nationalgrid

NTS GAS CHARGING DISCUSSION DOCUMENT (NTS GCD)

NTS GCD11 - Updating the Cost Inputs to the NTS Optional Commodity Charge Function

13 July 2015

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1 Executive Summary

This document is being issued by National Grid Gas plc ("National Grid") in its role as holder of the Gas Transporter Licence (the "Licence") in respect of the National Transmission System NTS.

This document sets out for discussion options for updating The Statement of Gas Transmission Transportation Charges, (the "Transportation Statement") in respect of the NTS Optional Commodity charge (known as the NTS "Shorthaul" rate). The intention is to update the cost inputs and consequently the NTS Optional Commodity charge rate. This document details the potential options on updating the formula and seeks your views on the options. All NTS Optional Commodity rates will change as a result of updating the formula and will apply to all those shippers currently on or who may request the NTS Optional Commodity charge in the future.

The NTS Optional Commodity charging product was introduced in 1998 to seek to avoid inefficient by-pass of the NTS by large sites located near to entry terminals. As the charge is an alternative to investment , the formula to calculate individual NTS Optional Commodity charge rates is derived from an estimated cost of laying and operating a dedicated pipeline of NTS specification (i.e. the estimated cost of by-passing the NTS). Shippers can elect to pay the NTS Optional Commodity charge as an alternative to the NTS SO and TO, Entry and Exit Commodity charges.

Since its introduction in 1998 the function used to calculate the Optional Commodity rates has not been amended and so is based on the costs used in 1998. Given that the formula has not been amended since 1998 this discussion document is being issued to seek views on proposals to update the associated formula. Within National Grid's Licence there are a number of obligations relevant to charging, one of which requires National Grid to keep its charges under review. It is therefore National Grid's view that a review of the cost inputs to the NTS Optional Commodity charge function is required.

At the NTS Charging Methodology Forum (NTSCMF) in September 2014 and subsequent meetings[1], National Grid raised the issue of updating the costs underpinning the NTS Optional Commodity charge formula to bring it up to date. As part of these discussions we provided analysis of the impact that the NTS Optional Commodity charge has had on the TO and SO, Entry and Exit Commodity charges.

This discussion document is being issued to seek views and comments on two proposed options for updating the existing formula in the Transportation Statement. To maintain the NTS Optional Commodity principles both options seek to update the cost whilst utilising as many of the original assumptions as possible. We have considered two options for updating the pipeline unit costs:

a) The unit costs that were provided as part of the RIIO-GT1 Price Control, and
b) The unit costs from the current approach, indexed from 1998 to current prices using relevant indices and including the new unit costs that were provided as part of the RIIO-GT1 Price Control.

[1] http://www.gasgovernance.co.uk/ntscmf

It is proposed that any changes arising from this discussion document be implemented by 1 April 2016. We believe that the timing of any change should align to the notice periods applicable to changes to charges as specified in National Grid's Licence and within the Uniform Network Code (UNC).

Updating the cost inputs via amending the formula does not require a Uniform Network Code (UNC) modification. National Grid has the ability to update the formula directly and we expect this arrangement for the NTS Optional Commodity charge to continue. However we believe that it is appropriate to seek views from the industry on any such changes and as such have issued this discussion document.

The NTS Optional Commodity charge does not affect National Grid's allowed revenue or the ability to recover the revenue within year. The NTS Optional Commodity charge does have an interaction with calculating Commodity charges, and in recent years increased use of the NTS Optional Commodity has caused an upward pressure on Commodity charges. This is due to the exemption from Commodity for those eligible flows on the NTS Optional Commodity charge. This reduces the chargeable flow base over which Commodity charges are calculated and results in higher Commodity charges[2].

This discussion document is seeking views on:

a) The approaches used to update the cost inputs;
b) The notice period for changes to the NTS Optional Commodity charge;
c) Only reviewing the cost inputs at this time and delaying a more comprehensive review of the NTS Optional Commodity charge until there is greater certainty on the EU Tariff Network Code(EU TAR) and Ofgem's Gas Transmission Charging Review (GTCR);
d) Any other NTS Optional Commodity charge elements we should consider or items you believe we have missed, that we should consider in addition to those we have highlighted.

The questions and contact information are available in section 7 of this document.

The closing date for submission of your responses to this discussion document is **21st August 2015** however we welcome any responses ahead of this date.

[2] Although not something we have seen the converse of this would also be true, that is a reduction in the use of the NTS Optional Commodity charge causes a downward pressure on the TO and SO, Entry and Exit Commodity charges

2 Governance for updating the NTS Optional Commodity Charge

The NTS Optional Commodity Charge is a charge allowed under Uniform Network Code (UNC) Section Y – Charging Methodologies, but the function that is used to calculate the individual NTS Optional Commodity rates for each application is published in the Transportation Statement. To update the methodology for applying for the NTS Optional Commodity charge or the details of the product would require a UNC Modification. However to update the cost inputs and to update the formula itself would not however there is a requirement for National Grid to publish it's intended changes with the relevant notice periods.

TO Commodity charges were introduced and are utilised as a revenue recovery charge where capacity charges are not anticipated to recover the target allowed revenue for TO Entry and TO Exit. The SO Commodity (Entry and Exit) charge is the primary mechanism to recover the SO Allowed Revenue. In setting the TO and SO Commodity charges the level of flows forecast to use the NTS Optional Commodity charge reduces the chargeable flow base over which TO and SO Commodity charges are set. Therefore the larger the flows forecast to use the NTS Optional Commodity charge, the higher the TO and SO Commodity charges (Entry and Exit) for those paying these, all other things being equal. Any revenue collected from the NTS Optional Commodity charge does partially offset the SO revenue to collect via the SO Commodity charge.

Given this interaction we have detailed how changes to each charge type are permitted under the relevant rules.

a) Changes to Commodity charges - there are two notices issued for changes to TO and SO Commodity charges. The first is carried out on a best endeavours basis to provide 150 days' notice (the 'Indicative Notice') in line with the Licence (Special Condition A4 (2)(d)). The second is to provide two months' notice of actual charges in line with UNC Section B Paragraph 1.8.2 (a) for the 'Final Notice' of changes to Commodity charges. These changes take place on 1 April and 1 October in each formula year.

b) Updating cost inputs to the NTS Optional Commodity charge formula – As this is not a change to the charging methodology it does not require a UNC Modification to Section Y. Therefore, this change will be subject to the relevant Licence Obligations relating to Charging (Standard Special Condition A4), as detailed in a) above.

We are not proposing to make any changes to the process by which National Grid manages the changes to the formula for the NTS Optional Commodity charge but are happy to discuss this separately with shippers.

3 Background

The NTS Optional Commodity charge was introduced in 1998 as a charging product that incentivised use of the NTS in order to help avoid inefficient by-pass of the NTS by large sites located near to entry terminals. As the tariff is structured as an alternative to investment, the formula to calculate individual NTS Optional Commodity rates is derived from an estimated cost of laying and operating a dedicated pipeline of NTS specification (i.e. the estimated cost of by-passing the NTS).

3.1 Overview of the current NTS Optional Commodity charge

Where users elect to use the NTS Optional Commodity charge this serves as an alternative to both the NTS TO and SO Commodity charges (Entry and Exit).

The NTS Optional Commodity charge is derived from the estimated cost of laying and operating a dedicated pipeline of NTS specification (i.e. the estimated cost of by-passing the NTS). The calculation is currently utilising the costs based on 1998 costs.

The NTS Optional Commodity charge formula is calculated based on flow rates and pipeline distances. The current formula is as follows:

p/kWh = 1230 x **M** ^-0.834 x **D** + 363 x **M** ^-0.654

Where: **D** is the direct distance of the site or non-National Grid NTS Pipeline to the elected Entry Terminal

M[3] is the Maximum NTS Exit Point Offtake Rate (MNEPOR) at the site, converted into kWh/day

^ means 'to the power of..'

The NTS Optional Commodity charge is available to all daily-metered supply points. It was envisaged at the time of its introduction that it would be attractive for large supply points situated close to terminals.

Shippers cannot nominate a storage Entry point or storage Exit point as part of the NTS Optional Commodity charge process. Shippers can nominate a number of Exit points against the same non-storage Entry Terminal but cannot nominate multiple Entry Terminals to the same Exit point[4].

The formula has been unchanged since 1998 and, whilst there have previously been discussions with the industry on this charge no updates were made to the formula. There have also been no updates to the cost inputs used in the process to generate the original formula.

[3] This is labelled 'SOQ' in the Transportation Statement. For ease we are using M in this document. The definitions are the same.
[4] Mod 534 is currently being developed to address a specific issue at Bacton

Therefore those shippers using the NTS Optional Commodity charges as an alternative to Commodity charges today will have a rate based on 1998 prices and using it as an alternative to the current years TO and SO (Entry and Exit) Commodity charges.

3.2 Review of the NTS Optional Commodity Charge – Industry Discussions

National Grid has been discussing the NTS Optional Commodity charge at the NTS Charging Methodology Forum (NTSCMF) since September 2014. A number of issues have been analysed and presented at NTSCMF.

We believe the issues with the existing NTS Optional Commodity charge are:

1. The increased interaction with Commodity charges;
2. How the NTS Optional Commodity charge is utilised; and
3. The unit costs being out of date.

More detail on these is provided below.

3.2.1 Increased interaction with Commodity charges

At the time the NTS Optional Commodity charge was introduced only the SO Commodity charge existed but since then TO Commodity charges have been introduced therefore the NTS Optional Commodity charge currently provides an exemption from all TO and SO Commodity charges. When the NTS Optional Commodity charge was first introduced it only provided an exemption from the SO Commodity charges.

Over time there has been an increased impact on Commodity charges as the volumes associated to the NTS Optional Commodity charge have increased. This has resulted in higher TO and SO , Entry and Exit Commodity charges than would otherwise have been calculated, as the NTS Optional Commodity charge volumes reduce the volumes over which the TO and SO Commodity revenues are recovered .The revenue recovered from Commodity charges has reduced as more revenue is being recovered from the NTS Optional Commodity charge. As Commodity charges have increased, the NTS Optional Commodity charge is viable over greater distances. In National Grid's view this is contrary to the original principles of the NTS Optional Commodity charge being a product which incentivises use of the NTS rather than considering investing in a bypass of the NTS over a short distance for large sites located near terminals[5].

3.2.2 Use of the Optional Commodity charge

There has been an increase in the use of the NTS Optional Commodity charge. As the TO and SO (Entry and Exit) Commodity charges have increased the NTS Optional Commodity charge appears more attractive as an alternative to the Commodity charges rather than as an incentive to use the NTS and not to invest in constructing a pipeline bypassing the NTS by Users. As there is no

[5] More detail on this can be found in the NTSCMF material from February 2015: http://www.gasgovernance.co.uk/sites/default/files/Shorthaul%209%20February%20NTSCMF%2009%2002%202015%20v2%200.pdf

mechanism to determine the rationale for shippers selecting the NTS Optional Commodity charge or assessment to ascertain whether it is being used as an alternative to investment this means that the relevance of the overall product may not be in keeping with the overall objectives and principles of the NTS Optional Commodity charge. Therefore in our view there is a need to review the NTS Optional Commodity charge to ensure it is still fit for purpose when being measured against its original objectives.

3.2.3 Cost input changes

Whilst there have been some discussions and proposals on revising the NTS Optional Commodity charge since 1998, there have been no changes to the formula to reflect increases in investment costs. This means that the NTS Optional Commodity charges are being calculated on a formula based on 1998 costs and are therefore out of date and in need of updating. Updating the cost inputs will result in a change to the four numerical values in the equation which, in turn would result in different NTS Optional Commodity charges being calculated for all those on or wishing to request the NTS Optional Commodity charge.

It is also worth noting that there is some disparity between the underlying principles that calculate all other charges (e.g. they are based on current allowed revenues, forecast demand and forecast flows for a given year). As Commodity charges, which for the SO are the primary mechanism to recover the costs for the SO activities, are based on revenue and flow data for the year in question this means that there is a difference between the NTS Optional Commodity charges and the SO Commodity charge calculation. The same can be said for TO Commodity charges in that, whilst they are utilised as revenue recovery mechanisms for any revenues not recovered through capacity charges, the underlying revenues and flows are relevant to the current year.

3.3 Feedback

At the February 2015 NTSCMF options were discussed on how the NTS Optional Commodity charge could be brought up to date. National Grid proposed that such a review of the NTS Optional Commodity charge could focus on three elements which were:

a) Review of the NTS Optional Commodity charge formula to bring the cost inputs up to date;
b) Review the access and use regarding the methodology of using the NTS Optional Commodity charge;
c) Review the principles underpinning the NTS Optional Commodity charge product to ensure it is relevant and that any changes are in line with the objectives of such a charging product.

Feedback from those attending NTSCMF was that a review of the methodology and the broader objectives of the NTS Optional Commodity charge would be better delayed until there was more certainty around the EU Tariff Network Code (EU TAR) and the outcome from Ofgem's Gas Transmission Charging Review (GTCR) and that it was appropriate to review of the cost inputs to bring them up to date. It was recognised that this would not address all the issues regarding the NTS Optional Commodity charge, but that it would be a step in the right direction and should be the focus at this time. We have taken on board this feedback and National Grid proposes to delay a review of the access and broader methodology of the NTS Optional Commodity charge until a later

stage. We anticipate that such a review could take place alongside the EU TAR and the GTCR as any changes driven by these areas. In our opinion, changes related to EU TAR and GTCR are more likely to require a methodology changes and it will be more efficient to do this with industry when there is a clear picture on how these wider reaching developments impact the NTS Optional Commodity charging product. Both the EU TAR and the GTCR have expected implementation dates of October 2017. Whilst we recognise there may be a requirement to review the NTS Optional Commodity charge as a result of any changes driven by these wider industry developments, this should not prevent us reviewing the cost inputs to the current NTS Optional Commodity charge formula in the meantime.

We believe that the cost inputs should be brought up to date thereby providing greater cost reflectivity and also in our view addressing some of the imbalance of charges between shippers who pay TO and SO Commodity charges and those who pay NTS Optional Commodity charges.

3.3.1 Proposed Scope of review

We have therefore looked at options regarding updating the cost inputs to the NTS Optional Commodity charge formula will aim to achieve the following:

- Bring the cost inputs up to date using available reference values for unit costs and / or to use available market indices to update current costing values;
- To use as many of the original assumptions as possible to ensure the consistent application of the NTS Optional Commodity charges;
- To use the existing methodology thus not requiring a UNC Modification.

It is our intention to continue to review and update the costs during the normal charge setting arrangements as mentioned in section 5.9 (e.g. updating costs each year using RPI).

3.4 Further industry engagement

The proposals outlined in this document will be discussed at the next NTS Charging Methodology Forum (NTSCMF) on 22 July 2015[6]. Alternatively any questions can be sent to us using the details in Section 7 of this document.

We recognise this change to update the cost inputs that would amend the NTS Optional Commodity charge formula will impact NTS Optional Commodity charges for shippers and, in turn, the TO and SO Commodity charges.

In order to ensure that we maximise the audience for this document, in addition to issuing this consultation via the Joint Office, and publishing the consultation on the National Grid website[7], we will also be issuing a letter via Xoserve, during week commencing 13 July 2015, to all shippers with an NTS Optional Commodity charge to inform them of this consultation and the associated timescales.

[6] http://www.gasgovernance.co.uk/ntscmf/220715
[7] http://www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Charging-methodology/Gas-Charging-Discussion-papers/

4 Proposed options for NTS Optional Commodity Charge function update

Following feedback from industry, we have reviewed the cost inputs to the process from which NTS Optional Commodity charges are calculated, which we believe would better satisfy the cost reflective Licence objective (which is one of the charging obligations in National Grid's Licence).

In reviewing the costs we have ensured that, where possible, we retain as many of the underlying assumptions to maintain consistency with the original principles.

4.1 Methodology behind the original NTS Optional Commodity Charge Analysis

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.

Our review and analysis is based on the same steps but where it has been necessary to consider changes to this it has been noted.

4.2 Proposed Options

This review is putting forward two options for updating the construction costs in the underlying formula.

In determining the options produced for discussion within this consultation we have been keen to ensure that:

- The underlying assumptions in generating the current NTS Optional Commodity charge formula remain unchanged.
- That we retain the same structure in the formula, thereby only resulting in updates to the four numerical constants in the equation.

The options we have produced for consideration use one of two sources to bring a cost portfolio of pipe sizes up to date. These can be seen in Table 1below:

Table 1 Options

Options	Option Details
Option One	Using pipe sizes and unit costs that were provided under the RIIO-GT1 Price Control.
Option Two	Updating the current portfolio of unit costs using publicly available indices and including the pipe sizes and unit costs that were provided for under the RIIO-GT1 Price Control.

4.3 Variations to the Original Analysis

4.3.1 Pipe Sizes

The current NTS Optional Commodity charge calculation in determining the formula was completed based on the pipe sizes available and utilised in 1998. The portfolio of pipe sizes that National Grid NTS is likely to construct has changed significantly therefore this is one area that requires reviewing under the two options being proposed. A summary of the portfolio of pipe sizes can be seen in Table 2 below:

Table 2 Portfolio of pipe diameters currently used compared to those in the two options

1998 – Original Portfolio (Current)	Option One Portfolio	Option Two Portfolio
50 mm		**50 mm**
100 mm		**100 mm**
150 mm		**150 mm**
200 mm		**200 mm**
300 mm		**300 mm**
450 mm		**450 mm**
600 mm		**600 mm**
	610 mm	**610 mm**
	915 mm	**915 mm**
	1220 mm	**1220 mm**

More detail on how pipe diameters have been used and treated in each of the options can be seen in the detail under each of option section.

4.3.2 Flow Rates

The current provided NTS Optional Commodity charge function was determined using flow rates up to 15mcm. In reality the actual flow rates of the Exit points can be higher hence to ensure this is more reflective of actual operation in both Options we are increasing the range of flow rates from 0.1 – 15 mcm (as used in the original analysis) to 0.1 – 60mcm.

4.4 Option One

The key element to Option One is it uses pipe sizes which were used in unit costs under the agreed RIIO-GT1 Price Control. This would ensure that the costs that underpinned the calculation of Optional Commodity charges were based on costs related to National Grid's Price Control settlement and give comfort that the values being used having been agreed by Ofgem. There are some variances to the current approach with these unit costs that need to be highlighted.

Pipe size Portfolio

This option uses only those pipe sizes for which National Grid received unit costs as part of the RIIO-GT1 Price Control agreed with Ofgem. These unit costs were for three specific pipe sizes of 610mm, 915mm and 1220mm.

We are unable to share the actual unit costs for these three pipe sizes for commercial sensitivity reasons and appreciate this is less transparent than we, or industry, would prefer. If this option were to be implemented we would seek Ofgem's confirmation that the values used for the 610mm, 915mm and 1220mm are those that were agreed under the RIIO-GT1 price control and inform the industry of this confirmation.

Costs for a minimal pipe distance

As part of the calculation, in order to minimise the changes, a fixed cost element is required. As these unit costs are only given as a single unit value and not broken down into component costs, we make an assumption with regards to the proportion of fixed costs to apply to ensure the cost equation works as it currently does. The current equation uses the 50km value as a reference to measure against the 0km cost to determine the price per km. Within the current calculations, comparing the 600mm pipeline cost at 50km compared to the 0km value, equates to 14.55% of the costs. Therefore, as all the pipe sizes being used in Option One are in excess of the 600mm pipe size, we propose to use 14.55% as a proportion of costs to be attributable to fixed costs.

Indexation

Unit costs were provided to National Grid in 2009/10 prices. In order to bring the costs up to date, we have indexed these costs to 2015/16 prices using the same RPI index that we apply when making RPI adjustments to allowances or revenues under the terms of the Licence in calculating the allowed revenues for recovery through Transmission charges.

4.5 Option Two

The key element to Option Two is the retention of the current portfolio of pipe sizes adding to them the unit costs for the three pipe sizes agreed under the RIIO-GT1 price control. This is as the existing portfolio includes pipe diameters up to 600mm and greater sizes are required in order to be more reflective of what may be built by those on/requesting the NTS Optional Commodity charge and so that realistic pipe sizes are attributed to the relevant flow rate/distance combinations. This would ensure that the costs that underpinned the calculation of Optional Commodity charges were based on a combination of costs related to National Grid's Price Control settlement and original 1998 costs adjusted using a suitable index. Option Two therefore also has some variances to the current approach with these unit costs that need to be highlighted.

Pipe size Portfolio

This option uses all the pipe sizes in the current calculation for the NTS Optional Commodity equation and also adds in those pipe sizes for which National Grid received target efficient unit costs as part of the RIIO-GT1 Price Control agreed with Ofgem. These unit costs were for three specific pipe sizes of 610mm, 915mm and 1220mm. This provides a portfolio of pipe sizes ranging from 50mm up to 1220mm.

Costs for a minimal pipe distance and variable costs

The current equation is based on a series of fixed cost values that utilising 1998 values. Due to the limited amount of projects between then and now, to update these values and to minimise the impacts on the changes, we are proposing to index these fixed costs from 1998 up to 2015/16 using RPI as outlined in the Indexation section below. This applies only to those pipe sizes / flow rate combinations that would require the use of a pipe diameter that is part of the current portfolio (i.e. between 50mm to 600mm).

As described under Option One, as part of the calculation, in order to minimise the changes a fixed cost element is required for those pipe sizes over 600mm. The proportion of the costs to be attributed to fixed costs have been calculated based on the fixed values within the current NTS Optional Commodity charge formula adjusted using RPI to bring these fixed costs in line with current prices. The current equation uses the 50km value as a reference to measure against the 0km cost to determine the price per km. Therefore the proportion of fixed costs has then been calculated as a percentage compared to the 50km total cost value to get the fixed proportion. We have then used this in the equation to provide the fixed cost element. The percentages of fixed and variable costs are different based on the different pipe sizes. For a 610mm pipe size the fixed costs proportion is 10.99%, for the 910mm pipe size the fixed proportion is 5.79% and for the 1220mm pipe size the fixed proportion is 5.46%.

Regarding the variable cost components, which are primarily the direct material costs for the pipelines, which were set in 1998 for the existing portfolio we do not have directly comparable costs to enable us to bring these up to date. To ensure a consistent approach across all the pipe diameters in the current portfolio, and to take into account of the treatment of the equivalent values under the new pipe diameters under RIIO-GT1 we are proposing the following:

a) For all those in the current portfolio, index the variable unit costs using a Steel index (K3X5 :Basic Iron & Steel & of Ferro-alloys - Non EU Imports [8], to apply the adjustment from 1998 to 2009/10; then

b) For all values either resulting from (a) or where 2009/10 prices are available (610mm, 915mm and 1220mm), adjust from 2009/10 to 2015/16 index using RPI as used under Option One to bring costs up the present.

For the Steel Index we have taken the average for Q2, Q3, Q4, and Q1 for the relevant years in order to index between the two applicable years (1998/99 – 2009/10) and divided the latest year (2009/10) of the two by the older one (1998/99). The resulting values for the relevant periods are shown below.

	1998/99		2009/10	Steel Index
Q2 1997	37.3	**Q2 2009**	70.2	
Q3 1997	36.6	**Q3 2009**	80.7	
Q4 1997	36.8	**Q4 2009**	80.4	
Q1 1998	35.1	**Q1 2010**	88.4	
Average	36.45	**Average**	79.925	2.19272977 (1998/99 – 2009/10)

For RPI we have taken the same approach but instead of using the quarterly numbers we have used the average of the monthly RPI Index values for the following two applicable years (1998/99 - 2009/10), (1998/99 – 2015/16) and divided the latest year of the two by the older one. The resulting values used for the relevant periods are shown below.

RPI Rates	
1.35587318	(1998/99 – 2009/10)
1.22664930	(2009/10 – 2015/16)

[8] Available as part of the "MM22 Producer Price Index Dataset" published under the "Produce Price Index" http://www.ons.gov.uk/ons/rel/ppi2/producer-price-index/index.html. Direct link to index: http://www.ons.gov.uk/ons/datasets-and-tables/data-selector.html?cdid=K3X5&dataset=mm22&table-id=5

Indexation

Where costs are being adjusted from 2009/10 to 2015/16 we have indexed these costs to 2015/16 prices using the same RPI index that we apply when making RPI adjustments to allowances or revenues under the terms of the Licence in calculating the allowed revenues for recovery through Transmission charges.

Where we apply a different index, notably for variable costs adjusting from 1998/99 to 2009/10, the steel index used is the "K3X5: Basic Iron & Steel & of Ferro-alloys - Non EU Imports" index taken from the Office of National Statistics website as outlined in (a) above under the "Costs for a minimal pipe distance and variable costs".

4.6 Summary of assumptions

The key assumptions used in the NTS Optional Commodity charge calculation are summarised in Table 3. The table compares the assumptions used in the original formula with the assumptions being used in the proposed options for updating the formula. Where there are some changes from the current assumptions these are highlighted in **bold blue italics** in Table 3 as explained under section 4.3, 4.4 and 4.5.

Table 3 Summary of assumptions

Comparison of the current and proposed option parameters		
Current	**Option One**	**Option Two**
• 75% load factor • 10 years annuitisation factor • MNEPOR and distance based • Pipe sizes (50 – 600mm) • 50km reference distance • 0.1 – 15mcm • Fixed element and a distance related element • 1998 prices	• 75% load factor • 10 years annuitisation factor • MNEPOR and distance based • ***Pipe sizes (610 – 1220mm)*** • 50km reference distance • ***0.1 – 60mcm*** • ***Fixed element and a distance related element*** • ***2015/16 prices***	• 75% load factor • 10 years annuitisation factor • MNEPOR and distance based • ***Pipe sizes (50 – 1220mm)*** • 50km reference distance • ***0.1 – 60mcm*** • ***Fixed element and a distance related element*** • ***2015/16 prices***

5 Analysis

5.1 Overview of analysis

The analysis shown in this section shows the comparison between the two options and the existing NTS Optional Commodity charging arrangements. We also include an additional scenario that we believe is helpful as it provides a reference point for the assessment of the two options. The additional scenario is based on the current set up with all cost components updated for RPI to bring them up to 2015/16. We feel this is a helpful comparison to show as it gives an indication of the impact if the costs had been adjusted for inflation over time to show how rates might have changed rather than remain fixed. This shows the variance between using 1998 prices and 2015/16 prices on the current suite of parameters.

A summary of the options modelled is outlined below:

a) '**Current**' refers to the current arrangements for the NTS Optional Commodity charge.
b) '**Current RPI**' takes the current arrangements and adjusts all cost components using RPI to update them to 2015/16 prices.
c) **Option One** is outlined in section 4.4 bringing costs up to 2015/16 prices using unit costs that were agreed under the RIIO-GT1 Price Control.
d) **Option Two** is outlined in section 4.5 ,bringing costs up to 2015/16 prices using a combination of the existing portfolio of pipe diameters and including the pipe sizes and unit costs that were agreed for under the RIIO-GT1 Price Control.

The analysis shown here provides for each option:

- The NTS Optional Commodity charge formula that would be applicable.
- The impact on NTS Optional Commodity rates for specific flow rates and distances.
- The impact on NTS Optional Commodity revenues.
- The impact on other Commodity charges.
- The impact on user groups that use the NTS Optional Commodity charge.

5.2 Results

Table 4 below details the original formula (current) and the updated formulae based on each option. Using the equations outlined in this section it will be possible for those shippers currently using an NTS Optional Commodity charge to determine their own rates under the options presented. All rates detailed in this section are illustrative (only on specific flow rate and distance combinations) and should only be seen as a guide as they will not show the exact individual Optional Commodity rates. Should you require any help in determining NTS Optional Commodity rates under the options presented please contact us using the details in Section 7 of this document.

Table 4 Results

Scenario	Formula
Current	1203*M^-0.834*D + 363*M^-0.654
Current RPI	2061*M^-0.853*D + 604*M^-0.654
Option One	16652*M^-0.920*D + 101114*M^-0.900
Option Two	1247*M^-0.780*D + 1422*M^-0.708

Where: D is the direct distance of the site or non-National Grid NTS Pipeline to the elected Entry Terminal

M[9] is the Maximum NTS Exit Point Offtake Rate (MNEPOR) at the site, converted into kWh/day

^ means 'to the power of..'

[9] This is labelled 'SOQ' in the Transportation Statement. For ease we are using M in this document. The definitions are the same.

5.3 Options Analysis

The series of graphs below show the NTS Optional Commodity charges associated with each option, Current, Current RPI, Option One and Option Two, utilising the formula as shown in Table 4.

Also shown in the Figures below is the Combined Commodity[10] rate, as at 1 April 2015, which illustrates that those rates below the Commodity rate line show the potential flow rate and distance combinations that could have NTS Optional Commodity rates below that of the Combined Commodity rate. Those NTS Optional Commodity rates that are above the Combined Commodity rate would likely not benefit from being on the NTS Optional Commodity rate.

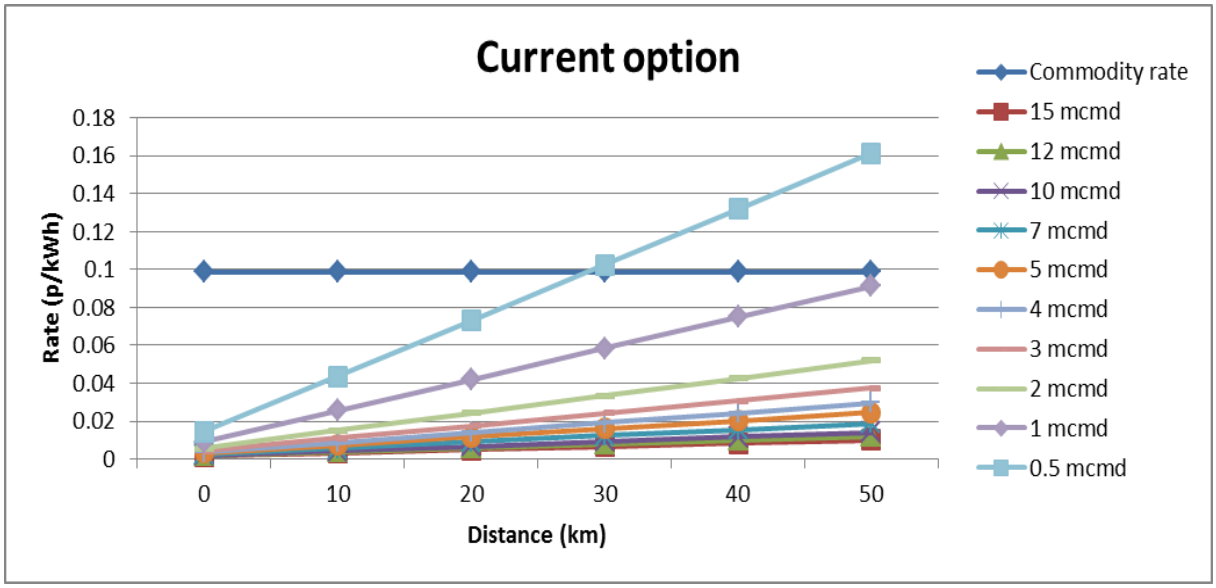
In all the analysis shown the comparisons are produced based on the 2015/16 Commodity charges and the calculations that underpin them. This includes forecast NTS Optional Commodity volumes, forecast demands for Commodity charges and Allowed Revenues for the year.

A summary of the impact on NTS Optional Commodity charges is available in section 5.8 Table11 which details , for a range of flow rate and distance combinations, how the NTS Optional Commodity Rates would change therefore giving an indication of how rates could be impacted. This should provide Shippers with an approximation of the impact, the exact impact can be calculated using the formula in Table 4, or if there are any questions please contact us using the details in Section 7 of this document.

5.3.1 Current

Under the Current scenario a site with a flow rate of 1mcm and a distance of 50km would benefit from the NTS Optional Commodity charge, whilst a 0.5mcm site with a distance of 50km would not benefit from being on the NTS Optional Commodity charge. This can be seen in Figure 1.

Figure 1 Current

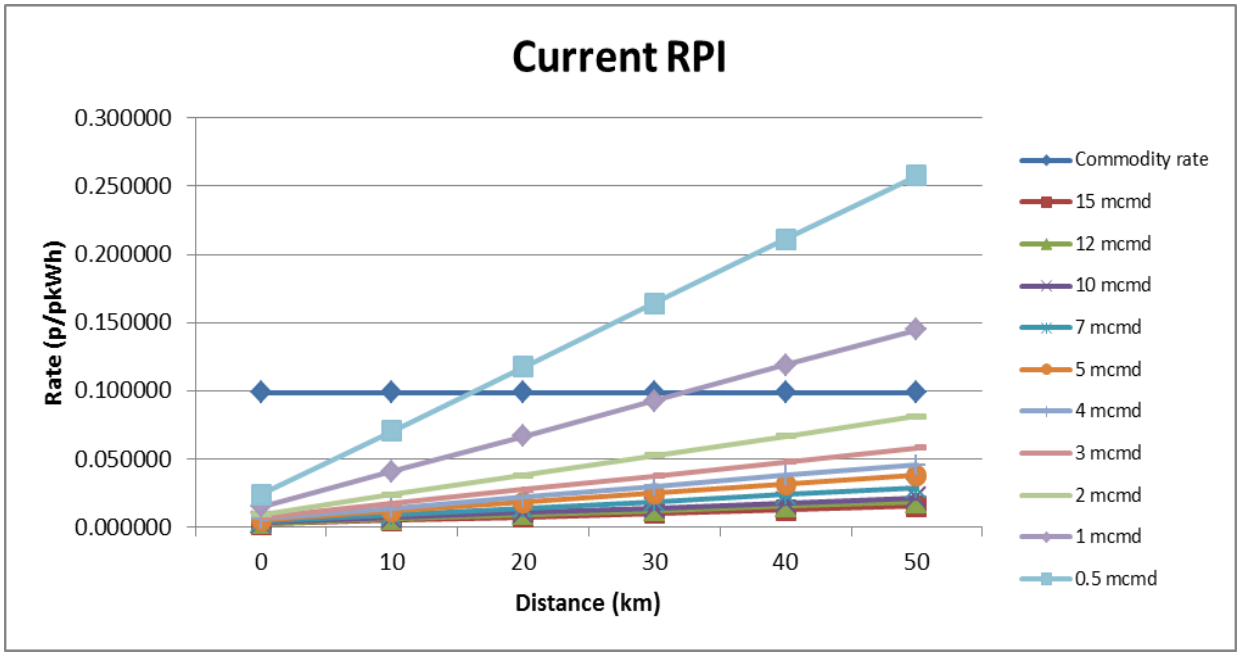


[10] Combined Commodity is the sum of the TO and SO (Entry and Exit) Commodity charges.

5.3.2 Current RPI

Figure 2 shows the flow rate and distance combinations that would still be eligible for the NTS Optional Commodity charge when the formula is updated by updating the original cost up to 2015/16 prices using RPI. All those NTS Optional Commodity rates that would be below the Commodity rate would likely benefit from the NTS Optional Commodity charges and those NTS Optional Commodity charges that would be above the level of the Combined Commodity rate line would likely not benefit from being on an NTS Optional Commodity charge.

Figure 2 Current RPI

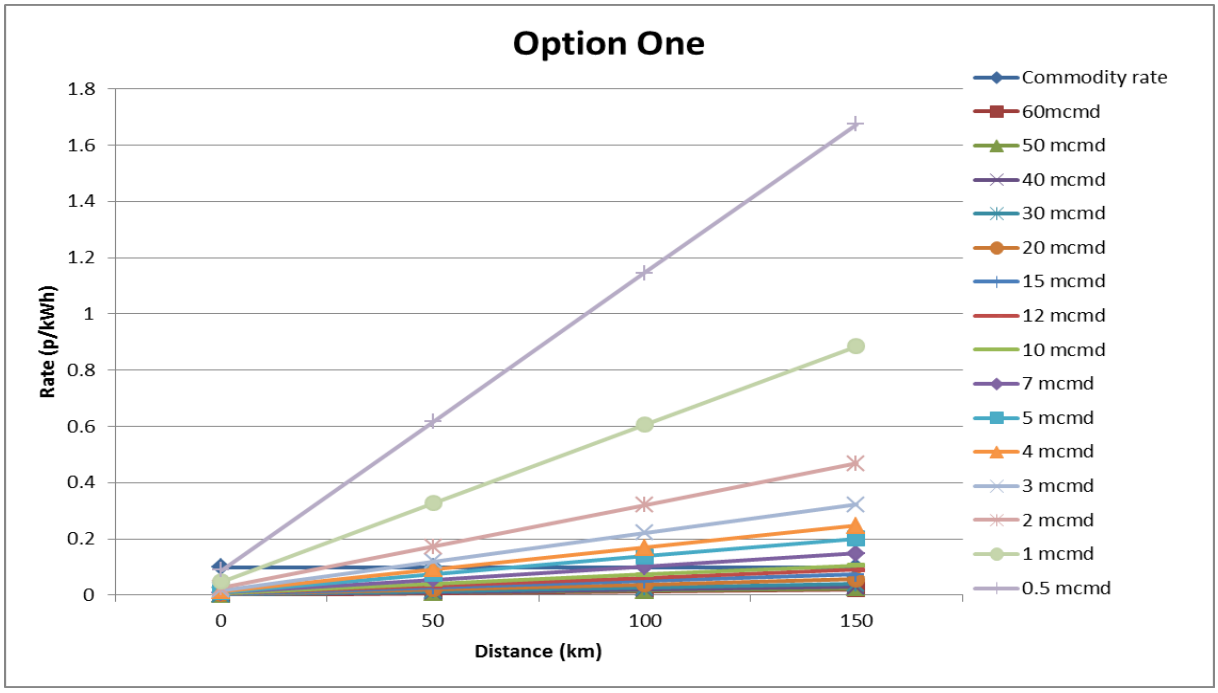


For example: A site with a flow rate of 2mcm and distance of 50km would still benefit from an NTS Optional Commodity Charge, whilst a 1mcm site with a distance over 40km would likely not benefit from being on the NTS Optional Commodity charge.

5.3.3 Option One

Figure 3 shows Option One which only uses the unit costs that were agreed under the RIIO-GT1 price control for the larger pipe diameters. This means that the smaller pipe sizes are no longer used meaning that the combinations of small distances and low flow rates are likely to see higher increases from current rates. Those with distance / flow rate combinations that would use larger pipe sizes (e.g. high flow rates and large distances) would see smaller changes from the current rates.

Figure 3 Option One

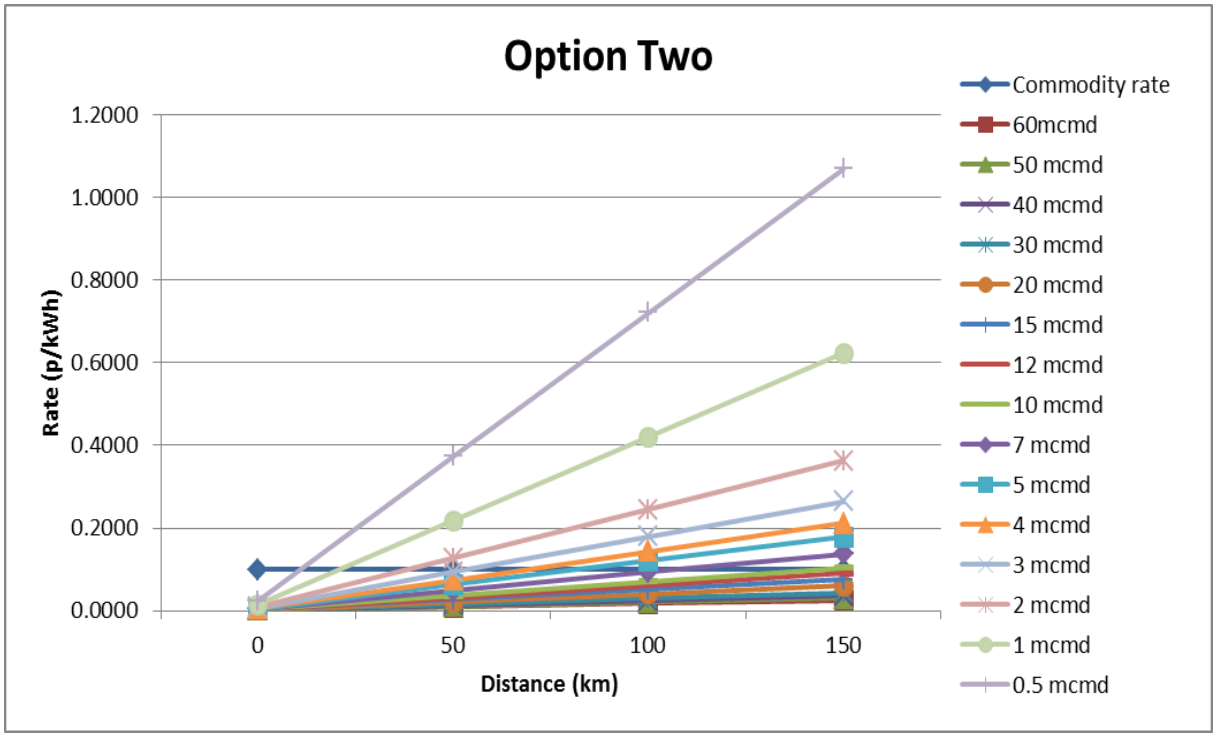


For example: A 4mcm site with a distance of 50km would still benefit from the NTS Optional Commodity charge, whilst a site of 3mcm over the same distance would not benefit from being on the NTS Optional Commodity charge.

5.3.4 Option Two

Figure 4 shows the impact of using the unit costs that were part of the agreed RIIO-GT1 price control for the big pipe sizes and updated 1998 unit costs for all other pipe diameters in the current portfolio of pipe sizes.

Figure 4 Option Two



For Example: Under Option Two a 3mcm site with a distance of 50km would still benefit from the NTS Optional Commodity Charge, whilst a 2mcm site over the same distance would not benefit from being on NTS Optional Commodity charge.

As Option Two is using the current portfolio of unit costs and the portfolio that was agreed under the RIIO-T1 price control, this means that the percentage increase for prices associated with the smaller size pipes will not be as big as Option One as the smaller pipe sizes are still utilised in Option Two.

5.4 NTS Optional Commodity Charge interaction with Commodity rates

Table 5 and Figure 5 below details the impact the different options would have if we updated the NTS Optional Commodity charge formula and assumed that those currently on the NTS Optional Commodity Charge remained on the NTS Optional Commodity charge even when their NTS Optional Commodity charge rates are higher than the Commodity rates. These comparisons are based on using the April 2015 Commodity charges.

Table 5 Impact on Commodity charges – Shippers remain on NTS Optional Commodity Charge

Commodity Charges	Current p/kWh	Current RPI p/kWh	Option One p/kWh	Option Two p/kWh	Current and Option One % variance	Current and Option Two % variance
TO Exit Commodity	0.0198	0.0198	0.0198	0.0198	0%	0%
TO Entry Commodity	0.0451	0.0451	0.0451	0.0451	0%	0%
SO Commodity	0.0169	0.0161	0.0142	0.0144	-16.0%	-14.8%
Combined Commodity*	0.0987	0.0971	0.0933	0.0937	-5.5%	-5.1%

*Combined Commodity is the sum of the TO and SO (Entry and Exit) Commodity charges. When including the SO Commodity this should be multiplied by two as the rate applies to SO Entry and SO Exit.

Figure 5 Impact on Commodity rates – Shippers remain on NTS Optional Commodity Charge

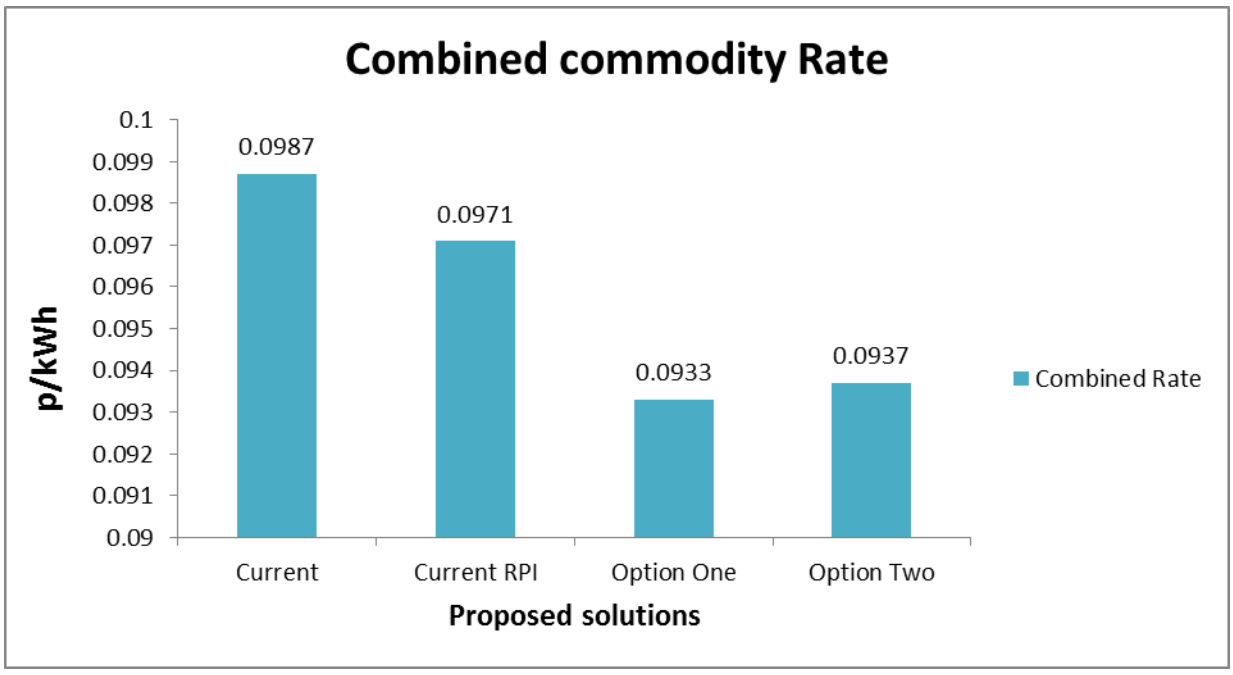


Figure 5 shows how updating the NTS Optional Commodity charge formula under Option One reduces the current Combined Commodity rate by 5.5% and also reduces the Current SO Commodity rate by 16%. Under Option Two the Current Combined Commodity rate is reduced by 5.1% and the Current SO Commodity rate is reduced by 14.8%. For both options the TO Entry and TO Exit

Commodity charges remain unchanged as these would only change if there were any volumes switching away from using the NTS Optional Commodity charge. This is based on the assumption that those on the NTS Optional Commodity charge will stay on the NTS Optional Commodity charge even when their rates are higher than the Commodity rate to show the maximum potential impact.

However, we recognise that should the NTS Optional Commodity charges be higher than the Combined Commodity charge shippers may elect to no longer be on the NTS Optional Commodity charge. This is explored in Table 6 and Figure 6 below and shows the impact the different options would have if we updated the NTS Optional Commodity charge formula and assumed that those currently on the NTS Optional Commodity charge would opt for the Commodity rate if their NTS Optional Commodity charge rates are higher than the Commodity rate. All are based on comparing April 2015 Commodity charges.

Table 6 Impact on Commodity Rates – Shippers switch away from NTS Optional Commodity Charge

Commodity Charges	Current p/kWh	Current RPI p/kWh	Option One p/kWh	Option Two p/kWh	Current and Option One % variance	Current and Option Two % variance
TO Exit Commodity	0.0198	0.0198	0.0197	0.0197	-0.5%	-0.5%
TO Entry Commodity	0.0451	0.0451	0.0449	0.0449	-0.4%	-0.4%
SO Commodity	0.0169	0.0161	0.0144	0.0145	-14.8%	-14.2%
Combined Commodity*	0.0987	0.0971	0.0934	0.0936	-5.4%	-5.2%

*Combined Commodity is the sum of the TO and SO (Entry and Exit) Commodity charges. When including the SO Commodity this should be multiplied by two as the rate applies to SO Entry and SO Exit.

Figure 6 Impact on Commodity Rates – Shippers switch away from NTS Optional Commodity Charge

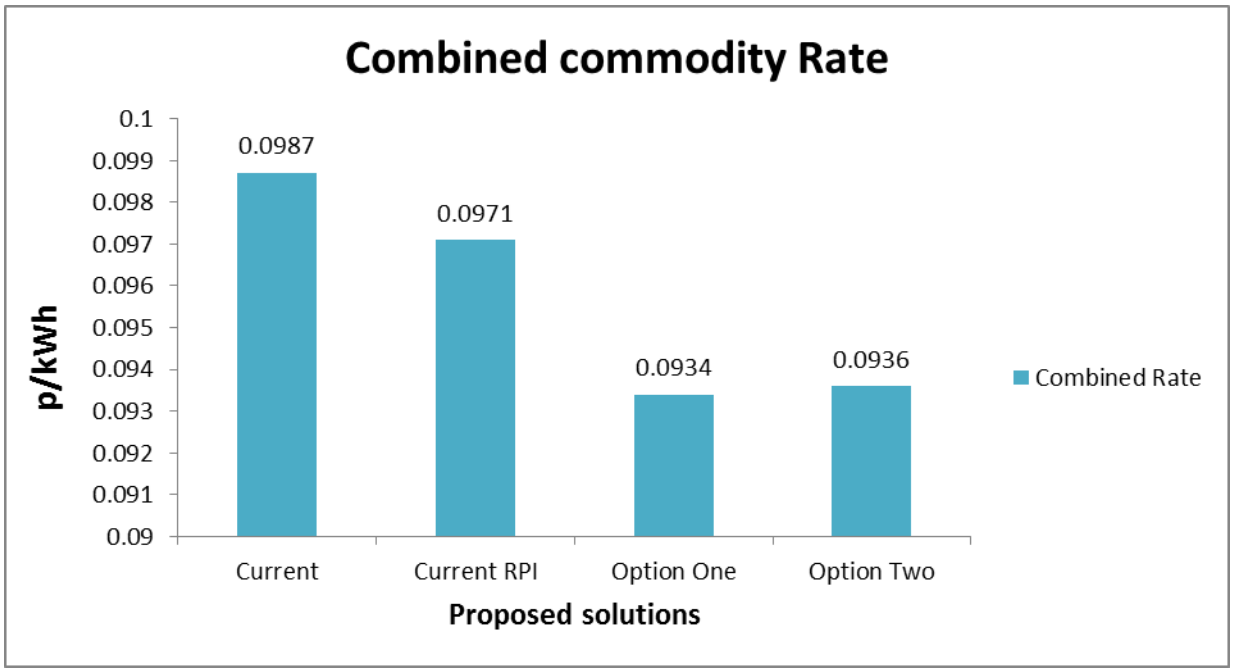


Figure 6 shows how updating the NTS Optional Commodity charge formula under Option One the Current Combined Commodity rate is reduced by 5.4% for April 2015 and the Current SO Commodity rate is reduced by 14.8%. Under Option Two the Current Combined Commodity rate is reduced by 5.2% and the Current SO Commodity Rate is reduced by 14.2%.

The TO Entry Commodity and TO Exit Commodity charges are reduced by 0.4% and 0.5%, respectively, under the two options.

The comparison between the impacts where there is or there is not a movement of volume away from the NTS Optional Commodity charge to Commodity shows that there is potentially a very small net impact (comparing the data sets under Table 5 and Table 6). This shows that there are only a small amount of volumes that would be impacted by increasing their NTS Optional Commodity Rate to being above the Combined Commodity charge.

5.5 NTS Optional Commodity Charge interaction with revenues

Table 7 shows the impact the different options would have on how the revenue is collected between the NTS Optional Commodity charges and Commodity charges. This is based on the assumption that those currently on the NTS Optional Commodity charge would still be on the NTS Optional Commodity charge even when their NTS Optional Commodity rates become higher than the Combined Commodity rate after updating the NTS Optional Commodity charge formula.

Table 7 Impact on Revenues – Shippers remain on NTS Optional Commodity Charge

Options	April 2015/16 Combined Commodity Rate p/kWh	Allowed Revenue[11] (£m) 15/16 Apr Charges	NTS Optional Commodity charge Revenue (£m)	Commodity Revenue[12] (£m)
Current	0.0987	1,037	20	595
Current RPI	0.0971	1,037	30	584
Option One	0.0933	1,037	52	563
Option Two	0.0937	1,037	51	564

Table 8 shows the impact the different options would have on how the revenue is collected between the NTS Optional Commodity charges and Commodity charges. This is based on the assumption that those currently on the NTS Optional Commodity charge would come off NTS Optional Commodity charge when their NTS Optional Commodity charge rates become higher than the Combined Commodity rate after updating the formula.

[11] Allowed Revenue is the total revenue to be recovered during 2015/16 used in the production of April 2015 charges and will include any under or over recovery as calculated in accordance with the Licence.
[12] Commodity Revenue is the residual revenue to be recovered from TO Entry, TO Exit and SO (Entry and Exit) Commodity charges.

Table 8 Impact on Revenues – Shippers switch away from NTS Optional Commodity Charge

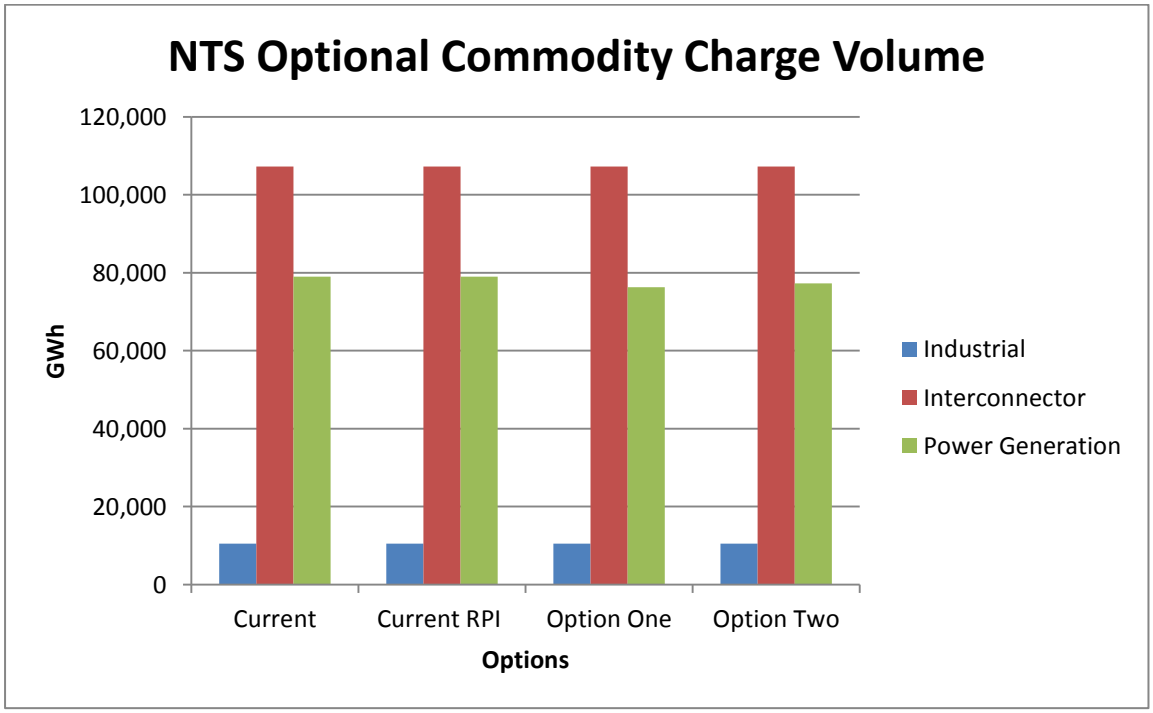
Options	April 2015/16 Combined Commodity Rate p/kWh	Allowed Revenue (£m) 15/16 Apr Charges	NTS Optional Commodity charge Revenue (£m)	Commodity Revenue (£m)
Current	0.0987	1,037	20	595
Current RPI	0.0971	1,037	30	585
Option One	0.0934	1,037	50	565
Option Two	0.0936	1,037	49	566

There is minimal difference between the values shown in Table 7 and Table 8; this is because updating the formula under both Option One and Option Two would not result in a significant change in terms of the number of sites on the NTS Optional Commodity charge. This means that after the update most of those currently on the NTS Optional Commodity charge would still have rates that are below the Commodity rate.

5.6 Impact on different Shipper sector groups

The NTS Optional Commodity charge has a different impact on the various shipper groups. We have looked at three types of sites and how their NTS Optional Commodity charge volumes could be impacted if we updated the NTS Optional Commodity charge formula; this is shown in Figure 7. We have made an assumption that all those that would have the NTS Optional Commodity charge rates, under each option, that would be higher than the Commodity rate would move their NTS Optional Commodity volumes to the Commodity rate.

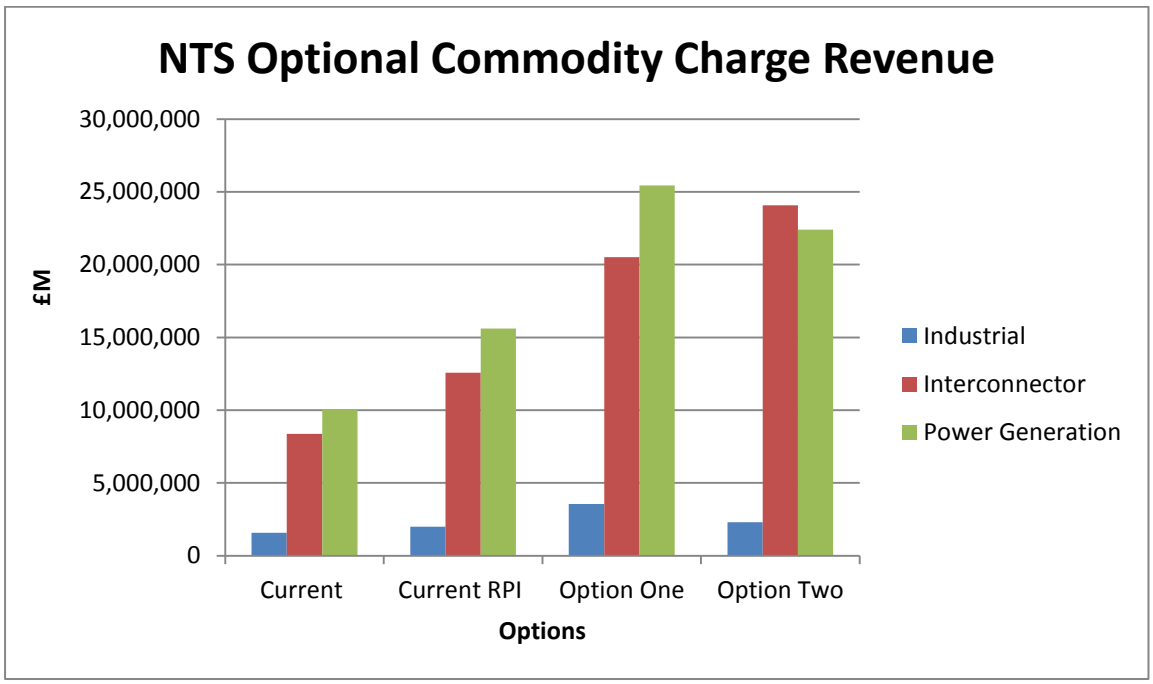
Figure 7 Shipper Sector Groups – NTS Optional Commodity Charge Volumes



Updating the NTS Optional Commodity charge increases most of the NTS Optional Commodity rates and for a minority, this increases it above the level of the Combined Commodity rates. As a result these users may opt to move away from the NTS Optional Commodity charge in favour of the Commodity charges and the total volumes likely to use the NTS Optional Commodity charge would be reduced. As can be seen in Figure 7 above this would have a relatively small impact as can be seen in the small reduction in Power Generation Volumes using the NTS Optional Commodity charge, whereas the Interconnector and Industrial user groups likely to not be impacted.

As the NTS Optional Commodity rates would typically increase under the proposed options the NTS Optional Commodity charge revenue collected from each group would be likely to see an increase as a result of these changes as can be seen in Figure 8.

Figure 8 Shipper Sector Groups – NTS Optional Commodity Revenue



Under Option One and Option Two there would be an increase in the revenue recovered although each of the two options would impact different NTS Optional Commodity charge users differently. Revenue from all User groups of the NTS Optional Commodity charge would increase under both Option One and Option Two. Revenue from Industrial Users and Power Generation Users of the NTS Optional Commodity charge would see a slightly higher increase under Option One compared to Option Two. Revenue from Interconnector Users of the NTS Optional Commodity charge would increase more under Option Two than Option One.

The different impacts are due to the combination of distance and flow rates specific to each NTS Optional Commodity charge and this is driven by the pipe size allocated to each combination which, due to the portfolio of pipe sizes used in each option, can result in a different pipe size being allocated.

These increases are spread across all those with the NTS Optional Commodity charge and there would be associated reductions in the Commodity rates as shown in Table 6 that would reduce charges for those paying Commodity charges.

5.7 Summary

Based on the analysis, we are making the assumption that after the formula is updated most of those currently on the NTS Optional Commodity charge will stay on NTS Optional Commodity charge. This is because under both of the proposed options the NTS Optional Commodity charge would still be less than the Combined Commodity rate for the majority of those currently on NTS Optional Commodity charge. Based on this assumption, the total volume attributed to the NTS Optional Commodity charge will almost be the same as it is currently, and the revenue associated to the NTS Optional Commodity charge would increase in both the proposed options. This would reduce the revenue to be collected from Commodity rates resulting in the Commodity rates being reduced under both options.

Under Option One the April 2015 Combined Commodity rate is reduced by 5.4% compared to the Current rates and under Option Two it is reduced by 5.2% compared to the Current rates. The two options, though different in some of the assumptions which are underpinning the update to the formula, have similar net changes both in terms of the impact that updating the formula would have on the Commodity rate and how the revenue is collected.

The two options result in broadly similar changes in terms of the impact on the Commodity rates and revenue from NTS Optional Commodity charges, however there will be variances on different shippers under each of the two options. The key difference between the two options is the use of different portfolios of pipe sizes in producing the NTS Optional Commodity charge formula. As they are used in both options, the changes to the costs will include unit cost values from the RIIO-GT1 Price Control indexed up to present values. This should provide comfort in the values being used having been agreed by Ofgem. With Option Two, the pipe size portfolio also retains the original portfolio of pipe sizes with costs indexed up to present values using suitable indices. With similar net impacts from the two options, we are seeking views on the approach to updating the cost inputs for the NTS Optional Commodity charge.

5.8 Summary of impacts of the proposed changes

A full of analysis is available under Section 5 above in this document. A short summary of the impacts are shown below in Tables 9 and 10 which detail the overall impact on TO and SO (Entry and Exit) Commodity charges of both Option One and Option Two. Table 11 also provides a summary table to show a range of flow rates and distances and the associated NTS Optional Commodity rate under each of the options detailed within this document.

The summary below is based on the assumption that after updating the NTS Optional Commodity charge formula, those with NTS Optional Commodity rates higher than the Combined Commodity charge would choose to withdraw from the NTS Optional Commodity charge and revert to the

standard Commodity charges. Table 9 below shows how the revenue collected from the NTS Optional Commodity charge changes under the proposed options.

Table 9 Impact on NTS Optional Commodity Charge Revenue (April 2015/16)

Options	Revenue
Current	£20m
Current RPI	£30m
Option One	£50m
Option Two	£49m

Table 9 above details that were the NTS Optional Commodity charge formula updated with costs in line with RPI for 2015/16 there would be approximately £10m more recovered through NTS Optional Commodity charges meaning £10m less being required to be recovered through Commodity charges. Under Option One there would be an increase of £30m from the current level of revenue generated from NTS Optional Commodity Charges resulting in the equivalent amount not being required to be recovered from the Commodity charges. Under Option Two there would be an increase of £29m from the current level of revenue generated from NTS Optional Commodity Charges resulting in the equivalent amount not being required to be recovered from the Commodity charges.

The increases in the NTS Optional Commodity charge revenue would result in a decrease in the revenue being collected from Commodity charges therefore reducing the other Commodity rates. Table 10 below shows the impact the NTS Optional Commodity charges update under the proposed options would have on the specific Commodity rates.

Table 10 Impact on Commodity charges (April 2015/16)

Commodity Charges	Current p/kWh	Current RPI p/kWh	Option One p/kWh	Option Two p/kWh	Current and Option One % variance	Current and Option Two % variance
TO Exit Commodity	0.0198	0.0198	0.0197	0.0197	-0.5%	-0.5%
TO Entry Commodity	0.0451	0.0451	0.0449	0.0449	-0.4%	-0.4%
SO Commodity	0.0169	0.0161	0.0144	0.0145	-14.8%	-14.2%
Combined Commodity*	0.0987	0.0971	0.0934	0.0936	-5.4%	-5.2%

*Combined Commodity is the sum of the TO and SO (Entry and Exit) Commodity charges

Table 10 shows how updating the NTS Optional Commodity charge formula under the two proposed options reduces the current Combined Commodity rate by 5.4% under Option One and by 5.2% under Option Two. Changing the NTS Optional Commodity charges impacts the SO Commodity more due to the increased NTS Optional Commodity Revenue reducing the revenue to collect from the SO Commodity charge. The TO Commodity charges are only reduced where there is any volume movement from the NTS Optional Commodity charge to the Combined Commodity charge. The proposed options reduce the SO Commodity rate by 14.8% under Option One and 14.2% under Option Two.

Table 11 shows a summary of NTS Optional Commodity rates under the options being discussed and provides for a range of flow rates and distances. This shows how for each combination of flow rate and distance the rates differ under each option and this should help shippers understand the potential impact on their NTS Optional Commodity charges. The net charging impact of a change to both the NTS Optional Commodity charge and the Combined Commodity charge decreases (as shown in Table 10) should be considered by Shippers for the overall impact to be assessed.

Table 11: Summary of NTS Optional Commodity Rates for a range of flow rates and distances

MCM	Distance (km)	Current	Current RPI	Option One	Option Two
0.1	0	0.0410	0.0682	0.3773	0.0763
	25	0.3229	0.5300	1.5391	0.6874
	50	0.6047	0.9917	2.7009	1.2985
	75	0.8866	1.4535	3.8628	1.9096
	100	1.1684	1.9152	5.0246	2.5207
10	0	0.0020	0.0034	0.0060	0.0029
	25	0.0080	0.0124	0.0228	0.0198
	50	0.0140	0.0215	0.0395	0.0366
	75	0.0201	0.0306	0.0563	0.0534
	100	0.0261	0.0397	0.0730	0.0702
20	0	0.0013	0.0021	0.0032	0.0018
	25	0.0047	0.0072	0.0121	0.0116
	50	0.0080	0.0122	0.0209	0.0214
	75	0.0114	0.0172	0.0298	0.0312
	100	0.0148	0.0222	0.0386	0.0410
30	0	0.0010	0.0016	0.0022	0.0013
	25	0.0034	0.0052	0.0083	0.0085
	50	0.0058	0.0087	0.0144	0.0156
	75	0.0082	0.0123	0.0205	0.0228
	100	0.0106	0.0159	0.0266	0.0299
40	0	0.0008	0.0014	0.0017	0.0011
	25	0.0027	0.0041	0.0064	0.0068
	50	0.0046	0.0069	0.0111	0.0125
	75	0.0065	0.0097	0.0158	0.0182
	100	0.0084	0.0125	0.0204	0.0239
50	0	0.0007	0.0012	0.0014	0.0009
	25	0.0023	0.0035	0.0052	0.0057
	50	0.0038	0.0058	0.0090	0.0105
	75	0.0054	0.0081	0.0128	0.0153
	100	0.0070	0.0104	0.0167	0.0201

The key impacts of the proposed options are:

- An increase in Revenue from NTS Optional Commodity charges under Option One and Option Two of £30m and £29m respectively.
- The Combined Commodity rate is reduced by around 5% under both options whilst the TO Entry Commodity and TO Exit Commodity reduces by 0.4% and 0.5% respectively under both options. The SO Commodity Charge is affected most with reductions under Option One and Option Two of 14.8% and 14.2% respectively.
- The net impact on shippers will depend on their use of the NTS Optional Commodity charge and the balance between changes to the NTS Optional Commodity charge and the reductions in the Commodity charges,

Therefore, in our view, the changes provide a positive step change in redressing the imbalance of revenues being recovered from those using the NTS Optional Commodity charge and those who pay Commodity charges, whilst retaining access to the product for most.

5.9 Enduring arrangements

The changes being proposed under the two options provide a foundation upon which to adjust cost inputs to update future year's NTS Optional Commodity charges through amending the formula.

We would not produce a discussion document for such changes and any such change, such as adjustments for inflation, would be communicated through the standard industry communications when setting indicative and final Commodity charges.

When more certainty is available regarding the GTCR and EU TAR developments we will be able to assess the potential impact on the NTS Optional Commodity Charging Product and, as mentioned in Section 3.3, we will review this with the industry.

6 Relevant Objectives

6.1 Assessment against Licence Objectives

The Licence requires that proposed changes to the Charging Methodology better facilitate the relevant methodology objectives. Respondents are therefore asked to consider how the different options would best satisfy the relevant objectives as part of their responses to this discussion paper.

Where transportation prices are not established through an auction, prices calculated in accordance with the methodology should:

1) Reflect the costs incurred by the licensee in its transportation business;
2) So far as is consistent with (1) properly take account of developments in the transportation business;
3) So far as is consistent with (1) and (2) facilitate effective competition between gas shippers and between gas suppliers.

6.2 Assessment against EU Gas Regulations

Proposed changes should also comply with EC Regulation 1775/2005 on conditions for access to the natural gas transmission networks (binding from 1 July 2006). The conditions are summarised below.

- The principles for network access tariffs or the methodologies used to calculate them shall:
    - Be transparent
    - Take into account the need for system integrity and its improvement
    - Reflect actual costs incurred for an efficient and structurally comparable network operator
    - Be applied in a non-discriminatory manner
    - Facilitate efficient gas trade and competition
    - Avoid cross-subsidies between network users
    - Provide incentives for investment and maintaining or creating interoperability for transmission networks
    - Not restrict market liquidity
    - Not distort trade across borders of different transmission systems

7 Questions for discussion and contacts

National Grid would welcome responses to the following questions to help us in reviewing the NTS Optional Commodity charge and inform our decision on which approach to use to update the calculation:

Question 1: Do respondents prefer Option One or Option Two as the most reasonable approach, and most consistent with facilitating the relevant objectives, to update the underlying costs of the formula in an effort to bring the NTS Optional Commodity charge formula more up to date?

Question 2: Do you agree with the proposal to delay reviewing the methodology / access and flexibility of the NTS Optional Commodity charge until EU TAR / GTCR is more certain?

Question 3: Do respondents agree with our proposed approach on timescales for notifying a change to NTS Optional Commodity charges, following the same notice periods as for other NTS charges? If not what do you believe these should be?

Question 4: Do respondents believe 1 April 2016 is an appropriate implementation date? If not what do you believe the implementation date should be and why?

Question 5: Are there any elements that you feel we should take into consideration, or that you believe we have missed and should take into account, in the two options being considered for reviewing the NTS Optional Commodity Charge?

The closing date for submission of your responses is **Friday 21st August**. Your response should be e-mailed to:

box.transmissioncapacityandcharging@nationalgrid.com

If you wish to discuss any matter relating to this proposed change please contact Thomas Dangarembizi (thomas.dangarembizi@nationalgrid.com or 01926 653956) or Colin Williams (colin.williams@nationalgrid.com or 01926 655916).

Responses to this discussion paper may be incorporated within National Grid's subsequent conclusions paper and made available on our website. If you wish your response to be treated as confidential then please mark it clearly to that effect.

We welcome any responses ahead of the closing date of **Friday 21st August** and will only publish non- confidential responses once the closing date has passed.

8 Version History

Version	Date of update	Detail
1.0	13 July 2015	Date of initial publication
1.1	14 July 2015	Update to commentary under Figure 8
1.2	23 July 20 15	Update to Section 4.5 - Option Two. Update to show the indexation values used to update the cost inputs to the NTS Optional Commodity charge formula as requested at the 22 July 2015 NTSCMF.