

Representation - Draft Modification Report

UNC 0621; 0621A; 0621B; 0621C; 0621D; 0621E; 0621F; 0621H; 0621J; 0621K*; 0621L

Amendments to Gas Transmission Charging Regime

*** Amendments to Gas Transmission Charging Regime and the treatment of Gas Storage**

Responses invited by: 5pm on 22 June 2018

To: enquiries@gasgovernance.co.uk

Representative:	Roddy Monroe
Organisation:	Gas Storage Operators' Group
Date of Representation:	22 June 2018
Support or oppose implementation?	<p>0621 - Oppose</p> <p>0621A – Qualified Support</p> <p>0621B – Qualified Support</p> <p>0621C – Qualified Support</p> <p>0621D - Qualified Support</p> <p>0621E - Oppose</p> <p>0621F – Oppose</p> <p>0621H – Oppose</p> <p>0621J – Qualified Support</p> <p>0621K – Support</p> <p>0621L - Oppose</p>
Expression of Preference:	<p><i>If either 0621; 0621A; 0621B; 0621C; 0621D; 0621E; 0621F; 0621H; 0621J; 0621K or 0621L were to be implemented, which <u>ONE</u> modification would be your preference?</i></p> <p>0621K</p>

Standard Relevant Objective:

0621
a) None
c) Positive
d) Negative
g) Positive

0621A
a) Positive
c) Positive
d) Positive
g) Positive

0621B
a) Positive
c) Positive
d) Positive
g) Positive

0621C
a) Positive
c) Positive
d) Positive
g) Positive

0621D
a) Negative
c) Positive
d) Negative
g) Positive

0621E
a) None
c) Positive
d) Negative
g) Positive

0621F
a) Negative
c) Positive
d) Negative
g) Negative

0621H
a) None
c) Positive
d) Negative
g) Positive

0621J
a) Positive
c) Positive
d) Positive
g) Positive

0621K
a) Positive
c) Positive
d) Positive
g) Positive

0621L
a) None
c) Positive
d) Negative
g) Positive

Charging Methodology Relevant Objective:	0621 a) Negative aa) Negative b) Negative c) Negative e) Positive
	0621A a) Positive aa) Positive b) Negative c) Positive e) Positive
	0621B a) Positive aa) Positive b) Negative c) Positive e) Positive
	0621C a) Positive aa) Positive b) Negative c) Positive e) Positive
	0621D a) Negative aa) Positive b) Negative c) Positive e) Positive
	0621E a) Negative aa) Negative b) Negative c) Negative e) Positive
	0621F a) Negative aa) Negative b) Negative c) Negative e) Negative
	0621H a) Negative aa) Negative b) Negative c) Negative e) Positive
	(continued overleaf)

Charging Methodology Relevant Objective (continued):	0621J a) Positive aa) Positive b) Negative c) Positive e) Positive
	0621K a) Positive aa) Positive b) Negative c) Positive e) Positive
	0621L a) Negative aa) Negative b) Negative c) Negative e) Positive

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

GSOG is concerned that all of the proposals will have a detrimental impact on UK gas storage. We have identified those proposals which are least impacting, with Mod 621K the only one which results in charges being maintained at close to current levels.

We note that all of the proposals are far-reaching and beyond the minimum requirements required to achieve compliance with the EU Tariff Code. We understand that the Charging Review was intended to be holistic and was scoped to allow for a comprehensive examination of the GB charging methodology and associated tariffs, however, given the lack of analysis presented in the workgroup report we are concerned that industry has been presented with a range of sub-optimal solutions.

GSOG recommends that the Panel sends the modification report back to the workgroup to enable fuller analysis to be prepared. In addition, we recommend that a counterfactual scenario is developed which sets out the basis for a “minimum EU TAR compliance” solution. This will ensure that the 621 proposals are tested against a more meaningful benchmark (not the current regime, as is the case in the analysis presented) and that the solution taken forward is one which yields the greatest benefits to UK customers.

0621 (Oppose)

The proposal does not account for the benefits/costs of storage facilities such as security of supply, managing price volatility through matching demand and supply, reducing capacity requirements for the network. For this reason the proposal is not cost reflective and represents a cross subsidy from storage Users to other Users of the system.

0621A (Qualified Support)

This proposal includes an “allowance” for the general contribution to system flexibility and security of supply provided by storage facilities by including an 86% capacity charging discount for storage facilities. The method employed to determine the level of the 86% discount can be

found here https://www.gasgovernance.co.uk/sites/default/files/ggf/book/2017-12/WWA_GSOGMod621Alemate_coretextv2.0.pdf

Further, the proposed protection of all storage capacity holdings from the application of a Revenue Recovery Charge is consistent with the requirement to avoid double charging and is consistent with the conclusions stated by Ofgem in its Gas Transmission Charging Review. Implementation of this proposal would limit the imposition of further costs onto storage which provides significant benefits to Users and customers. At a time where storage owners are subject to significant economic pressures, any unjustified increases in transmission costs will seriously undermine the prospects for operating existing or developing new storage capacity in GB.

Despite Modification 0621A having been proposed by a GSOG member (Storengy UK) we feel that we can only give it “Qualified Support” as it only partially reflects the benefits of storage facilities and does not address all of the problems for the storage industry created by the original proposals of Modification 0621.

0621B (Qualified Support)

The use of obligated capacity levels as a proxy for FCC on an ongoing basis is reasonable and will direct costs, via the CRRC to those Users which flow gas on the system. A greater reliance on commodity charges is consistent with a unconstrained system as investment signals are not required. A unit price commodity charge ensures there are no issues with market entry and that cost recovery is shared without any geographical reference. On this basis it is similar to postage stamp without imposing an unnecessary and complex capacity booking regime. In addition, the proposal properly accounts for the costs/benefits applicable to storage facilities.

0621C (Qualified Support)

The establishment of an OCC product which is consistent with the CWD model and capacity booking driven revenue recovery is a sensible way forward. In addition, the proposal properly accounts for the costs/benefits applicable to storage facilities.

0621D (Qualified Support)

The CWD model, including in the case where the impacts of distances are dampened as proposed in this mod, requires that an OCC product is required to address the fact that capacity prices generated at exit points close to entry points are high. This is counterintuitive as gas offtaken at these exit points will be delivered at nearby entry points meaning that the point to point characteristics of the OCC will derive charges which are more cost reflective. In addition, the application of OCC will address inefficient bypass. Given this mod recommends the removal of OCC it cannot be fully supported as it engenders a degree of cross-subsidisation and as a result is less cost reflective than others. It does, however, propose an 86% discount at storage points and therefore properly accounts for the costs/benefits applicable to storage facilities.

0621E (Oppose)

The proposal does not account for the benefits/costs of storage facilities such as security of supply, managing price volatility through matching demand and supply, reducing capacity requirements for the network. For this reason the proposal is not cost reflective and represents a cross subsidy from storage Users to other Users of the system.

0621F (Oppose)

The proposal does not account for the benefits/costs of storage facilities such as security of supply, managing price volatility through matching demand and supply, reducing capacity

requirements for the network. For this reason the proposal is not cost reflective and represents a cross subsidy from storage Users to other Users of the system. In addition we do not believe the proposal to discount capacity at interconnection points is compliant with the EU Tariff Code as it is not the case that the GB is isolated, nor is it reasonable to make direct comparisons between interconnectors and storage (for reasons described in the response to the Ofgem questions below)

0621H (Oppose)

The proposal does not account for the benefits/costs of storage facilities such as security of supply, managing price volatility through matching demand and supply, reducing capacity requirements for the network. For this reason the proposal is not cost reflective and represents a cross subsidy from storage Users to other Users of the system.

0621J (Qualified Support)

The application of the Postage Stamp methodology is a reasonable basis for allocating revenues (and therefore costs) to Users of the system particularly where the system is unconstrained and investment signals are not required. Further, it properly accounts for the costs/benefits applicable to storage facilities

0621K (Support)

The proposal ensures that charges at storage points are cost reflective and prohibit National Grid from recovering excessive revenues from storage Users. As storage flows are bi-directional and provide benefits to the system (and its Users and customers) in the form of market price dampening, security of supply and reduced investment in the NTS there is no justification for imposing a reserve price on Off-Peak capacity. This form of capacity product should only attract a positive reserve price in the event that the cost of its provision is positive and it can be used as a direct substitute for firm capacity (with little or no risk of substitution). The bi-directional nature of storage facilities, combined with their varied and significant contributions to consumer welfare, mean that a positive Off-Peak reserve price would result in double counting of revenues for National Grid. This is primarily due to the fact that NTS pipelines are constructed in response to an entry capacity price signal which fully compensates National Grid for the delivery of the pipeline, the fact that it can be used on a bi-directional basis which benefits consumers means that a charge for Off Peak capacity will mean that National Grid is recovering revenue from infrastructure which is/had already been paid for and at a charge which exceeds the zero marginal cost for providing the service.

0621L (Oppose)

The proposal does not account for the benefits/costs of storage facilities such as security of supply, managing price volatility through matching demand and supply, reducing capacity requirements for the network. For this reason the proposal is not cost reflective and represents a cross subsidy from storage Users to other Users of the system.

Implementation: *What lead-time do you wish to see prior to implementation and why? Please specify which Modification if you are highlighting any issues.*

Prior to Implementation

We would wish to see:

- 1) An early decision made on proposals as the market needs clarity for the 2019/20 Gas Year (and 2019/20 Storage Year) as soon as possible.

- 2) A full impact assessment and analysis of any proposals before any changes are decided.

A lead time between decision and effective date of 12-18 months to allow businesses suitable time to plan and prepare for any potential changes.

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

Consequences for the market of higher cost for Storage

All proposals will result in higher costs for UK storage facilities and is likely to result in:

- Reduced operability, reduced ability to support the network balance efficiency, and reduced security of supply.
- Operation of UK storage sites being unprofitable and unviable, resulting in future site closures, and creating a barrier for future investment in existing and new storage facilities.
- Loss of competitiveness of UK storage sites against continental facilities, and an increase in reliance on foreign facilities and interconnectors to meet UK demand.

Changes in Market Behaviour

The new proposals are also likely to see changes in behaviour across the industry. In storage we would be likely to see a change in booking strategies towards a minimisation of costs through short-term booking. This again is likely to place restrictions on storage facilities in being able to react to market needs, increasing price volatility, increasing risks on supply, and increasing network maintenance costs and potentially overall network capacity requirements.

New IT requirement for seamless NTS capacity booking

Current National Grid systems for booking capacity at short notice will need a full overhaul to allow flexible booking, as they currently support options to flow with low premiums (capacity fee) and higher strike price (commodity fee), whereas current proposals will move to options with higher premiums (capacity) and lower strike price (commodity). At the time of writing no IT development cost indications have been provided by Xoserve

Legal Text: *Are you satisfied that the legal text will deliver the intent of the Solution? Please specify which Modification if you are highlighting any issues.*

In the cases of Mod 621A and 621K in Section B 2.11.7 as provided below, we wish to ensure that it correctly reflects the intention of the modifications. In both cases where capacity is traded, whether that capacity is “historical” or “non-historical” it will not be subject to any Revenue Recovery Charge. We understand that this is not the case with Modification 621 (and others) where Historical Storage Capacity will, when transferred to another User, be exposed to this charge.

“2.11.7 The Entry Transmission Services Revenue Recovery Charge payable by a User or National Grid NTS in respect of each Day will be determined for each Aggregate System Entry Point, excluding Storage Connection Points, as the User's Fully Adjusted Available NTS Entry Capacity, multiplied by the Applicable Daily Rate for such charge as determined in accordance with Section 3 of the NTS Transportation Charging Methodology and set out in the Transportation Statement”

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

Please specify which Modification your views relate to.

1. *Do you believe there is specific issues that should be considered by Ofgem's Regulatory Impact Assessment?*

The IA should look more broadly at the consequences for a number of areas, with particular reference to the changing pricing levels and structures at storage points:

- Comparison of current proposals with existing arrangements, looking at the impacts on industry, consumers and market behaviours.

As stated as earlier we also recommend that analysis is undertaken to assess each of the modifications against a default, minimum EU TAR compliance scenario, where the changes, primarily, will be directed at IPs only.

- Reduced operations and potential closure of storage facilities (or no investment in new or expansion of existing storage facilities) and the consequential impacts on gas prices, balancing costs, security of supply and costs of operating and reinforcing the system. These impacts should be translated into costs to consumers. Further, any secondary impacts on power prices and the resultant increase to consumer costs should be examined.

2. *The rationale in the report for having an interim period and using the obligated capacity as the Forecasted Contracted Capacity (FCC) is to avoid significant changes to charges and have a period to understand how booking behaviour changes. How does this compare to having two structural changes to charges (one at the start of the interim period and another at the enduring period)?*

The transition period has been proposed in order to ensure that the charges which are set in the enduring period are accurate, not resulting any significant under or over recoveries from the outset. The transition period provides National Grid with a period of grace during which it can monitor changes to User booking activities, in response in particular to changing price levels of firm and interruptible capacity products, which in turn should enable a more accurate assessment of the FCC.

Secondly, the changes in Oct 2019 are less significant than those planned for Oct 2021 (or Oct 2022 under Mod 621E). An immediate step change to the enduring solution in Oct 2019 would not only cause issues for the determination of the FCC, but also provide very little time for Users to understand and accommodate the more significant step change (as the decision on the mods is not expected until around March 2019).

Thirdly, at this time the settlement of RIIO-T2 is some way off meaning that the modelling undertaken by National Grid and the industry is based on some "heroic" assumptions regarding allowed revenues and potentially baseline quantities. A second step change will occur in 2021 as a result of the commencement of RIIO-T2 and foresight of the change will only be known to Users after implementation of this modification. The proposed delay of the implementation of the enduring regime will provide industry with sufficient time to assess and plan for the more drastic changes which will come about due to the combined implementation of capacity –based charges and RIIO-T2 outputs. However, with limited scope for changes in current Modification 0621 proposals, and no connect with RIIO-2, there will be more disjointed changes, no joined up solution, more uncertainty, and suspected more dramatic changes from the current regime.

3. *What (if any) consequences do you see from 'interim contracts' being allocated at QSEC and AMSEC auctions in 2019 given the timings of these auctions in the UNC and possible*

date of Ofgem decision on UNC621? What options are there to deal with these consequences and what impact would these options have?

The timings of the auctions in relation to the Ofgem decision are likely to make it difficult for businesses to plan for the long term and therefore take part in the auctions. With uncertainty around what the Ofgem decision will be, means that potential auction participants may have to make bidding decisions without knowing the likely impact of these decisions in the longer term. The proposals to go ahead with these auctions under the current charging methodology, and to include any contracts issued as a result of these auctions as 'interim contracts' under the new charging methodology helps to provide a little more certainty to potential bidders about the longer term impacts of their auction decisions.

The main option to deal with these consequences is for Ofgem to provide more clarity for the 2019/20 Gas Year by issuing a "minded to", or ideally a clear decision on charging methodology proposals prior to the start of the auctions. If a decision is not expected from Ofgem in good time for businesses to carry out daily business, longer term planning, and develop clear strategies for the auctions, then a dulling down of proposed changes or delay in proposed changes may help in encouraging potential auction participants to take part in the auctions and commit to the industry for the longer term. With potential large scale changes due for implementation only a short period of time after the auctions then any increased certainty or extension of implementation timescales could help to encourage activity at the auctions.

- 4. In addition, businesses would welcome an early decision for the 2019/20 Gas Year to be able to sell their own products. Do you consider the proposals to be compliant with relevant legally binding decisions of the European Commission and/or the Agency for the Co-Operation of Energy Regulators?*

Yes, all current proposed modifications are compliant with EU and ACER regulations, as all current proposals go far beyond both current and future proposed regulations. The implementation of any of the proposals will see the UK implementing, across all Entry and Exit Points, an EU regulation that was solely applicable to IPs.

- 5. In what way do you consider the reference price methodologies proposed (Capacity Weighted Distance (CWD), CWD using square root of distance and Postage Stamp) to be cost reflective and meet the criteria in Article 7 of TAR?*

It is our opinion that a truly cost reflective charge is not achievable and other considerations such as impacts on Users, discrimination between Users, simplicity, transparency and stability should be considered in the round. It is our belief that CWD and Postage Stamp are sufficiently cost reflective and provide greater benefits to User and customers when compared to LRMC.

In relation to the square root of distance CWD the same arguments apply as above.

For completeness, the LRMC methodology also contains a number of limitations and cannot be regarded as any more, or any less cost reflective than either CWD or Postage Stamp. LRMC uses marginal investment costs as a proxy for setting charges, which it could be argued, have some relevance where National Grid is investing in the NTS. In reality the NTS is a static system, in which costs have already been incurred and, therefore, are historical in nature. Combining the use of forward looking marginal costs with a changing flow pattern (updated on an annual basis) means that Users of the NTS are not only paying vastly different fees for accessing and using the system, but also the level of the fees changes year on year depending on where each entry point sits in the

Merit Order. This is counterintuitive when dealing with a static system which will not expand to accommodate annual changing flow patterns.

.Article 7 includes six criteria, one of which relates to cost reflectivity. It is arguable as to whether the criteria are consistent and can all be achieved to the same degree. Certainly there could be a tension between achieving cost reflectivity while ensuring that there is no discrimination or cross-subsidisation. Both the CWD and Postage Stamp methodologies are recognized approaches to setting charges and can be interpreted as being cost reflective. In both cases, the basic principle is that the allowed revenue set by Ofgem is an accurate reflection of historical and future costs incurred by National Grid for the purposes of developing and maintaining the NTS. CWD incorporates a proxy for distance which loosely allocates more costs to points which are located at distances further than the average transportation distance. The main criticism of CWD is that network distances are not related to flow distances, unlike the LRMC methodology (which has its own weaknesses). This means that the “true” distances of flows between entry points and exit points is not considered in CWD (or indeed Postage Stamp). However, both CWD and Postage stamp are cost reflective insofar as they provide a reasonable basis for allocating costs (revenues) across Users, but as is the case with every methodology they cannot be regarded as truly cost reflective.

6. *The proposals have different combinations of specific capacity discounts for storage sites and bilateral interconnection points. In what way do you consider the different combinations facilitate effective competition between gas shippers and gas suppliers?*

Discounts for particular connection points should, as reasonably as possible, reflect the costs/benefits which the connection brings to the system and its Users. The 86% discount level for storage proposed in a number of the proposals is based on a reasonable determination of these costs/benefits, and by no means provides a complete solution for the storage industry. On the basis that this level of discount is reasonable and therefore the costs for using such capacity more accurately reflect the associated costs and benefits then this will facilitate effective competition. In the event that the discount is too low, then the cost paid by storage users will be too high resulting in cross-subsidisation and discrimination. Economic theory would support the assertion that such an outcome has distortive effects on the operation of the market and will damage competition.

In terms of interconnectors, the justification for a discount is far harder to justify as the costs/benefits of their existence and operation can be skewed as they connect two or more markets. Where costs/benefits are shared across networks, unless there are arrangements in place between TSO's, charges and therefore discounts cannot be set in any single network to properly account for externalities. In addition, the application of discounts for interconnectors would contribute to making UK storage assets less competitive with storage facilities on the continent, making the UK more reliant on foreign assets for supplies.

Unlike storage, interconnectors allow Users to capture arbitrage opportunities across two or more markets. Storage is embedded in a network and responds singularly to price signals in the local market and as such the benefits which accrue from the operation of the storage, such as providing flexibility and dampening peak prices are directly captured by local (national) Users and customers. Interconnectors cannot be relied upon to respond to local (national) needs, in fact, depending on external market price signals may operate counter to the benefit of local needs.

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

Notwithstanding the significant contributions made by Storengy and WWA to the process, via the submission of numerous papers and contributions at the workgroup meetings, we believe that the contributions made by storage to consumer welfare had not been considered by the workgroup (and the report) in a satisfactory manner. Consumer welfare is multi-layered and crosses over a number of the UNC and charging objectives, but boil down to implementing a charging methodology which limits or reduces costs and enhances security.

In the case of costs, the workgroup report identifies the NTS costs which will be incurred by customers (taking into account the modelling assumptions), however, it fails to quantify other cost impacts. In particular, the increased costs to gas storage are significant across all of the modifications, with the greatest impact being on NTS Exit costs (storage injections) in the nearer term. An examination of the National Grid analysis for 2021/22 shows that the range of NTS Exit cost increases is between approx. £600k and £4.6m p.a. during the enduring period, noting that currently most, if not all storage Users acquire zero-priced Off Peak capacity and are not exposed to any NTS commodity charges. If it is assumed that storage operators absorb these costs, then at the higher level of NTS Exit Costs of £4.6m p.a this would equate to an additional average variable cost for storage operators of 0.35 p/th (based on 3 storage cycles p.a.). This additional cost would limit storage activity (as gas spreads would need to be at 0.35 p/th greater, excluding the additional entry costs) which would result in consumers paying more for gas.

If NTS Entry costs are also added for periods beyond the modelled year above, noting that in 2021/22 storage users have acquired significant volumes of "Historical Entry Capacity", then based on Storengy analysis <https://www.gasgovernance.co.uk/ntscmf/170717>, the total increase in variable costs would be around 0.8 p/th. This will compromise the ability of storage operators to participate in the market and at best would limit flows in and of storage (reduced cycling) and at worst would lead to the closure of facilities. In both scenarios there would be costs to consumers as the market price for gas would be inflated and more volatile. Beyond the impact on gas prices, given the strong linkage between gas and power prices, any inflation in gas prices will translate into power price increases. The linkage between the two is likely to become tighter in future years, as gas generation performs the role of marginal supplier. Certainly we would expect, at the very least, for Ofgem to consider the wider impacts of gas and power price movements on consumers in its Impact Assessment.

Finally, the workgroup report fails to investigate the security of supply benefits afforded by storage. Based on the analysis provided in this section and in the next section of this response, the functions performed by storage are multi-faceted and generally undervalued. In National Grid FES 2017 document the impact of storage closure is considered in accordance with its demand scenarios. It concludes that in two of the scenarios additional capacity would be required to be developed to meet the N-1 test and in all scenarios there would be increased complexity (and we assume cost) in operating the NTS

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

Before committing to any changes we recommend:

- Giving early visibility to the market of implications for the 2019/20 Gas Year.
- Assessing the impact of proposed changes to the existing arrangements.
- Provide a suitable lead time between decision and effective date for businesses to be able to plan and prepare for any proposed changes.

0621A

The distributional impacts of Mod 621A are minimal and far outweighed by the benefits generated by storage. At entry, the changes proposed in Mod 621A result in no changes to the revenue recovered from storage during the transition period and an increase of @£218k p.a. compared to the current arrangements (modelled flows). When compared to Mod 621, again there are no changes to revenues recovered from storage during the transition phase and a reduction of @£560k p.a. in the enduring phase.

At exit, Mod 621A recovers @£2.5m p.a. less from storage compared to the current arrangements (modelled flows) and @£1.8m less than Mod 621 during the transition phase. In the enduring phase, revenues are @£1.8m less at storage compared to the current arrangements and @£3.2m less compared to Mod 621.

Considering the total allowed revenues of @£800m during the transition phase and @£850m during the enduring phase the reductions in revenues collected from storage as a result of Mod 621A are immaterial and will not unduly burden costs onto other Users. On the flip-side, if these cost reductions were imposed on storage, they would certainly result in lower churn rates and seriously undermine the viability of operating storage facilities in future. The impacts are described in detail in Storengy's paper

<https://www.gasgovernance.co.uk/sites/default/files/ggf/2018-04/MOD%20621A%20-%20Storengy%20UK%20draft%20for%20Workgroup%20Report%20vfinal.pdf>. In short, the addition to storage operator variable costs caused by Mod 621 would limit the ability of storage Users to access price opportunities and diminish the value of acquiring and using gas storage.

These findings are supported by the under-recovery analysis which indicates that under-recoveries are very close to those modelled for Mod 621, which both show significant reductions in under-recoveries at entry and exit in the enduring period, compared to the current arrangements (modelled flows)

Further, in papers submitted by Storengy and WWA additional observations and analyses have been provided to reinforce the proposals set out in Mod 621A. In summary, the papers state the following:

- Storage flows coincide with system demands which in turn provide price benefits (and balancing cost benefits) to Users and National Grid. Storengy estimates that the reduction in balancing costs generated by storage operations saves GB customers around £122m p.a.
- Storage contributes to UK security of supply, which is understood by many commentators including the EU Commission to be external to storage operators in the form of a public good. The societal benefit is three-fold: firstly through reduced overall gas prices to consumers; secondly, by dampening price market price volatility (providing in combination with the first point, "price security"); and finally, with the GB gas market becoming more import dependent, storage provides a level of guaranteed gas supplies which reinforces physical security of supply
- Storage provides benefits to the Transmission Operator by reducing network investment costs as recognised by CEER and numerous other market experts. These investment cost savings are likely to be in pipelines and compressor infrastructure and based on analysis produced by independent consultants could be anywhere between £40m to £140m p.a. for GB.

0621K

The impacts of this modification are comprehensively commented upon in the text of the modification proposal and are confirmed by the analysis produced by National Grid. The

combined impact of an 86% discount on capacity prices and a 100% discount for Off-Peak capacity results in an increased cost to non-storage Users of approx. £1.15m p.a. in the enduring regime (when compared with the current regime).

Based on analysis carried out by WWA and Storengy, which is cited in the Modification Report and summarised to some degree in this report, the costs incurred by non-storage Users will be greatly exceeded by the wider benefits provided by gas storage. As discussed previously, the benefits are broader than those quantified in the supporting papers and should be assessed as part of the Ofgem Impact Assessment e.g. power price and security of supply impacts.

The reduction in the cost of Off-Peak capacity will better enable storage facilities to refill quickly following demand peaks, allowing more opportunity to quickly support future peaks in demand.