





UNC Modification		At what stage is this document in the process?
<h1>UNC 0XXX:</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 make changes to the Gas Transmission Charging regime in order to reflect the changing utilisation of the NTS and the need to better meet the relevant charging objectives.</p> <p>This modification proposal proposes a change to the underlying Reference Price methodology (RPM) used in the calculation of capacity charges plus a review of the remaining areas of the charging framework to recover National Grid NTS's allowed revenues. We are starting with a single GB approach for the all aspects of the methodology (including, where appropriate a relevant default position) recognising that this could change as the modification is developed. As a result this has resulted in adopting defaults for certain aspects that are in EU Tariff Code, given the need for EU compliance to be considered. Through the development of this modification proposal we will discuss and debate whether this is appropriate for GB and if they better meet the relevant objectives, and as a result of this debate we will refine and update the modification proposal accordingly.</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>	

**Guidance on the use of this Template:**

Please complete all sections unless specifically marked for the Code Administrator.

Green italic text is provided as guidance and should be removed before submission.

The Code Administrator is available to help and support the drafting of any modifications, including guidance on completion of this template and the wider modification process. Contact: [enquiries@gasgovernance.co.uk](mailto:enquiries@gasgovernance.co.uk) or 0121 288 2107.

## UNC 0xxx Modification

## 1 Summary

### What

The methodology which is currently in place for the calculation of Gas Transmission charges, and the methodology to recover Transmission Owner (TO) and System Operator (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 through charges has not changed substantially. During this time, patterns of use of the NTS have changed, and the charging framework no longer recovers revenue in the way that was intended when it was set up.

These changes will not impact the overall revenue to be recovered by National Grid Gas Transmission; however it will change the way those charges are divided across different industry parties and as such it is essential to understand the overall impact of these changes to those parties, and to the end consumer.

### Why

The driver is to develop a methodology which will be fit for purpose and reflective of the way the NTS is used and is expected to be used in the short and medium term. The framework should be a stepping stone for further developments.

There is an opportunity to review to address some of the customer and stakeholder issues such as volatility and predictability, to better fit the relevant objectives and to deliver an EU compliant methodology.

### How

This modification proposes a review of the Charging Methodology and the foundation is to propose changes that are in line with the relevant objectives, to better facilitate / reflect the way in which the NTS is used, to deliver change based on customer and stakeholder feedback, and to deliver an EU compliant methodology.

With these objectives in mind, given the range of potential combinations and approaches to the charging framework, the position for this modification proposal is broad reaching and comes from a point where we are considering improvements in all areas of Gas Transmission Charging. As such the scope of this review ranges from defining what the charges are there to recover, to the charging methodologies that permit the recovery of the allowed revenues from NTS network Users through the NTS charges.

This modification proposal as a package does not represent a final view, this will be developed through the UNC modification process. As we highlight some areas represent firmer positions, however all areas will be discussed and debated through the development of the modification, to establish a charging framework that is appropriate for GB and, throughout the development the modification will be updated accordingly.

## 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 connected with the transportation of gas conveyed via the National Transmission System (NTS), the operation of this pipeline system and the charges which are paid for the use of the NTS.

### Requested Next Steps

This modification should:

- be assessed by a Workgroup

as this will affect the payable price that shippers shall bear for capacity at Entry and Exit Points and so could benefit from industry discussion and scrutiny.

## 3 Why Change?

The methodology which is currently in place for the calculation of Gas Transmission charges, the methodology to recovery of TO and SO revenue through Entry and Exit charges been in place for 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 through charges has not changes substantially. What has been seen is a number of changes in the industry around way the system is used and therefore an impact on charging framework that has highlighted a number of areas that would benefit from a review. Behaviours, including increasing capacity bookings has changed and this in combination with the resulting impact on the charging framework no longer in keeping with the objectives of the charging methodology.

Over time it has been seen that there has been substantial volatility in capacity prices, an increased dependency on commodity charges plus the impact of discounts and alternative charging arrangements that, all combined in the resulting charging arrangements are not in keeping with the obligations of the charging methodology. This is an opportunity to review the charging framework and also deliver EU compliance.

## 4 Code Specific Matters

### Reference Documents

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>

## 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 and the EU Tariff code would be beneficial.

## 5 Solution

This modification proposal will amend Section Y Part A of the UNC, as this modification proposal is changing the methodology for the calculation of gas transmission charges. This may also amend Section B of the UNC and this will be kept under review.

This modification proposes reviewing the gas transmission charging framework, as such it is broad in its coverage.

In this modification proposal we are starting with a set of default positions, through the development of this modification proposal we will discuss and debate whether this is appropriate and if other positions that better meet the relevant objectives and we will refine and update the modification proposal accordingly.

For information only: There is summary documents available on each of the topics which have been discussed at National Transmission System Charging Methodology Forum (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>.

Under the current charging arrangements the Transmission Owner (TO) and System Operator (SO) revenues, calculated in accordance with National Grid's Licence are recovered through a range of charges. Under this modification, there may be some changes to the terminology used to assign the revenue between Transmission Services and Non Transmission Services Revenues and the charges used to collect them, but this does not affect the overall allowed revenue National Grid is required to recover.

## Transmission Service Charging – Capacity Charge Calculation

Capacity charging at its core requires a Reference Price Methodology (RPM) as 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.

A methodology for the calculation of the Transmission Services Charging would need to be appropriate to the way the NTS is used and expected to be used. Marginal pricing is not considered the most appropriate currently and looking into the future. We are proposing Capacity Weighted Distance approach which will continue to have a geographical element as it should in some way provide some signals to shippers, in this case it provides some signals about capacity and where and an appropriate revenue (thereby cost) distribution across the NTS user base.

The current methodology used to calculate the capacity prices, prior to any adjustments, is the Long Run Marginal Cost (LRMC) methodology, discussions around different RPM's, have taken place in recent National Transmission System Charging Methodology Forum (NTSCMF) meetings as to if the current LRMC methodology is the most appropriate for the charging framework given changes to the intended use of the NTS and market behaviours.

Through this assessment of RPM's, the main alternative concentrated on was the Capacity Weighted Distance (CWD) model, as more predictability, less volatile and more stable.

The LRMC model uses strong locational signals, a principle which Network Users considered as being of limited use and not a significant factor in decision making.

In line with the NTSCMF discussions and the work done in assessing the RPM's, this modification proposes to use a CWD based Model as the principle methodology for the calculation of the capacity reference prices as the Transmission Services Model and reserve prices. One RPM will be used for the calculation of capacity prices for all points on the system and it will be required to be EU compliant. Charges for capacity reserve prices will be produced in p/kWh/d.

The CWD approach fundamentally required three main inputs:

- A revenue value is required for the charges to recover, 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 (which is mentioned later in this section).

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 or where relevant or beneficial to do so, to encourage or incentivise 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;
- Discounts;
- Interruptible pricing;
- Other adjustments

## Non Transmission Services Charging

Non-Transmission Services Revenue is recovered through a flow based charge as a flat unit price for all Entry and Exit Points. All flows on the system will pay this charge as they are using the system. Charges will be produced in p/kWh/d.

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

## Revenue Reconciliation

### **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 Transmission Owner 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 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.

## 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 of the terminology used to assign the revenue, but this does not affect the actual allowed revenue National Grid will be required to recover through the charges.

TO Revenue currently includes DN Pensions and Meter Maintenance but under the EU Tariff Code these can't be collected by Transmission Services Revenue so these will be collected by Non-Transmission Services Revenue. The methodologies to calculate these are not proposed to be reviewed at this stage.

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.

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 charge, will therefore be removed before Non-Transmission Services charges are calculated.

## Specific Capacity Discounts

In this modification proposal we are starting with a single GB approach and therefore adopting defaults for certain aspects that are in the EU Tariff Code. This is to apply a 50% discount for storage capacity.

In order to avoid double charging for transmission to and from storage facilities, the EU Tariff code sets out a minimum discount acknowledging the general contribution to system flexibility and security of supply of such infrastructure.

For Article 9 within the EU Tariff code there is a mandated minimum proposal set out which is that a specified storage site will get a 50% on the capacity prices, 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. (For information – a separate UNC modification will be raised for splitting combined ASEPs)

The storage discount is applied to the capacity reference price which reduces the quantity of 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.

## Multipliers

Multipliers are applied to the CWD model 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.

Multipliers can be perceived in different ways by different users and in what it means for them 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 which could facilitate better planning/forecasting, 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).

There needs to be an agreement on a structure that works for all parties in the industry; Multipliers set at a high level may force the purchase of long term capacity, even though there may be limited intention of using it every day.

Depending on behavioural responsiveness to price changes, multipliers (which can be greater than or less than 1) may have an impact on planning and forecasting.

For information: Multipliers are specified under the EU Tariff code for Interconnection Points (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 (Article 13 of the EU Tariff code).



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.

Within this modification proposal is that the same methodology for the calculation multipliers which is used at all points, the default position for multipliers within the CWD is that all multipliers are set to 1, there is no discount applied to any of the capacity charges. The starting point is that there is a single methodology for the multipliers at all points.

## Interruptible

The pricing of Interruptible will be reviewed within this modification proposal, but the principles and the application of Interruptible 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 states that for Interconnection Points there will be a probability of Interruption to calculate the Interruptible price.

## Forecasted Contracted Capacity

A Forecasted Contracted Capacity (FCC) is a necessary and fundamental input into the Transmission Services capacity charges calculation. There needs to be a forecasted contracted capacity for every Entry and Exit point. The term Forecasted Contracted Capacity 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 method and values of the FCC are very influential on the resulting prices from the RPM 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 and have been discussed at NTSCMF and sub-groups, information on the discussion can be found here:

<http://www.gasgovernance.co.uk/sites/default/files/Forecasting%20Contracted%20Capacity%20v0%2050.pdf>

## 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.

## Existing Contracts

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

Under article 35, some protection is afforded to that which qualifies as an existing contract.

Existing contracts only applies to the capacity booked at Entry points. The existing contracts are applicable for any Entry capacity which was allocated before 6 April 2017 (entry into force date for the EU Tariff Code).

It does not apply at Exit points capacity charges as they change each October or 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 may be permissible to levy on Existing Contracts.

### **What not proposing to change (for now) (for information only):**

The following is a list of items which we are not proposing to change 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 Interconnection Points.
- 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 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.

## 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.

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.

## 8 Implementation

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

This modification and the resulting methodology change will take effect for prices from October 2019.

## 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:

Refer this proposal to a Workgroup for assessment.