












UNC Modification		At what stage is this document in the process?
<h1>UNC 0621:</h1> <h2>Amendments to Gas Transmission Charging Regime</h2>		<div>01 Modification</div> <div>02 Workgroup Report</div> <div>03 Draft Modification Report</div> <div>04 Final Modification Report</div>
<p><b>Purpose of Modification:</b></p> <p>The purpose of this modification proposal is to amend the Gas Transmission Charging regime in order to better meet the relevant charging objectives and customer/stakeholder provided objectives for Gas Transmission Transportation charges and to deliver compliance with relevant EU codes (notably the EU Tariff Code).</p>		
	<p>The Proposer recommends that this modification should be assessed by a Workgroup</p> <p>This modification will be presented by the Proposer to the Panel on 15 June 2017. The Panel will consider the Proposer's recommendation and determine the appropriate route.</p>	
	<p>High Impact:</p> <p>Shippers and National Grid NTS</p>	
	<p>Medium Impact:</p> <p>N/A</p>	
	<p>Low Impact:</p> <p>N/A</p>	

Contents		?	Any questions?
1	Summary	3	Contact: Joint Office of Gas Transporters
2	Governance	3	 <a href="mailto:enquiries@gasgovernance.co.uk">enquiries@gasgovernance.co.uk</a>
3	Why Change?	3	 0121 288 2107
4	Code Specific Matters	4	Proposer: Laura Johnson
5	Solution	4	 <a href="mailto:laura.johnson@nationalgrid.com">laura.johnson@nationalgrid.com</a>
6	Impacts & Other Considerations	5	 01926 656160
7	Relevant Objectives	11	Transporter: Colin Williams
8	Implementation	13	 <a href="mailto:colin.williams@nationalgrid.com">colin.williams@nationalgrid.com</a>
9	Legal Text	13	 01926 655916 or 07785 451776
10	Recommendations	13	Systems Provider: Xoserve
			 <a href="mailto:commercial.enquiries@xoserve.com">commercial.enquiries@xoserve.com</a>
Timetable			
<b>The Proposer recommends the following timetable:</b>			
Initial consideration by Workgroup	07 July 2017 (NTSCMF)		
Workgroup Report presented to Panel	21 December 2017		
Draft Modification Report issued for consultation	21 December 2017		
Consultation Close-out for representations	01 March 2018		
Final Modification Report available for Panel	05 March 2018		
Modification Panel decision	15 March 2018		

## 1 Summary

### What

This modification proposes to introduce a new Gas Transmission Charging regime that produces stable and predictable transportation charging and is compliant with the forthcoming EU Tariff Code.

### Why

The Transportation Charging Methodology currently in place for the calculation of Gas Transmission charges, and the methodology to recover TO and SO revenue through Entry and Exit charges, have been in place for a number of years. Whilst there have been some changes in the last ten years, the basic approach to calculating Entry and Exit Capacity charges and the approach to revenue recovery has not substantially changed.

A critique of the current Long Run Marginal Cost (LRMC) methodology has identified that it is too volatile, unpredictable and does not provide stability of charges for Users.

### How

This modification proposes to move from a Reference Price Methodology (RPM) that calculates the capacity prices using the LRMC method to one that is based on a Capacity Weighted Distance (CWD) approach. It also proposes to review other aspects of the charging framework to consider if change is necessary to better meet the required objectives.

It introduces some terminology from the EU Tariff Code, specifically Transmission Services Revenue and Non-Transmission Services Revenue. These will map across to TO and SO revenues thereby not changing the total revenue to be collected through charges. Therefore the overall revenue that the Transmission Charges will recover, in total, will remain the same and the more material change will be amendments to the charging methodologies that will recovery of the allowed revenues from NTS network Users through the NTS charges.

## 2 Governance

### Justification for Authority Direction

This modification proposal is recommended to be sent to the Authority for direction as it is likely to have a material effect on commercial activities relating to the shipping, transportation and supply of gas because, if implemented, it is likely to have a material impact on the allocation of charges across NTS networks Users.

### Requested Next Steps

This modification should:

- be assessed by a Workgroup

### 3 Why Change?

The methodology which is currently in place for the calculation of Gas Transmission charges, and the methodology to recover TO and SO revenue through Entry and Exit charges have been in place for a number of years. Whilst there have been some changes in the last ten years, the basic approach to calculating NTS Entry and Exit Capacity charges and the approach to revenue recovery arrangements have not substantially changed. What has been seen is change in the patterns of booking behaviours, and the impact on the charges as a result due to the interactivity inherent within the methodology that were not anticipated.

As a result of changing behaviours, such as increased uptake in short term zero priced capacity, there is an increase in reliance on commodity charges to recover TO revenue. Other charges, such as the NTS Optional Commodity charge (also referred to as “Shorthaul”) have also seen a significant increase in its use, which has impacted on other charges in a way that was not originally envisaged.

The current RPM (including the adjustments applied in order to calculate capacity charges) produces charges that are volatile and unpredictable. This causes challenges for investment decisions and in predicting operational costs for connected parties year on year, and as such is a key area to be addressed. The proposed new RPM resolves this issue by narrowing the range of prices and as such making them more predictable.

As a result of changing the RPM, any adjustments, discounts and other charges must be reviewed in order to avoid unintended consequences and to ensure a clear impact assessment can be carried out on the total impact of these adjustments, discounts and other charges to NTS customers and to the end consumer.

This modification proposal considers EU compliance with the EU Tariff Code which has a deadline to implement the changes of 31 May 2019. Price changes would apply from 1 October 2019.

#### For information only:

As an overall package this modification proposal is not intended to be seen as a final view, which will evolve through assessment within the UNC modification process. Some areas represent firmer positions, however all areas will be discussed and debated to establish a charging framework that is appropriate for GB. Accordingly, the modification will be updated periodically to reflect emerging thinking.

### 4 Code Specific Matters

#### Reference Documents

There are summary documents available on each of the topics (mentioned in the solution section of the modification proposal) which have been discussed at NTSCMF and sub-groups related to the gas charging review, which are available at: <http://www.gasgovernance.co.uk/ntscmf/subg1page> and <http://www.gasgovernance.co.uk/ntscmf/subg1model>.

Uniform Network Code (UNC) Section Y:

[http://www.gasgovernance.co.uk/sites/default/files/TPD%20Section%20Y%20-%20Charging%20Methodologies\\_29.pdf](http://www.gasgovernance.co.uk/sites/default/files/TPD%20Section%20Y%20-%20Charging%20Methodologies_29.pdf)

UNC European Interconnection Document (EID):

<http://www.gasgovernance.co.uk/EID>

EU Tariff Code:

<http://www.gasgovernance.co.uk/sites/default/files/EU%20Tariff%20Code%20-%20final%20clean.pdf>

Uniform Network Code (UNC) Section B:

[http://www.gasgovernance.co.uk/sites/default/files/TPD%20Section%20B%20-%20System%20Use%20&%20Capacity\\_55.pdf](http://www.gasgovernance.co.uk/sites/default/files/TPD%20Section%20B%20-%20System%20Use%20&%20Capacity_55.pdf)

NTS Transportation Statements:

<http://www.gasgovernance.co.uk/ntschargingstatements>

Customer and Stakeholder Objectives:

<http://www.gasgovernance.co.uk/sites/default/files/NTS%20Charging%20Review%20Objectives%2006Sep16%20v1.0.pdf>

Gas Transmission Charging Review (GTCR) and associated update letters:

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

## Knowledge/Skills

An understanding of the Section Y Part A within the UNC, NTS Transportation Statements, the EID within the UNC, Section B within the UNC, the EU Tariff code, GTCR documentation and the customer/stakeholder objectives developed within NTSCMF would be beneficial.

## 5 Solution

This modification proposal will seek to amend Section Y Part A (NTS Charging Methodologies) of the UNC, by changing the methodology for the calculation of gas transmission charges. Changes to Section B (System Use and Capacity) of the UNC may be required and this will be kept under review and the modification updated accordingly.

This modification has a broad scope and covers a number of potential combinations of how to define certain charges and how they could be calculated and applied.

As the application (e.g. Interconnection Point (IP) vs Non IP, or any discounts or exemptions) will be discussed through the further development and refinement of the solution and options in the development process, this modification states initially that there is one single approach for all charging arrangements for GB.

Where there is a definite decision on the solution proposed in this modification, this will be highlighted. Where there is a default position for further discussions to develop solutions with NTSCMF and sub-groups these will also be identified.

## Mapping of the TO revenue and SO revenue to Transmission Services revenue and Non-Transmission Services revenue

Within the collection of revenue there are some changes to the terminology used to assign the revenue. These changes are required by the EU Tariff Code. This does not affect the actual allowed revenue National Grid will be required to recover through the charges.

TO Revenue currently includes DN Pensions Deficit Charge and Meter Maintenance Charge but under the EU Tariff Code (Article 4) these do not fall into the specific criteria for Transmission Services. As the DN Pensions deficit charge and Meter Maintenance charge are targeted specific charges this modification is proposing that these will be collected as Non-Transmission Services charges, thereby contributing towards Non-Transmission Services Revenue. The methodologies to calculate these are not proposed to be reviewed at this stage. Whilst these could be considered as either Transmission Services or Non-Transmission Services, providing it is approved by the National Regulatory Authority (NRA), it is proposed this is a pragmatic way to charge for these items.

Within the SO suite of charges currently there is a St. Fergus Compression charge. The methodology used to calculate this is not proposed to be reviewed at this stage. Revenue from St. Fergus Compression, which will be a Non-Transmission Services charge, will therefore be removed from the Non-Transmission Services Revenue before the main Non-Transmission Services charges are calculated.

The amounts to be recovered through these charges do not amend the overall amounts that would be required to be recovered through the remaining charges although there will be some minor UNC amendments required to reflect their inclusion under Non-Transmission Services rather than Transmission Services.

## Transmission Service Charging – Capacity Charge Calculation

Capacity charging requires a RPM as the core part of the calculation for Capacity prices. This RPM is the framework to spread the costs / revenues (relevant to the methodology in place) to the Entry and Exit points and thereby on to network users.

The current methodology used to calculate the capacity prices, prior to any adjustments, is the LRMC methodology. Discussions around different RPM's have taken place in recent NTSCMF meetings in order to question whether the current LRMC methodology is the most appropriate for a NTS that is not growing. The LRMC model uses strong locational signals linked to continued investment, a principle which Network Users considered as being of limited use and not a significant factor in decision making due to the lack of expansion of the NTS.

A methodology for the calculation of the Transmission Services Charges would need to be appropriate to the way the NTS is used and expected to be used and marginal pricing is not considered the most appropriate currently nor looking into the near future. Based on a review (<http://www.gasgovernance.co.uk/ntscmf/subg1model>) of the sensitivity of the LRMC approach to changing certain inputs, the LRMC is more unpredictable, yielding more volatile results than other approaches, for example a CWD approach.

The industry working groups concluded that a methodology based on CWD would better suit the current and future expectations for the NTS and maximising its use (driven through market behaviour) rather than using a RPM built on the foundation of continued expansion.

Through this assessment of RPM's, the main alternative considered was the CWD model. By design this approach is generally more predictable, less volatile and more stable in nature and is more suited to a system that is about use and revenue recovery associated to use rather than linked to investment (marginal pricing).

This modification is proposing a CWD approach which will continue to provide some locational diversity in charges through the use of locational capacity and the average distances applied under the CWD approach.

One RPM will be used for the calculation of capacity prices for all points on the system and this approach is EU compliant. This modification is not proposing to have multiple RPMs within the GB Transportation charging framework.

As they are in the current regime, capacity reserve prices will be produced in p/kWh/d.

The CWD approach fundamentally requires three main inputs:

- A revenue value is required, which will be linked to the allowed revenues National Grid will be required to recover;
- A distance matrix for the average connecting distances on the NTS; and
- A capacity value for each Entry and Exit point that will be the Forecasted Contracted Capacity (FCC) (which is mentioned later in this section).

For information only: As defined in the EU Tariff Code the reference price means the price for a capacity product for firm capacity with a duration of one year, which is applicable at entry and exit points and which is used to set capacity-based transmission tariffs.

For information only: A CWD Model and User Guide have been produced which can be found at: <http://www.gasgovernance.co.uk/ntscmf>. A Postage Stamp model is also available to be able to do a comparison of the prices in each of these models (found at the same location).

## Adjustment methodology to charges (Transmission Services)

There are a number of adjustment methodologies that could be applied to the Transmission Services charges that, in combination would recover the Transmission Services Revenues. Transmission Services charging methodology adjustments may include and are not limited to RPM adjustments.

Adjustments or separate charges may serve to recover revenues where relevant or beneficial to do so, to encourage behaviours along with ensuring National Grid fulfils relevant NTS obligations.

Examples which will be discussed during this modification process and how they are applicable, are:

- RPM adjustment;
- Multipliers;
- Specific Capacity Discounts;
- Interruptible pricing;
- Seasonal Factors
- Other adjustments or charges

## Non-Transmission Services Charging

For some aspects of the Non-Transmission Services Charging there is no proposal to change the methodology of how certain charges will be calculated. The revenue from these will contribute towards Non-Transmission Services Revenue:

- DN Pensions Deficit Charge
- Meter Maintenance Charge
- St. Fergus Compression Charge

Before the Non-Transmission Services charges are calculated the total Non-Transmission Services revenue excluding the DN Pensions, Meter Maintenance and the St. Fergus revenue will be calculated. ,

Non-Transmission Services Revenue is to be recovered through a flow based charge as a flat unit price for all relevant or qualifying Entry and Exit Points, which may be for all flows on the NTS as all flows do use the NTS.

Therefore the denominator for the calculation of the Non-Transmission Services charges will be developed alongside this Modification proposal. Through the development of this modification proposal this will be discussed and debated as to whether this is appropriate and if other positions better meet the collected objectives the modification proposal will be refined and updated accordingly.

The main Non-Transmission Services charge will be produced in p/kWh, the same units as the current SO Commodity charge.

For information only: A Non-Transmission Services model has been produced which can be found at: <http://www.gasgovernance.co.uk/ntscmf>

## Revenue Reconciliation

A separate under or over revenue recovery (otherwise known as the “K” value) will be calculated for Transmission Services and Non-Transmission Services. This will be different to the TO and SO “K” values however the principle of reconciling Transmission Entry and Exit revenues separately will remain. It is necessary to include in this modification to ensure this is an approach populated in the UNC, to be approved by the NRA, that preserves the reconciliation between the two newly established terms (Transmission Services and Non-Transmission Services).

### **Transmission Services Revenue:**

It is proposed to maintain 50/50 split between Entry and Exit (for the purposes of allocating revenues to the charges to recover Transmission Services Entry and Exit Revenues). It is also proposed to maintain the reconciliation of Entry and Exit for Transmission Services, like the current approach for TO charges. This would continue to mean that Entry and Exit, under Transmission Services, when reconciled would not result in Entry impacting Exit or vice versa.

The applicable years Transmission Service Revenue will be split 50:50 between revenue to collect on Entry Capacity charges and revenue to collect on Exit Capacity charges. This value will then be added to any under/over recovery (K value) which was calculated in y-2 (two years ago) and split between Entry and Exit in the correct proportion, to make the applicable revenue which will be used in the CWD model to calculate the capacity charges.

### **Non-Transmission Services Revenue:**

The applicable years Non-Transmission Service Revenue is added to any total (Entry and Exit) under/over recovery (K value) which was calculated in y-2, to give the applicable revenue which will be used in the Non-Transmission Services model to calculate the Non-Transmission Services charges. One K value will be produced for Non-Transmission Services Revenue.

## Specific Capacity Discounts

This modification proposal is starting with a single GB approach. Contained within the EU Tariff Code there are requirements to apply discounts for storage capacity, where that discount must be at least 50%. This minimum discount is specific to storage in order to avoid double charging and in recognition of the general contribution to system flexibility and security of supply of such infrastructure.

The storage discount will be based on locations where the type of Entry point/Offtake is designated as a ‘Storage Site’ in the Gas Transporter Licence (the “Licence”), Table 4B and Table 8.



The EU Tariff Code (Article 9) also allows for discounts under certain conditions (e.g. Entry points from LNG facilities and at Entry Points from and Exit Points to infrastructure ending isolation) however does not mandate them. The level and application of discounts to all parties, and their impact on other NTS customers, will be discussed as part of this modification proposal.

For information only – The storage discount is applied to the capacity reference price which reduces the revenue that will be collected based on the expected capacity bookings which means there is an expected under-recovery of revenue. An action can be taken at this point to account for this expected shortfall, e.g. this could be via an adjustment to the revenue input to the chosen reference price model or a unit price adjustment applied either to the reference price or the reserve prices. Some of these options would still be subject to the storage discount and some would apply equally to all locations. This will be discussed as part of the Adjustment Methodologies to charges section of this modification proposal. This process would apply equally to other sites or types where discounts are applied.

For information only – A separate UNC modification will be raised for splitting relevant points on the NTS to identify different categories of capacity.

## Multipliers

Multipliers are applied after the Reference Prices have been calculated to produce the Capacity Reserve Price. Multipliers can be greater or less than 1 so they could increase or decrease the resulting reserve price relative to the reference price. Different multipliers can be applied to the different capacity products (i.e. Quarterly, Monthly, Daily) and could vary at different Entry or Exit points. They can also be applied to Entry and Exit differently.

Multipliers can be perceived in different ways by different users and can be used in a charging framework for a number of reasons (e.g. could be used as an incentive to book Long Term (LT) capacity could be used to aid revenue reconciliation, or could be a way of reflecting potential scarcity of capacity and the risk waiting until the day to book). A discussion needs to take place as to what is the purpose of multipliers and a framework developed consistent with this.

For information only: Multipliers are specified under the EU Tariff code (Article 13) for IP quarterly standard capacity products and for IP monthly standard capacity products are no less than 1 and no more than 1.5 and for IP daily standard capacity products and IP within-day standard capacity products are no less than 1 and no more than 3. For the IP daily standard capacity products and IP within-day standard capacity products the multipliers may be less than 1 but higher than 0 or higher than 3, where duly justified.

Multipliers for IPs need to be consulted on each year (Article 28 of the EU Tariff code), this modification proposes that the methodology for the calculation of the multipliers will be within UNC Section Y Part A but the actual values for the multipliers will be contained within a separate document.

Multipliers will be discussed and this modification proposal will be updated with the outcomes of the discussions.

## Interruptible

The pricing of Interruptible capacity will be reviewed within this modification proposal, but the principles and the application of Interruptible capacity will not be amended.

A single approach for GB is the starting proposal for this modification which as a consequence means that all points will be prices based on Article 16 of the EU Tariff Code, which states that for IPs there will be a probability of Interruption to calculate the Interruptible price.

The pricing of interruptible will be further developed as part of this Modification proposal.

## Forecasted Contracted Capacity (FCC)

A FCC value is a necessary and fundamental input into the Transmission Services capacity charges calculation. There needs to be a FCC for every Entry and Exit point. The term FCC comes from the EU Tariff Code however it is not a defined term under the EU Tariff Code and will require additional work to relate this to the most appropriate method for GB.

The values of the FCC are very influential on the resulting prices from the RPM and have the potential to drive the necessity or weight on other elements within the Transmission Services capacity charges calculation.

An appropriate methodology to determine FCC will be developed as part of this Modification proposal, there are a number of potential options to be discussed.

## Avoiding In-efficient bypass of the NTS

There is a benefit of having such a product for avoiding in-efficient bypass of the NTS, providing its objectives, calculation and application are relevant to the overall methodology. This product will be developed alongside all elements of the charging methodology under this modification.

## Seasonal Factors

Seasonal Factors are not proposed to be used in the CWD model.

Where seasonal factors are applied (linked to article 13 of EU Tariff Code) for IPs these will be subject to consultation each year (in accordance with article 28 of the EU Tariff Code).

## Existing Contracts

Existing contract provisions (Article 35 in EU Tariff Code) are applicable if the “contract or capacity booking concluded before the entry into force of the EU Tariff Code – 6 April 2017, such contracts or capacity bookings foresee no change in the levels of capacity and/or commodity based transmission tariffs except for indexation, if any”.

It does not apply to capacity at Exit points as charges change each October nor Entry and Exit commodity charges as they change at least twice a year in April and October.

As part of this modification it will be necessary to consider the charges or adjustments or alternative charging arrangements that it may be permissible to levy on Existing Contracts.

## Aspects of the GB Charging Regime where there are no proposals for change (for information only):

The following is a list of items for which changes are not being proposed at this time. Some of these may be discussed as part of the longer term charging reviews:

- Auction Structure – All timings for auctions will be as per now or as per CAM changes.
- Entry/Exit Split – Keep as 50:50 split.
- Gas Year/Formula Year – Formula Year is April to March and Gas Year is October to September, will keep these as currently are.
- DN Pensions Deficit Charge – No change to the calculation or the application of the charge.
- St.Fergus Compression Charge – No change to the calculation or the application of the charge.
- Categorisation of Entry and Exit Points – Maintain the link to the Licence for categorisation.

- Seasonal Factors – Not used in current methodology and propose not to introduce.
- Fixed Pricing – As per MOD 611 Amendments to the firm capacity payable price at IPs.
- Allowed Revenue – No change as per the Licence.
- Principles and application of Interruptible – As per MOD 500 EU Capacity Regulations - Capacity Allocation Mechanisms with Congestion Management Procedures.

## 6 Impacts & Other Considerations

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

N/A

### Consumer Impacts

Depending on the final proposal of the charging methodologies there will be impact on different consumer groups but the allowed revenue collected by National Grid NTS will not change. This section will be developed as this modification proposal develops.

### Cross Code Impacts

None

### EU Code Impacts

EU Tariff Code compliance is considered as part of this modification proposal.

### Central Systems Impacts

To be discussed during the development of this modification proposal.[ There are likely to be impacts on Gemini and invoicing systems.

## 7 Relevant Objectives

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;	None
aa) That, in so far as prices in respect of transportation arrangements are established by auction, either: <ul style="list-style-type: none"> <li>(i) no reserve price is applied, or</li> <li>(ii) that reserve price is set at a level -               <ul style="list-style-type: none"> <li>(I) best calculated to promote efficiency and avoid undue preference in the supply of transportation services; and</li> <li>(II) best calculated to promote competition between gas suppliers and between gas shippers;</li> </ul> </li> </ul>	None

b) That, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;	Positive
c) That, so far as is consistent with sub-paragraphs (a) and (b), compliance with the charging methodology facilitates effective competition between gas shippers and between gas suppliers; and	None
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.	Positive

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:

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

The update to the Transmission Services methodology proposal takes into account developments which have taken place in the transportation business, in particular that the network is no longer expanding.

- 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.

The EU Tariff Code compliance is taken into account in this modification proposal.

To the extent that TPD Section B is impacted, this will require a review of the standard Relevant Objectives in addition to the above.

## 8 Implementation

No implementation timescales proposed, these will be discussed within the workgroups.

This modification and the resulting methodology change will take effect for prices from October 2019, in order to achieve compliance with the EU Tariff Code.

## 9 Legal Text

### Text Commentary

To be provided later

### Text

To be provided later

## 10 Recommendations

### Proposer's Recommendation to Panel

Panel is asked to:

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