





UNC Modification		At what stage is this document in the process?
<h1>UNC 0636?:</h1> <h2>Updating the parameters for the NTS Optional Commodity Charge =</h2> <h3><u>Introducing the NTS Optional Capacity Charge</u></h3>		<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid green; background-color: #2e8b57; color: white; padding: 2px; display: flex; align-items: center; justify-content: center;">01 Modification</div> <div style="border: 1px solid blue; background-color: #e6f2ff; padding: 2px; display: flex; align-items: center; justify-content: center;">02 Workgroup Report</div> <div style="border: 1px solid purple; background-color: #f0e6ff; padding: 2px; display: flex; align-items: center; justify-content: center;">03 Draft Modification Report</div> <div style="border: 1px solid orange; background-color: #fff9e6; padding: 2px; display: flex; align-items: center; justify-content: center;">04 Final Modification Report</div> </div>
<p><b>Purpose of Modification:</b></p> <p><u>To replace NTS Optional Commodity Charges with NTS Optional Capacity Charges that will provide an enduring solution at all system entry and exit points, being mindful of changes ensuing from the European Tariff Network Code.</u></p>		
	<p>The Proposer recommends that this modification should be:</p> <ul style="list-style-type: none"> <li>considered a material change and not subject to self-governance</li> <li>assessed by a Workgroup</li> </ul> <p>This modification will be presented by the Proposer to the Panel on <u>15 March 2018</u>. The Panel will consider the Proposer's recommendation and determine the appropriate route.</p>	
	<p>High Impact:</p> <p><u>The proposal, if implemented, will result in a major change to the way in which optional transportation tariffs are derived and applied.</u></p>	
	<p>Medium Impact:</p>	
	<p>Low Impact:</p>	

**Deleted:** To update the parameters used in the derivation of the Optional Commodity Charge tariff in order to reduce the current level of effective cross subsidy by gas customers who cannot avail of the Optional Commodity Charge.

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**Deleted:** Users opting for the Optional Commodity Charge could expect an increase in the tariff. Note that it is expected that the tariff would still be available as an option to avoid inefficient bypass of the NTS. ¶ The Standard Commodity tariff would be consequentially reduced.

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Timetable		 telephone 07979 564929	Deleted: 11
The Proposer recommends the following timetable:		Transporter: National Grid NTS	Deleted: 06 November 2017
Initial consideration by Workgroup	TBC	Systems Provider: Xoserve	Deleted: 18 January
Workgroup Report presented to Panel	September, 2018	 commercial.enquiries@xoserve.com	Deleted: 19 January
Draft Modification Report issued for consultation	September, 2018	Other:	Deleted: 08 February
Consultation Close-out for representations	October, 2018	▼	Deleted: 12 February
Final Modification Report available for Panel	October, 2018	 debra@tpasolutions.co.uk	Deleted: 15 February
Modification Panel decision	October, 2018		Deleted: Debra Hawkin
			Deleted: debra@tpasolutions.co.uk
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## 1 Summary

### What

The objective of the proposal is to replace NTS Optional Commodity Charges with Optional Capacity Charges and for this to take effect on 1 October 2019.

Deleted: The NTS Optional Commodity Charge (OCC) was introduced in 1998 and the tariff has not been updated for nearly 20 years. Therefore, it is proposed that the parameters within the NTS OCC formula need to be updated to be more reflective of the current costs and pipeline utilisation.

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## Why

The NTS Optional Commodity Charge formula was introduced in 1998 and has not been changed since that time. If a shipper elects to pay the Optional Commodity Charge for a deemed straight-line transportation route between a qualifying chosen system entry point (ASEP) and qualifying NTS exit point it will not be required to pay either the standard NTS entry or NTS exit commodity charges for the quantity of gas to which the optional charge applies. The original rationale was that the availability of the Optional Commodity Charge would encourage shippers to use the NTS in preference to building and using independent pipelines and that this would lead to a better economic outcome, avoiding inefficient bypass of the NTS. Since then shipper use of the Optional Commodity Charge has grown, partially driven by the rapid rise in TO commodity charge levels in recent years and some UNC parties have expressed some concern as to whether the level of uptake is now appropriate, i.e. that it results in an unfair redistribution of transportation costs. On the other hand, other UNC parties are of the view that the inefficient bypass argument is still valid and that shippers as a whole benefit from lower charges due to gas throughput that otherwise would not contribute to National Grid's revenue recovery. Additionally, it has been argued that in addition to avoiding inefficient bypass, the Optional Commodity Charge actually attracts gas to the NTS, e.g. gas that might be delivered directly to the European continent instead of the NTS.

The NTS Optional Commodity Charge therefore remains a useful instrument for attracting gas to the GB market, for encouraging greater use of the NTS and therefore ultimately benefitting consumers. However, given the differing views of industry parties on the subject it should be reviewed and it is timely to do so because of changes to gas transmission charges that will result from the full implementation of the EU Tariff network code by 31 May 2019, with new charging arrangements taking effect from 1 October 2019.

Although the exact form of the new charging arrangements from October 2019 have yet to be determined, there are some changes that will have a direct impact on the applicability of the Optional Commodity Charge: the EU tariff network code will not permit TO commodity-type charges to be levied at Interconnection Points and the code also places emphasis on transportation charges generally as being largely capacity-based.

If the current Optional Commodity Charge were to remain in place, therefore, then it is highly likely that it will result in different economic treatments at Interconnection Points than at non-Interconnection Points. This would be discriminatory. Given this background, it is the Proposer's view that the current approach to providing optional transportation charges will be unworkable from 1 October 2019 and that a new approach is required.

## How

Optional Commodity Charges will be replaced by Optional Capacity Charges. Underpinning the derivation of the charges will be a Capacity Weighted Distance approach to establishing capacity reserve prices at all system entry and exit points. The "short-haul" or optional transportation distance, divided by a relevant entry or exit point's Capacity Weighted Distance and multiplied by the system point's reserve price will determine the Optional Capacity Charge payable. In the event that a Capacity Weighted Distance methodology is implemented in 2019 then the resultant Optional Capacity Charges will apply. If a different charging approach is implemented in 2019 then the method will be used to determine the level of discount to be applied to the reserve prices from that different methodology.

**Deleted:** The OCC was introduced in 1998 with the express intention of providing a mitigating option for shippers seeking short distance transportation, and was justified on the basis of avoiding inefficient bypass of the NTS. Given that the tariff has not been updated in nearly 20 years whilst standard commodity charges have risen significantly over the same period, the OCC has become a very attractive option even for exit points that are increasingly distant from an associated entry point.

National Grid NTS have advised the NTSCMF1 that Users opting to avail of the OCC during the current Gas Year (17/18) will pay an estimated £48.5 million in optional commodity charges but, in doing so, will avoid paying nearly £195 million in standard commodity charges. This represents a potential cross-subsidy to those OCC Users of about £146 million per annum at the expense of those sites which are unable to benefit from the option of the OCC.

**Deleted:** It is therefore proposed to give effect to this modification by way of two changes to the UNC TPD, Section Y paragraph 3.5 "NTS Optional Commodity Rate".

1. Replace the current formula with that proposed in 2015 as Option 2 by National Grid in its discussion document NTS GCD11<sup>2</sup>.
2. Adjust the assumed capacity of the alternative by-pass pipeline against which the OCC charges are calculated. Specifically replace the MNEPOR in the current formula with the average daily flow at the exit point from the previous Gas Year divided by 75%.

It is proposed that the changes arising from this code modification be implemented by 01 April 2018 thereby saving up to £220<sup>3</sup> million in cross subsidies relative to the base case of waiting until October 2019<sup>4</sup>.

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In addition to the Optional Capacity Charges replacing relevant system reserve charges, non-transmission services (SO) commodity charges will not apply to relevant gas flows nor will transmission services (TO) revenue recovery (or top-up) charges be applied.

## 2 Governance

### Justification for Authority Direction

The proposal is for a major restructuring of optional transportation charging that is expected to result in a significant redistribution of transportation costs among system users.

This Modification should be considered likely to have a material on competition in, or commercial activities related to, the shipping, transportation or supply of gas. It therefore should be sent to the Authority for decision.

### Requested Next Steps

This modification should:

- be considered a material change and not subject to self-governance; and
- be assessed by a Workgroup.

## 3 Why Change?

The following are the main reasons for change:

- The EU Tariff network code will inevitably result in different transmission charging arrangements from 1 October 2019 and it is therefore timely to consider whether the current approach to providing optional transportation charges is sustainable;
- It is anticipated that the current Optional Commodity Charge will provide discriminatory economic outcomes to the disadvantage of Interconnection Points due to some explicit charging restrictions imposed by the EU Tariff network code, i.e. that transmission revenue (TO) recovery commodity charges cannot be applied at Interconnection Points;
- The rationale for, and benefits of, providing optional transportation charges should be reviewed to provide confidence that they will result in outcomes that are beneficial to competition in gas shipping and supply, provides a net benefit to consumers and, in a broader context, is conducive to facilitating security of gas supply, NBP market liquidity and effective competition with neighbouring European gas markets; and
- There needs to be greater transparency and governance for how optional transmission charges are derived and applied. Currently, the UNC does not set out a methodology for how the Optional Commodity Charge formula has been derived.

**Deleted:** National Grid NTS have advised the NTSCMF<sup>5</sup> that Users opting to avail of the OCC during the current Gas Year (17/18) will pay an estimated £48.5 million in optional commodity charges but, in doing so, will avoid paying nearly £195 million in standard commodity charges. This represents a potential cross-subsidy to those OCC Users of about £146 million per annum at the expense of those sites which are unable to benefit from the option of the OCC. It is proposed that the changes arising from this code modification be implemented by 1 April 2018 thereby saving up to £220<sup>6</sup> million in cross subsidies relative to the base case of waiting until October 2019<sup>7</sup>.<sup>†</sup>

**Deleted:** The parameters within the NTS Optional Commodity Charge (OCC) formula need to be updated to be more reflective of the current costs and pipeline utilisation.<sup>†</sup> The OCC is available as an alternative (instead of the Standard Commodity Charges) to Users nominating a "point to point" path for transportation from an NTS entry point to an NTS offtake point. If a User elects for the OCC, all NTS Entry and Exit (SO & TO) Commodity Charges are avoided. The NTS OCC is derived from the estimated cost of laying and operating a dedicated pipeline of NTS specification. This is defined in UNC TPD Section Y. The OCC was introduced in 1998 with the express intention of providing a mitigating option for shippers seeking short distance transportation, and was justified on the basis of avoiding inefficient bypass of the NTS. Given that the tariff has not been updated in nearly 20 years whilst standard commodity charges have risen significantly over the same period, the OCC has become a very attractive option even for exit points that are increasingly distant from an associated entry point. The parameters on which the OCC tariff is predicated are no longer considered to be appropriate as <sup>†</sup> The formula used to calculate the current Optional Commodity rates uses the costs of building and operating a dedicated pipeline at the time of introduction in 1998<sup>8</sup> and has not been amended since. The Transco Consultation Report on PC9A (December 1997) provided the opportunity to update the costs although this has, so far, not been effected.<sup>9</sup> National Grid sought to update the cost inputs in 2015. While Code Modification 0563S facilitated the inclusion of the formula into the UNC TPD, Section Y from the NTS Transportation Statement, the update to the original OCC formula is still outstanding as National Grid decided to wait until there was more clarity on the EU Tariff Code rather than any suggestion that it was inappropriate to update the charging formula.<sup>†</sup> Load factors at exit points are very low in relation to the design capacity assumption embedded within the OCC charge – nowhere near the 75% assumption, meaning that the OCC is too low. National Grid NTS advised at a recent NTSCMF (17 July) that the average load factor of short-hauled gas has declined to about 20% during the 16/17 Gas Year. <sup>†</sup> National Grid NTS have advised the NTSCMF<sup>10</sup> that Users opting to avail of the OCC during the current Gas Year (17/18) will pay an estimated £48.5 million in optional commodity charges but, in doing so, will avoid paying nearly £195 million in standard commodity charges. This represents a potential cross-subsidy to those OCC Users of about £146 million per annum at the expense of those sites which are unable to benefit from the option of the OCC. <sup>†</sup> ... [1]

**Deleted:** subsidisation in the interim. The proposer doesn't wish to burden National Grid unduly in the administration of an amended OCC and also appreciates the need to develop a fairly simple solution that can be implemented relatively quickly and which will materially address the cross-subsidisation in the period to October 2019.<sup>†</sup>

Use of "Option 2" as proposed by National Grid in its discussion document NTS GCD11<sup>11</sup>.<sup>†</sup> This Modification is seeking to use pipes that are more reflective of those that may be built as alternatives to the NTS<sup>†</sup>

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## 4 Code Specific Matters

### Reference Documents

#### Knowledge/Skills

Understanding of the NTS charging methodology in respect of the Optional Commodity Charge and knowledge of the requirements of the EU Tariff network code.

Deleted: The Statement of Gas Transmission Transportation Charges  
<https://www.gasgovernance.co.uk/sites/default/files/ggf/book/2017-09/Transportation%20statement%20October%202017%20.pdf>

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## 5 Solution

The new method will provide for reduced entry and exit capacity reserve charges at applicable entry and exit system points, replacing the need to derive an Optional Commodity Charge. Consistent with the current code rules, Non-Transmission Services (SO) commodity charges will not be payable on qualifying gas entry or exit flows. In addition, and consistent with the current code rules, Transmission Services Revenue Recovery (TO) charges will not apply to qualifying entry or exit gas flows (where such a charge is commodity-based) or to qualifying entry or exit capacity quantities (where such a charge is capacity-based).

The NTS Optional Capacity Reserve Charges will apply to an Applicable Quantity (Q) calculated on each gas day:

$Q = \text{MIN} \{ \text{CAPen}, \text{CAPex}, \text{FLOWen}, \text{FLOWex} \}$  where

CAPen = User's entry capacity entitlement on the day at the applicable ASEP,

CAPex = User's exit capacity entitlement on the day at the applicable exit point,

FLOWen = User's gas flow entry allocation on the day at the applicable ASEP, and

FLOWex = User's gas flow exit allocation on the day at the applicable exit point.

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For an applicable entry and exit point combination, the NTS Optional Capacity Reserve Charges to be levied on the Applicable Quantity are calculated as follows:

NTS Optional Entry Capacity Charge =  $D / \text{CWDen} \times \text{RPen}$  and

NTS Optional Exit Capacity Charge =  $D / \text{CWDex} \times \text{RPeX}$  where

D is the straight-line distance between the entry and exit point,

CWDen is the capacity weighted distance for the entry point,

CWDex is the capacity weighted distance for the exit point,

RPen is the capacity reserve price for the entry point and

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RPex is the capacity reserve price for the exit point.

The capacity weighted distances will be derived with reference to the approach set out in the EU Tariff network code.

The Optional capacity charges therefore reflect that proportion of the costs, allocated by the capacity weighted distances at the relevant entry and exit points under a Capacity Weighted Distance charging methodology, that would be attributed to a dedicated pipeline bypassing the NTS.

Non-Transmission Services charges and Transmission Services Revenue Recovery charges will not be levied on the Applicable Quantity (Q).

Normal Transmission Services charges or Non-Transmission Services charges will apply, as appropriate, to those capacities or gas flows not covered by the Applicable Quantity (Q):

Where CAPen > Q, normal entry capacity charges will apply to (CAPen – Q) units of the User's entry capacity entitlement.

Where CAPex > Q, normal exit capacity charges will apply to (CAPex – Q) units of the User's exit capacity entitlement.

Where FLOWen > Q, the normal entry commodity charges will apply to (FLOWen – Q) units of the User's entry allocation.

Where FLOWex > Q, the normal exit commodity charges will apply to (FLOWex – Q) units of the User's exit allocation.

NTS Optional Charges will not apply where either the entry or exit point is a gas storage facility. Also, an exit point can be associated with only one entry point/ASEP for the purpose of attracting NTS Optional Charges.

It is appropriate that all gas using the NTS attracts a charge for doing so. It is therefore reasonable to apply a minimum distance limitation such that D is no less than 0.1km to ensure that the NTS Optional capacity charges are positive numbers.

National Grid NTS will notify relevant shipper Users of the applicable NTS Optional capacity charges, and the date from which they are to apply, as they would for the normal set of transportation charges.

**Deleted:** The proposal requires a change to the charging methodology contained within Section Y (3.5 NTS Optional Commodity Rate) and Section B3.12.10(b) of the UNC. ¶  
The parameters of the NTS Optional Commodity charge formula are derived from flow rates, pipeline distances and underlying costs. The current formula is as follows: ¶  
 $p/kWh = 1203 \times M^{-0.834} \times D + 363 \times M^{-0.654}$  ¶  
Where: ¶

D is the direct distance of the site or non-National Grid NTS Pipeline to the elected Entry Terminal ¶  
M is the Maximum NTS Exit Point Offtake Rate (MNEPOR) at the site, converted into kWh/day ¶  
^ means 'to the power of..' ¶

¶ The proposed formula is as follows: ¶  
 $p/kWh = 1247 \times M^{-0.78} \times D + 1422 \times M^{-0.708}$  ¶  
Where: ¶

D is the direct distance of the site or non-National Grid NTS Pipeline to the elected Entry Terminal ¶  
M is the aggregate of the allocated daily energy in kWh/day at the exit point from the previous Gas Year divided by the number of days in the previous Gas Year and further divided by 75% except: ¶

<#>where the site is new and hence there is no flow history, retain the existing formula for M of 24 times the Maximum NTS Exit Point Offtake Rate ¶  
<#>for an NTS Exit Point in respect of a pipeline interconnector having no physical exit capability, M is the aggregate of the allocated daily energy in kWh/day from the previous Gas Year divided by the number of days in the Gas Year and further divided by 75% to the NTS at the System Entry Point associated with such Connected Delivery Facility. ¶  
^ means 'to the power of..' ¶

**Deleted:** The update to the parameters would be effective for all sites availing of the OCC from the time of implementation of the Mod and no further updates are envisaged prior to October 2019. ¶

Thereafter, an annual process would update M each April commencing April 2019 for effect from the following October in the event that this Mod is not superseded by code changes necessary for EU TAR compliance. ¶

For the avoidance of doubt: ¶  
<#> At the time of calculation of the charge rates (which will be subject to the 2 months' notice of charges), the average aggregate allocated daily energy will take the latest gas year for which data is available – For example implementation anytime between 1 April and 1 October 18 will use data from the Gas Year October 16 to September 17. ¶

<#> $M = (\sum E) / N \times 100 / 75$  where E is the allocated daily energy for each day of the relevant Gas Year at the exit point and N is the number of days in the relevant Gas Year ¶  
<#>The 75% divisor converts an annual daily load to a notional peak day load which determines an appropriate pipe building cost estimate which is then used to derive the unit rate. The value of 75% is consistent with the assumption embedded in the current OCC formula. ¶

<#>A new site ceases to be new if at the annual update it has at least a full Gas Year's allocation history (even though some allocations could be zero) ¶

<#>M for a seasonal site will have its value calculated in the same way as a non-seasonal site and zero allocation values will be included in the calculation of  $\sum E$ . ¶

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## 6 Impacts & Other Considerations

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

There is no impact on an SCR. There is no impact on the current charging review that is due for implementation in 2019 for compliance with the EU Tariff Code.

#### Consumer Impacts

If implemented, the modification will result in a sustainable and transparent optional charging methodology that will have considered a range of factors likely to impact on consumers, including efficient utilisation of the NTS, competition in gas shipping and supply, security of supply and the effectiveness of the wholesale gas market.

**Deleted:** reduce an effective current cross-subsidy within the current charging methodology.

#### Cross Code Impacts

There is no impact expected.

#### EU Code Impacts

The proposal will result in a non-discriminatory and enduring outcome that takes into consideration the requirements of the EU tariff network code.

**Deleted:** None – this change is for the interim period until the charging review is implemented in 2019 for compliance with the EU Tariff Network Code. The proposer anticipates that the wider charging review will include a more comprehensive update of the OCC.<sup>1</sup>

#### Central Systems Impacts

Changes to systems will be assessed as part of the Modification development.

## 7 Relevant Objectives

Impact of the modification on the Relevant Objectives:

Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	None
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	None
c) Efficient discharge of the licensee's obligations.	None
d) Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or	<u>Positive</u>

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

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Particular attention to the requirements of the EU Tariff network code will ensure that an enduring solution is provided, one that does not unduly discriminate against Interconnection Points.

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Deleted: Adjustments to the OCC rate will reduce the Standard Commodity rates (all other things being equal) and thereby reduce cross subsidies and improve its cost reflectivity – relevant objective (a).<sup>¶</sup>  
An OCC rate that better reflects the underlying costs of appropriately sized alternative by-pass pipelines will better facilitate effective competition between shippers and suppliers – relevant objective (c) and specifically, help reduce transportation costs to domestic gas customers.<sup>¶</sup>  
Increasing take-up of the OCC over longer distances has led to a need to review the parameters within the OCC rate calculation – relevant objective (b).<sup>¶</sup>

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## 8 Implementation

An implementation date of 1 October 2019 is proposed. This is the date from which charges under a new transmission charging methodology, driven by EU Tariff network code requirements, will take effect.

The solution requires that National Grid provide relevant users with notices of newly derived Optional Capacity Charges on the same basis that other transportation charges are notified. The expectation is that indicative notices will be provided with a lead time of at least 150 days, with final notices provided at least 2 months before the charges are to be applied.

## 9 Legal Text

### Text Commentary

None

## 10 Recommendations

### Proposer's Recommendation to Panel

Panel is asked to:

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

**Deleted:** ~~<#>The usual date for charging changes is October or April in any year (but changes can be implemented at other dates subject to Ofgem approval). Ideally the proposer would like to implement the modification proposal as soon as possible.~~  
~~<#>If decision to implement is received after 31 July 2018, implementation 2 calendar months following the decision to implement~~

**Deleted:** Should the proposal proceed, National Grid will be asked to give (on a "reasonable endeavours" basis) 150 days' indicative notice that the OCC rate may change at exit points availing of the OCC and if possible an indicative rate. Similarly, National Grid will be asked to give 2 months' notice of the actual charges should the Modification be approved.

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Uniform Network Code – Transportation Principal Document Section B

3.12.10 For the purposes of paragraphs 3.12.9 to 3.12.14 (inclusive), the capacity of the Specified Exit Point shall be the Supply Point Capacity, provided:

<#>in the case of an LDZ Supply Point the capacity shall be determined in accordance with Section G5.4.1, except for a LDZ Shared Supply Point in which case the capacity shall be determined in accordance with Section G1.7.17;

<#>for an LDZ CSEP the capacity shall be determined in accordance with paragraph 4.5.2;

<#>in the case of an NTS Exit Point the capacity shall be equal to ~~24 times the Maximum NTS Exit Point Offtake Rate~~ the aggregate of the allocated daily energy (where this value is positive) in kWh/day at the exit point from the previous Gas Year divided by the number of days in the previous Gas Year and further divided by 75%, except:

~~<#>where an NTS Exit Point has no flow history then equal to 24 times the Maximum NTS Exit Point Offtake Rate~~

<#>for an NTS Exit Point in respect of a pipeline interconnector having no physical exit capability which is both a Connected Offtake System and a Connected Delivery Facility, the capacity shall be equal to ~~24 times the amount (where positive) determined as the instantaneous rate (in kWh/Hour) which the Transporter determines to be the maximum instantaneous rate at which it is feasible to deliver gas-~~ the aggregate of the allocated daily energy in kWh/day from the previous Gas Year divided by the number of days in the previous Gas Year and further divided by 75% to the NTS at the System Entry Point associated with such Connected Delivery Facility.

Uniform Network Code – Transportation Principal Document Section Y (3.5 NTS Optional Commodity Rate)

The NTS Optional Commodity Rate (in pence per kWh) is site specific and is calculated by the

following equation:  
$$1203 - 1247 \times [(M)^{-0.834 - 0.78}] \times D + 363 \frac{1422(M)^{-0.654 - 0.708}}{D}$$

Where:

D = the direct distance from the site or non-National Grid NTS pipeline to the Specified Entry Point in km;

M = ~~Maximum NTS Exit Point Offtake Rate (MNEPOR) converted into kWh/day at the site~~ the aggregate of the allocated daily energy in kWh/day at the NTS Exit Point from the previous Gas Year divided by the number of days in the previous Gas Year and further divided by 75% except:

<#>where the NTS Exit Point has no flow history, M = 24 times the Maximum NTS Exit Point Offtake Rate

<#>for an NTS Exit Point in respect of a pipeline interconnector having no physical exit capability which is both a Connected Offtake System and a Connected Delivery Facility, then M shall be equal to the aggregate of the allocated daily energy in kWh/day from the previous Gas Year divided by the number of days in the previous Gas Year and further divided by 75% to the NTS at the System Entry Point associated with such Connected Delivery Facility; and

^ . = to the power of

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The parameters within the NTS Optional Commodity Charge (OCC) formula need to be updated to be more reflective of the current costs and pipeline utilisation.

The OCC is available as an alternative (instead of the Standard Commodity Charges) to Users nominating a “point to point” path for transportation from an NTS entry point to an NTS offtake point. If a User elects for the OCC, all NTS Entry and Exit (SO & TO) Commodity Charges are avoided. The NTS OCC is derived from the estimated cost of laying and operating a dedicated pipeline of NTS specification. This is defined in UNC TPD Section Y. The OCC was introduced in 1998 with the express intention of providing a mitigating option for shippers seeking short distance transportation, and was justified on the basis of avoiding inefficient bypass of the NTS. Given that the tariff has not been updated in nearly 20 years whilst standard commodity charges have risen significantly over the same period, the OCC has become a very attractive option even for exit points that are increasingly distant from an associated entry point. The parameters on which the OCC tariff is predicated are no longer considered to be appropriate as

The formula used to calculate the current Optional Commodity rates uses the costs of building and operating a dedicated pipeline at the time of introduction in 1998<sup>1</sup> and has not been amended since. The Transco Consultation Report on PC9A (December 1997) provided the opportunity to update the costs although this has, so far, not been effected.<sup>2</sup> National Grid sought to update the cost inputs in 2015. While Code Modification 0563S facilitated the inclusion of the formula into the UNC TPD, Section Y from the NTS Transportation Statement, the update to the original OCC formula is still outstanding as National Grid decided to wait until there was more clarity on the EU Tariff Code rather than any suggestion that it was inappropriate to update the charging formula.

Load factors at exit points are very low in relation to the design capacity assumption embedded within the OCC charge – nowhere near the 75% assumption, meaning that the OCC is too low. National Grid NTS advised at a recent NTSCMF (17 July) that the average load factor of short-hauled gas has declined to about 20% during the 16/17 Gas Year.

National Grid NTS have advised the NTSCMF<sup>3</sup> that Users opting to avail of the OCC during the current Gas Year (17/18) will pay an estimated £48.5 million in optional commodity charges but, in doing so, will avoid paying nearly £195 million in standard commodity charges. This represents a potential cross-subsidy to those OCC Users of about £146 million per annum at the expense of those sites which are unable to benefit from the option of the OCC.

1. Users opting for the OCC during the current Gas Year will pay an estimated £48.5 million in

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<sup>1</sup> Using 1997 construction and operational costs, annuitized over a ten year project life using a 10% project discount rate.

<sup>2</sup>

**Secondly, in the interests of keeping the level of the tariff in line with current pipeline costs, we propose that the function should be reviewed at the same time as the annual review of general transportation charges, and updated in line with a suitable escalator.**

<sup>3</sup> NTSCMF 26 September 2017

optional commodity charges but, in doing so, will avoid paying nearly £195 million in standard commodity charges. This represents a potential cross-subsidy to those OCC Users of about £146 million per annum at the expense of those sites unable to benefit from the option of the OCC.

2. The proposal requires a change to the charging methodology contained within Section Y of the UNC and Section B3.12.10 (b).

3. If the change is not made there will be up to £220 million in cross subsidies by Users unable to benefit from the OCC (largely within the Distribution Networks) in the interim period between April 2018 and October 2019 before Modification 0621 could be expected to address the issue.

The proposer is aware that National Grid is planning to address this cross-subsidisation from October 2019 as part of Modification 0621 but is concerned that this will not address the on-going cross-

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subsidisation in the interim. The proposer doesn't wish to burden National Grid unduly in the administration of an amended OCC and also appreciates the need to develop a fairly simple solution that can be implemented relatively quickly and which will materially address the cross-subsidisation in the period to October 2019.

Use of "Option 2" as proposed by National Grid in its discussion document NTS GCD11<sup>4</sup>.

This Modification is seeking to use pipes that are more reflective of those that may be built as alternatives to the NTS and to use more up-to-date costs that would be more cost reflective.

This proposal proposes the use of Option 2 as detailed by National Grid in 2015 in its discussion document NTS GCD11. In summary, this option retains the underlying assumptions of the current OCC charge and maintains the same structure in the formula. The update inflates the current portfolio of unit costs using publicly available indices and also adds in those larger pipe sizes for which National Grid received target efficient unit costs. The application of a combination of steel and RPI indices are applied so as to result in a consistent set of cost data. The topic was discussed during NTSCMF meetings leading up to the GCD11 paper and has been further discussed as part of the wider charging review in 2017. Alternative cost data for pipe building has been requested as part of both these processes. The response has been limited potentially because of commercial confidentiality. The data underlying Option 2 therefore represents a pragmatic estimate to facilitate the calculation of an OCC rate that could be applied across all distances and load sizes.

The following is an extract from NTS GCD11 listing the steps NG used in the derivation of the original "short-haul" tariff and their review as detailed in NTS GCD11.

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<sup>4</sup> <http://www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Charging-methodology/Gas-Charging-Discussion-papers/>

The NTS Optional Commodity charge function was produced using the following steps:

- a) Uses a pipeline portfolio that, through using flow rates and distances, allocates a specific pipe size from the portfolio to a certain distance and flow rate combination;
- b) Produce a cost for each distance/flow rate combination by using a fixed element, relating only to the pipe diameter (this can be thought of as the “connection cost” to the NTS) and a distance related (cost per km) element which applies to a range of pipe diameters;
- c) Produce an annual capital cost based on an annuity period of 10 years;
- d) Produce commoditised unit costs (in terms of p/kWh) determined assuming a standard 75% load factor.
- e) Measure the average p/kWh using a comparison between the costs at 0km and 50km.

### Text [ proposer suggested text]

Uniform Network Code – Transportation Principal Document Section B

3.12.10 For the purposes of paragraphs 3.12.9 to 3.12.14 (inclusive), the capacity of the Specified Exit Point shall be the Supply Point Capacity, provided:

in the case of an LDZ Supply Point the capacity shall be determined in accordance with Section G5.4.1, except for a LDZ Shared Supply Point in which case the capacity shall be determined in accordance with Section G1.7.17;  
for an LDZ CSEP the capacity shall be determined in accordance with paragraph 4.5.2;

in the case of an NTS Exit Point the capacity shall be equal to ~~24 times the Maximum NTS Exit Point Offtake Rate~~ the aggregate of the allocated daily energy (where this value is positive) in kWh/day at the exit point from the previous Gas Year divided by the number of days in the previous Gas Year and further divided by 75%, except:

where an NTS Exit Point has no flow history then equal to 24 times the Maximum NTS Exit Point Offtake Rate

for an NTS Exit Point in respect of a pipeline interconnector having no physical exit capability which is both a Connected Offtake System and a Connected Delivery Facility, the capacity shall be equal to ~~24 times the amount (where positive) determined as the instantaneous rate (in kWh/Hour) which the Transporter determines to be the maximum instantaneous rate at which it is feasible to deliver gas~~ the aggregate of the allocated daily energy in kWh/day from the previous Gas Year divided by the number of days in the previous Gas Year and further divided by 75% to the NTS at the System Entry Point associated with such Connected Delivery Facility.

Uniform Network Code – Transportation Principal Document Section Y (3.5 NTS Optional Commodity Rate)

The NTS Optional Commodity Rate (in pence per kWh) is site specific and is calculated by the following equation:

$$1203-1247 \times [(M)^{-0.834} - 0.78] \times D + 363 \frac{1422(M)^{-0.654} - 0.708}{D}$$

Where:

D = the direct distance from the site or non-National Grid NTS pipeline to the Specified Entry Point in km;

M = ~~Maximum NTS Exit Point Offtake Rate (MNEPOR) converted into kWh/day at the site~~ the aggregate of the allocated daily energy in kWh/day at the NTS Exit Point from the previous Gas Year divided by the number of days in the previous Gas Year and further divided by 75% except:

where the NTS Exit Point has no flow history, M = 24 times the Maximum NTS Exit Point Offtake Rate

for an NTS Exit Point in respect of a pipeline interconnector having no physical exit capability which is both a Connected Offtake System and a Connected Delivery Facility, then M shall be equal to the aggregate of the allocated daily energy in kWh/day from the previous Gas Year divided by the number of days in the previous Gas Year and further divided by 75% to the NTS at the System Entry Point associated with such Connected Delivery Facility.; and

^ = to the power of