vermilion opposes an increase of the storage discount to 80%. Vermilion supports the storage discount of 50%, as applicable from 01 October 2020 onwards, being at the minimum level in the EU Tariff Code as this more closely reflects the principle of “the same service for the same tariff”.• Nevertheless, if Ofgem approves this Modification, Vermilion would support the implementation date as proposed in the Modification.
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11 Panel Discussions

Discussion

The Panel Chair summarised that Modification 0727 (Urgent) proposes the inclusion of a higher discount rate of 80% for capacity purchased at storage sites, under the revised NTS Charging Methodology (in place from 01 October 2020). This is an increase from 50%.

Panel Members considered the representations made noting that, of the 14 representations received, 10 supported implementation, 1 offered qualified support, 1 provided comments and 2 were not in support. Of the 14 representations, 1 representation was received late.

The Proposer submitted a Legal Opinion alongside its supporting representation.

Potential impact on competition

An Observer was invited to speak and explained that other flexibility providers are negatively impacted by this Modification as the Modification makes the 'playing field' different for storage providers.

Panel Members noted that the option is always there for other flexibility providers (e.g. interconnectors, power stations) to raise a similar Modification.

Panel Members noted that this Modification is concerned with Storage and whether, as a consequence, there is distortion of the market.

A Panel Member noted that Storage sites provide other benefits, and therefore transportation to and from a Storage site could be seen as a different product.

Other Panel Members disagreed and believed that this was a feature of the product, stating that it is a function of the way a party delivers the product.

A Panel Member noted that CEPA, in its report for the Authority, recognised a detrimental impact on storage revenue, which this Modification is proposed to mitigate.

An Observer was invited to speak and noted that the CEPA report also noted the interplay between storage and interconnectors.

Potential benefits to end consumers

Some Panel Members noted that in times of system stress, storage provides another source of gas and that the gas is physically present within the Total System. There is also a risk that there may be an early closure of storage sites as a result of Modification 0678A. This Modification 0727 (Urgent) is proposing to mitigate against this.

Panel Members noted that diverse services associated with storage are used and that these may benefit the market as a whole, leading to positive impacts for the end consumer in terms of liquidity.

Effect on consumer bills

Panel Members noted that storage and all entry and exit users, will pay more as a result of this discount, noting that this is spread across a very large number of users.

Panel Members noted that Respondents, in the main, appeared to be happy with the *de minimus* risk premium associated with this Modification. The nature of storage is such that if it did not exist, National Grid would be required to invest further in the network to accommodate additional gas or run the risk of system constraint. Panel Members noted that Cadent's representation covers this point.

Additional questions placed into the Consultation

Q1: Respondents are requested to provide a view as to whether the solution provided within the Modification is fully compliant with the relevant legislation (including, but not limited to, Articles 28-32 of the Tariff Network Code).

A Panel Member noted that Uniper's Consultation representation included commentary relating to both compliance information, as well as on the legal opinion provided by the Proposer.

There was some concern from the Panel point of view as to how Panel Members should respond to this.

Some Panel Members confirmed that in their view, they were not in a position to comment on the legal opinion given.

Panel Members noted that in their view, it is the role of the Authority to consider the information given in the representations.

Q2: Respondents are requested to provide views on the proposed implementation date.

Some Consultation respondents supported the Modification, and these favoured the proposed implementation date 01 October 2020. Some Panel Members agreed with this.

This date is applicable because implementation at any other point, may be considerably later, with concomitant effects on the market.

Some Panel Members noted that previously, Ofgem has requested significant changes in methodology at the start of the Gas Year (when referring to Modification 0687A which is revising the entire charging methodology). Thus, implementation of Modification 0727 for 01 October 2020 would be in line with implementation of Modification 0678A giving a holistic change to the charging arrangements.

A Panel Member noted that the Gas storage year is April – March.

A Panel Member noted that implementation mid-year would therefore be in place for the new gas storage year, though this may not be a case for waiting.

Other Panel Members noted that with the implementation of Modification 0678A, the 50% minimum storage discount starts to apply from October 2020.

Panel Members noted a minimum of two months' notice is preferred prior to implementation, in order to give National Grid sufficient time to process the change.

Panel Members noted a respondent highlighted that the EU Tariff Code requires only 30 days' notice.

Consideration of the Relevant Objectives

Panel members noted that the Proposer had indicated a positive impact on Standard Relevant Objectives a), b), d) and e) and on Charging Relevant Objectives a), aa) b), and c).

Panel Members then considered each Relevant Objective in turn, beginning with the standard Relevant Objectives and then moving on to the Charging Relevant Objectives.

Standard Relevant Objectives

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

Panel Members agreed with the Proposer and many respondents that this Modification should have a positive impact on **Relevant Objective a)** relating to efficient and economic operation of the pipe-line system; because the role of storage provides some support to the Network in times of peak demand. Storage also benefits National Grid as a tool in balancing the system, providing an additional source of liquidity.

Relevant objective 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.

Some Panel Members agreed with the Proposer and many respondents that this Modification should have a positive impact on **Relevant Objective b)** relating to operation of the combined pipe-line system; because storage contributes to system balancing and can act as a “parking service” unique to storage located within a national network.

Some Panel Members noted that a positive impact on Relevant Objective b) is likely to be small, whereas the positive impacts on Relevant Objectives a) and d) are greater.

Relevant objective c) Efficient discharge of the licensee's obligations.

Panel Members agreed that consideration of this standard Relevant objective c) was not applicable for this Modification.

Relevant objective d) Securing of effective competition:

(i) between relevant Shipper Users;

(ii) between relevant suppliers; and/or

(iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant Shipper Users.

Some Panel Members agreed with the Proposer and many respondents that this Modification should have a positive impact on **Relevant Objective d)** relating to competition; because the Modification can act to mitigate the risk of storage closures which also supports liquidity in the market and provides access to maximum sources of flexibility.

Panel Members noted that the implementation of this Modification was unlikely to be a business case for new storage facilities in its own right.

Panel Members noted representations which believed there would be negative impacts on competition, for example those from the interconnector. The remedy suggested by Panel Members would be to raise an equivalent Modification, where the impact was felt by a potential Proposer to be significant.

Relevant objective 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.

Some Panel Members agreed with the Proposer and many respondents that this Modification should have a positive impact on **Relevant Objective e)** relating to domestic customer supply security standards; because storage acts to provide a small Security of Supply benefit through the provision of

storage facilities; providing price stability and, reducing price volatility as they respond to market price signals.

Relevant objective f) Promotion of efficiency in the implementation and administration of the Code.

Panel Members agreed with the Proposer that consideration of this standard Relevant objective f) was not applicable for this Modification.

Relevant objective 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.

Panel Members agreed that consideration of this Standard Relevant objective g) relating to compliance was not applicable for this Modification as this is covered under Charging Relevant Objective e) – see below.

Charging Relevant Objectives

Charging Relevant Objective 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;

Panel Members believed that the impact on this Relevant Objective is of lower importance than competition - Charging Relevant Objective c).

Charging Relevant Objective 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;

Panel Members agreed that consideration of this Charging Relevant Objective aa) was not applicable for this Modification.

Charging Relevant Objective b) That, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;

Panel members believed that this Relevant Objective is of lesser importance for this Modification.

Relevant objective 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;

Some Panel Members agreed with the Proposer and many respondents that this Modification should have a positive impact on charging **Relevant Objective c)** relating to competition; because the Modification can act to mitigate the risk of storage closures, which also supports liquidity in the market and gives access to maximum sources of flexibility.

Panel Members noted that the implementation of this Modification was unlikely to be a business case for new storage facilities in its own right.

Panel Members noted representations which believed there would be negative impacts on competition, for example those from the interconnector. The remedy suggested by Panel Members would be to raise an equivalent Modification, where the impact was felt by a potential Proposer to be significant.

Relevant objective 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).

Panel Members agreed that consideration of this charging Relevant objective d) was not applicable for this Modification.

Relevant objective 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.

Panel Members noted that a discount greater than 50% is permitted under the EU TAR.

Determinations

Panel Members voted unanimously that Modification 0727 (Urgent) does not have an SCR impact.

Panel Members voted unanimously to recommend implementation of Modification 0727 (Urgent).

12 Recommendations

Panel Recommendation

Panel Members recommended:

- that Modification 0727 (Urgent) should be implemented.

13 Appendix 1: Summary Analysis

Comparison of impact of Storage Discount

This Modification sets the Storage Discount at 80%. Table A1 below compares the costs to storage of operating under a number of charging scenarios: UNC Modification 0678 (CWD with a 50% discount) v UNC Modification Proposal 0678A (PS with a 50% discount) and Modification Proposal 0727 (an 80% discount (CWD with an 80% discount and PS with an 80% discount)).

In order to calculate annual costs, storage volumes for each facility have been stated and an assumed cycling frequency, based on historical data has been computed (volumes oftaken and entered at the storage site compared to storage volume). For the purposes of calculating Exit costs, it is assumed that Users of storage acquire Off-Peak Exit Capacity.

Table A1: Comparison of Entry and Exit costs to storage

Entry	Storage Volume		NTS Bookings		0678 (CWD 50%)	0678A (PS 50%)	CWD 80%	PS 80%
	WGV	WGV	Cycling	Cycling	GY 20/21	GY 20/21	GY 20/21	GY 20/21
	mcm	GWh	Times	TWh	£/annum	£/annum	£/annum	£/annum
Stublach	400	4,400	4	17.6	2,534,400	3,766,400	1,020,800	1,531,200
Holford	160	1,760	4	7.0	1,013,760	1,506,560	408,320	612,480
Hill Top		374	1	0.4	53,482	80,036	21,318	32,538
Hornsea		2,623	2	5.2	687,331	1,122,815	278,080	456,472
Aldbrough (Garton)		2,100	2	4.2	533,397	898,796	214,199	365,398
Hatfield Moor	70	770	2	1.2	142,065	247,170	56,595	100,485
Humbley Grove (Barton Stacey)	300	3,300	2	5.0	866,250	1,059,300	351,450	430,650
TOTAL				40.6	5,830,685	8,681,077	2,350,762	3,529,223

Exit	Storage Volume		NTS Bookings		0678 (CWD 50%)	0678A (PS 50%)	CWD 80%	PS 80%
	WGV	WGV	Cycling	Cycling	GY 20/21	GY 20/21	GY 20/21	GY 20/21
	mcm	GWh	Times	TWh	£/annum	£/annum	£/annum	£/annum
Stublach	400	4,400	4	17.6	1,249,600	1,355,200	510,400	563,200
Holford	160	1,760	4	7.0	492,800	542,080	204,160	225,280
Hill Top		374	1	0.4	26,180	28,798	10,472	11,968
Hornsea		2,623	2	5.2	309,561	404,004	125,923	167,898
Aldbrough (Garton)		2,100	2	4.2	243,599	323,398	100,800	134,399
Hatfield Moor	70	770	2	1.2	68,145	88,935	27,720	36,960
Humbley Grove (Barton Stacey)	300	3,300	2	5.0	450,450	381,150	183,150	158,400
TOTAL				40.6	2,840,335	3,123,565	1,162,625	1,298,105

In total, for the PS RPM + 80% discount, the cost would be £4,827,328. Modification 0678A (PS) which includes a 50% Storage Discount would result in much higher costs (around 2.5 times), namely £11,804,642.

Based on National Grid's Sensitivity Model 0678 v3.1, the revenue recovered from storage related capacity as a result of an increase in the discount from 50% to 80%, represents under 1% of Maximum Allowed TO Revenue for Gas Year 2020/21 (note Allowed Revenue is £756m).