

0517/A:

Review of the Supply Matching Merit Order in Setting Capacity Charges A – with Timing of Resultant Price Changes

At what stage is this document in the process?



This modification seeks to amend the current Merit Order which is specified in UNC TPD Section Y so that it aligns to the current utilisation of the supply.

It is proposed to combine the supply which is against MRS and LNG into one group within the Merit Order and prorate as currently specified in the methodology.



The Workgroup recommends that this modification should now proceed to consultation



High Impact:



Medium Impact:
Gas Distribution Network Operators,
Shippers and Suppliers



Low Impact:
National Grid Transmission

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About this document:

This report will be presented to the panel on **15 January 2015**

The panel will consider whether the modification should proceed to consultation or be returned to the workgroup for further assessment.

The Workgroup recommends the following timetable:

Initial consideration by Workgroup	31 October 2014
Amended Modification considered by Workgroup	n/a
Workgroup Report presented to Panel	15 January 2015
Draft Modification Report issued for consultation	16 January 2015
Consultation Close-out for representations	05 February 2015
Final Modification Report presented to Panel	10 February 2015
UNC Modification Panel decision	19 February 2015



Any questions?

Contact:
Code Administrator



enquiries@gasgovernance.co.uk



0121 288 2107

Proposer:
0517 – Laura Butterfield
A – Richard Pomroy



laura.butterfield@nationalgrid.com
richard.pomroy@wwutilities.co.uk



01926 656160
07812 973337

Additional contacts:



1 Summary

Is this a Self-Governance Modification?

Self-Governance does not apply as this modification is likely to impact commercial activities connected with the shipping, transportation or supply of gas conveyed through pipes.

Is this a Fast Track Self-Governance Modification?

Fast Track Self-Governance does not apply as it is not properly a house keeping modification.

Why Change?

The Merit Order within the Transportation Model was implemented as part of GCM16 in 2009. At the time the Merit Order reflected the utilisation of supply. National Grid must keep the charging methodology under review as part of its Licence conditions. Therefore the ordering of the supply source groups should be kept under review to reflect further developments in supplies and be consistent with what happens on the network.

In recent years there has been a change in selective utilisation of Liquefied Natural Gas (LNG) and Mid Range Storage (MRS). We have seen an increase in the use of MRS and a decrease in the amount of LNG that is being utilised. Both these sources have been utilised on any cold day in recent years.

Solution

It is proposed to amend the current Merit Order which is specified in UNC TPD Section Y so that it aligns to the current utilisation of the supplies in the current years.

This modification proposes to amend the Merit Order to combine the supply which is against MRS and LNG into one group within the Merit Order and prorate as currently specified in the methodology.

In order to implement for both NTS Entry Capacity charges and NTS Exit Capacity charges in a reasonable timeframe, the implementation of the change to the Merit Order for use in calculating NTS Entry Capacity Reserve Prices and NTS Exit Capacity charges should subject a notice period.

Relevant Objectives

Implementation of this Modification Proposal would facilitate Relevant Charging Objectives a), aa), b) and c).

We believe that the obligation in section 9 of the Gas Act obligation to develop an economic and efficient system is also relevant and that this alternate better facilitates delivers this obligation.

Implementation

No implementation timescales are suggested at this time. The proposers will discuss this through the workgroups.

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

This does not affect any other industry change.

2 Why Change?

The Transportation Model calculates the Entry and Exit Capacity reserve prices. Within the Transportation model there is a specific Merit Order to scale the supplies to meet demand. For the Transportation Model to run the supplies must equal the demand. This Merit Order should reflect supply utilisation and the merit order to use supply types is specified within TPD UNC Section Y – Section 2.5.1(c).

The Merit Order used within the Transportation Model was implemented as part of GCM 16 which was implemented in 2009. At the time the Merit Order which is currently specified within Section Y and the Transportation Model reflected the supply utilisation.

The current Merit Order within the UNC and Transportation Model is specified as below and the adjustment shall be carried out by reducing supplies in the following order to the point at which supplies equal the forecast demand:

- (i) short range Storage Facilities;
- (ii) mid range Storage Facilities;
- (iii) LNG Importation Facilities;
- (iv) long range Storage Facilities;
- (v) pipeline interconnectors; and
- (vi) beach terminals.

In recent years the utilisation of supply on a highest demand day data based on the percentage of supplies has changed. There has been an increase in MRS and a decrease in LNG utilised over recent years.

Financial Year	LNG	MRS
2010/2011	17.36%	3.77%
2011/2012	18.70%	12.12%
2012/2013	7.70%	16.79%
2013/2014	2.47%	13.24%

The data above shows a change in the amount of LNG and MRS supply used on the cold day in the applicable year. With the reductions in LNG over these years being representative of the general trend in use of LNG as a supply source, the value for 2013/14 may be lower than it would otherwise have been due to additional global factors at the time such as the use of LNG in Japan.

LNG and MRS have both been used during cold days over the past 4 years therefore an amendment to the Merit Order within the Transportation Model is proposed.

The utilisation at entry points has changed since GCM16 was implemented in 2009 and it is recognised that this could change in the future and therefore the merit order will need to continue to be reviewed as and when it may be required to be consistent with what happens on the network.

The proposed change will have a material effect on NTS exit capacity charges in some LDZs including Wales South, South West and South East and may have a material effect on the viability of NTS directly connected sites as well as on the cash flows of Gas Distribution Networks. For this reason the implications of the implementation of this Modification Proposal need to be well understood before they are made.

Transparency

In 2007/8 Gas Distribution Networks (GDNs) introduced the Mod 186 report which is presented to members of the Distribution Charging Methodology Forum (DCMF) on a quarterly basis: Jan/Apr/July/Oct. The report provides Shippers, principally, with a detailed analysis of the Allowed Revenues and potential changes to transportation prices for the current year and the next four years, separately identifying Distribution Exit Capacity and Non-Exit Capacity revenues. The report is designed to give Shippers an indication of how transportation prices may move during the four years following the current year.

This does not exist for NTS, although we recognise that NTS are considering introducing something similar. The material impact of the proposed changes in this Modification Proposal highlights the need for a similar process for NTS pricing and we believe that they should be developed in conjunction with and not separate to any change in the Merit Order.

NTS Exit Charging Regime & RIIO

From October 2012, as a result of exit reform, Gas Distribution Networks are now charged by NTS for NTS exit capacity. Previously this charge was paid by Shippers directly. Gas Distribution Networks are now exposed to changes in NTS charges.

The new RIIO GD1 Special Condition 1D of the Gas Distribution Licence states

“The difference between exit capacity charges from NTS and the exit capacity allowance (‘true up’) is adjusted in formula year T+2”

This means that if charges from NTS exceeded the Exit Capacity allowance for 2015/16 the difference cannot be recovered from Shippers connected to the Gas Distribution Network until 2017/18. Sites directly connected to the NTS would incur the revised NTS exit capacity charges immediately.

Charging Impact of Modification 517

For WWU the increase in costs resulting from Modification Proposal 0517, compared to the latest indicative Exit Capacity prices from October 2015, would be approximately £1.0m each month from October 2015.

In the formula year 2015/16 this would amount to an increase in charges over a 6 month period from the NTS of £6m. (£23m to £30m).

Comparing the latest indicative Exit Capacity prices from October 2016 to similar Exit Capacity prices under Modification Proposal 0517, the costs for the formula year 2016/17 would increase by £12m (from £23m to £35m).

In terms of charges to Shippers, if we assume similar Exit Capacity prices were used from October 2016 the price adjustment to WWU Exit Capacity Charges in 2017/18 and 2018/19, following the two year lag, would be +41% and +17% respectively. This compares to price adjustments in 2017/18 and 2018/19 of 4% and 11% using the latest indicative Exit Capacity prices from NTS which reflect the current Merit Order

If Exit Capacity allowances were adjusted to match the increased costs from 2017/18 then the corresponding price adjustments to WWU Exit Capacity Charges would be 15% in 2017/18; and 16% in 2018/19.

The much larger increase in 2017/18 for 0517 compared to 0517A is due to the effect of the ‘true up’ arising from the difference between the Exit Capacity allowances and costs in 2015/16 feeding through.

RIIO GD1 requirements & Principles

Ofgem’s “Decision in relation to measures to mitigate network charging volatility arising from the price control settlement” included the following statements:

“We also noted in our consultation that stability of charges would also help improve the efficiency of energy markets by reducing administration costs, eg the costs of suppliers notifying customers of changes in charges.” (Paragraph 1.11)

“The majority of respondents agreed that improving the predictability of charges should be the primary objective, however some also noted the importance of stable charges particularly for those consumers on non fixed price contracts, where any change in network charges may be passed on to them by their supplier.” (Paragraph 1.12)

<https://www.ofgem.gov.uk/publications-and-updates/decision-measures-mitigate-network-charging-volatility-arising-price-control-settlement>

Gas Distribution Networks and NTS both operate under the same Gas Act obligation to develop “an economic and efficient network”. Therefore the conclusion that stability of charges would help improve the efficiency of energy markets also applies to the NTS and the conclusions of Ofgem’s decision document should also apply to NTS charges

We believe that as Modification Proposal 0517 would result in material rebalancing of NTS charges (but not to the total NTS revenue) it should follow a similar time frame to that which applies to changes to Gas Distribution Networks Exit Capacity allowances. This will facilitate relevant objective (b) “reflecting changes in the transportation business” to a greater extent than Modification Proposal 0517 as it also reflects changes in approaches to charging in transportation businesses.

We accept that the NTS charges need to be cost reflective but this change has material impacts on both Shippers and Gas Distribution Networks, therefore the impact of this proposed change needs to be understood and delaying the implementation date and the introduction of a NTS “Mod 186” process will enable these steps to be undertaken. Although this means that NTS charges will be less cost reflective in the period up to October 2017 we believe that this consideration is outweighed by the effects on competition and on the stability of Gas Distribution Network charges in the affected LDZs. This competition issue has arisen owing to a combination of Exit Reform and the changes to Gas Distribution Network charging described above.

If Gas Distribution Networks wish to apply to Ofgem for an increase in their NTS Exit Capacity allowances they have to apply by 31 July 2015 in order to be able collect the additional revenue during the 2017/18 formula year onwards. This means that the information that they require to support the application needs to be available in advance of 31 July 2015 to allow sufficient time to prepare the application. This in turn means that the proposed NTS “Mod 186” process needs to be completed by April 2015 and the implementation of the change to the Transportation Model needs to be delayed so that prices do not change until 1st October 2017. We believe that this will both avoid adverse impact on Gas Distribution Networks and ensure that there is no adverse effect on competition between sites that are directly connected to the NTS and those that are connected to Gas Distribution Networks.

3 Solution

It is proposed to amend UNC TPD Section Y – Section 2.5.1 (c) to ensure that the Merit Order specified in the UNC is reflective of how supplies are currently utilised.

This proposal seeks to amend the Merit Order to combine MRS and LNG into one group within the Merit Order and prorate the supplies (i.e. use an equal % of each group to achieve the supply and demand match required) when matching demand in accordance with the process specified in the methodology.

It is proposed that the NTS pricing methodology in Section Y regarding the merit order is effective from a future date to allow the GDN Exit Cost Allowances to be amended. Given the process for Gas Distribution Networks to apply for a change to NTS Exit Capacity allowances, the resulting changes to the model and resultant indicative charges need to be published by NTS by 30 June in any given year.

The NTS Exit Capacity charges would become effective 27 months after the relevant 30 June and the NTS Entry Capacity charges would become effective 20 months after the relevant 30 June. This would not change the timescales for setting the final NTS Entry Capacity reserve prices nor final NTS Exit Capacity charges and only informs the merit order to be used.

The published indicative prices would use the current model up to the end of the notice period and then the changed model would be used. The NTS Exit Capacity charges would be implemented on 01 October, 27 months after the relevant 30 June. To be consistent between Exit and Entry the corresponding Entry Capacity charges would be implemented on 01 April, 21 months after the relevant 30 June. This would mean that both the Entry and Exit Capacity charges resulting from a change in the Transportation Model were implement in the same Formula year (April to March).

The table below gives an example for a model changed and indicative charges published by 30 June 2015

Prices published	Model used
NTS exit capacity charges for 01 Oct 2015	Current model
NTS entry capacity charges for 01 Apr 2016	Current model
NTS exit capacity charges for 01 Oct 2016	Current model
NTS entry capacity charges for 01 Apr 2017 and thereafter	Changed model
NTS exit capacity charges for 01 Apr 2017 and thereafter	Changed model

User Pays	
Classification of the modification as User Pays, or not, and the justification for such classification.	No User Pays service would be created or amended by implementation of this modification and it is not, therefore, classified as a User Pays Modification.
Identification of Users of the service, the proposed split of the recovery between Gas Transporters and Users for User Pays costs and the justification for such view.	Not applicable
Proposed charge(s) for application of User Pays charges to Shippers.	Not applicable
Proposed charge for inclusion in the Agency	Not applicable

Charging Statement (ACS) – to be completed upon receipt of a cost estimate from Xoserve.

4 Relevant Objectives

Impact of the modification on the Relevant Charging Methodology Objectives:	
Relevant Objective	Identified impact
a) Save in so far as paragraphs (aa) or (d) apply, that compliance with the charging methodology results in charges which reflect the costs incurred by the licensee in its transportation business;	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;	Positive
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.	None

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;

and;

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;

The implementation of this modification would align to the current supply source utilisation and ensure that the Entry and Exit reserve prices are reflective and consistent with what happens on the network.

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

This modification will take into account developments that have taken place since the current Merit Order was introduced as part of GCM16 in 2009. This modification seeks to update UNC TPD Section Y to amend the Merit Order to reflect the current supply utilisation.

This modification will also reflect developments in thinking about charging predictability and volatility. Not

implementing any changes in charges resulting from the change to the Transportation Model until after the notice period reflects Ofgem's decisions on the volatility and predictability of network charges.

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;

This Modification Proposal will result in changes to NTS exit capacity charges being reflected in prices charged to sites directly connected to the NTS at the same time as the charges are reflected in prices charged to sites connected to Gas Distribution Networks.

This modification does not conflict with:

- (i) paragraphs 8, 9, 10 and 11 of Standard Condition 4B of the Transporter's Licence; or paragraphs 2, 2A and 3 of Standard Special Condition A4 of the Transporter's Licence;

Modification 0517 Case for Change

Introduction

National Grid NTS has an obligation, amongst the suite of Licence and code obligations and objectives, to keep the Charging Methodology under review. The charging methodology is in Section Y of the UNC and with respect to setting entry capacity reserve prices and exit capacity charges, a key element is the Transportation Model, which comprises the Transport Model (ie the model that determines the initial Long Run Marginal Costs) and the Tariff Model (ie that converts LRMCs into prices). The Transportation Model optimises the use of the NTS in matching supplies to 1 in 20 Peak Day Demand ('Demand') in order to calculate location based capacity charges that reflect where gas enters and exits the NTS and how much of the system the gas is deemed to use. Demand values are taken from the Ten Year Statement and, in order for the model to run supplies must equal demand. Typically total supply exceeds demand. As such supplies need to be reduced to ensure that demand is met and to do this, there is a merit order of supply matching that was put in place to reflect previous and expected patterns of supply utilisation on the NTS. This has not been reviewed for many years and, if the underlying principle of the merit order used in section Y is to reflect a more realistic use of supplies, then there is a rationale to say that it should be updated.

National Grid has proposed the Merit order of supplies used in the Transportation Model and the methodology behind it should be reviewed to bring it more in line with trends seen over recent years. It is not proposed to fundamentally revise the merit order principles however the merit order will be kept under review to ensure that any changes in supplies on the NTS can be discussed with industry and any potential modifications raised.

At the NTS Charging Methodology Forum some participants believed that the supplies used in the merit order should be closer to the supplies that have been observed in recent years. There was some discussion about whether it should be based on forecast or historical information. Other participants believed that recent history may not reflect the supply pattern that would be seen should there be a 1 in 20 Peak Day. The proposal is based on historical trends as the use of these trends can be used to show how the use of the different supply sources have been utilised in meeting demand on the NTS.

Drivers behind the change

National Grid NTS has an obligation, amongst the suite of Licence and code obligations and objectives, to keep the Charging Methodology under review and to have a cost reflective set of charges. As the review of the supplies in recent years show usage different to that in the existing merit order it is timely that

consideration should be given to updating the merit order of supplies such that they more closely represent how supply sources are used on the NTS in meeting demand.

Updating the merit order, as proposed in UNC Modification 517, within the charging methodology at the earliest opportunity would result in the merit order being more reflective of supply patterns on the NTS. This would also result in applicable capacity charges in-keeping with the supply flow patterns.

This review retains the existing supply groupings as per UNC Section Y. Without a change to bring the merit order to be up to date with supply patterns the scenario where those who currently have lower prices than they would be under a change to update the merit order would continue until such time as a modification to the supply matching merit order was implemented. The reverse would be the case for those whose charges are higher than they would otherwise be. National Grid also has an obligation to minimise cross subsidies through the charging framework. To update the merit order where there is evidence to support the supplies to be used and to update in a reasonable timeframe would reduce the cross subsidies between these two groups.

Evidence

See Appendix xx

Evidence is as per the data / charts provided to Workgroup for 517 – link below

<http://www.gasgovernance.co.uk/0517/151214>

<http://www.gasgovernance.co.uk/0517/251114>

Impact on prices

The detailed Changes to Entry and Exit prices and the sensitivities of the changes as a result of the proposal for Mod 517 can be seen in the evidence section above.

The geographical Impact of the proposal in UNC Mod 517 can also be seen in the evidence section above.

This change will result in Exit and Entry capacity charges increasing and/or decreasing depending on the size of supply flows at each Entry point assumed in the Merit Order. This change would impact all NTS customers at the same time, however it has been noted by a Distribution Network (DN) that, where the charges exceed the NTS Exit Capacity cost allowance in their DN Licence, then there will be a delay in the ability to reflect such an increase in their charges to DN connected customers. Conversely should the NTS Exit Capacity charge be less than the allowance then there will also be a delay in the DN's ability to pass on the reduction. 0517 does not address this.

For changes to charges National Grid has, as its obligations with respect to notice periods, to provide 150 days' notice for indicative changes charges and two months' notice for changes to actual charges. This is also the same for Distribution charges. As part of exit reform, with regard to exit capacity charges National Grid now provides 150 days' notice for final charges i.e. around the beginning of May each year ahead of implementation from the following October. This was to allow final charges to be known ahead of the July window.

The DNs have a specific arrangement when it comes to being able to pass on changes to Exit capacity charges from the National Grid NTS. Under RIIO there is an allowance and should the charges be less or more than this allowance, then there is reconciliation in y+2.

5 Implementation

The Workgroup has not proposed a timescale for implementation of this modification, but would suggest that it is implemented at the earliest practical opportunity.

No implementation costs are anticipated.

Question for consultation – ask for respondents views on implementation timescales?

6 Impacts

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

No other industry change is impacted.

7 Legal Text

Text Commentary

In support of the legal text provided, the legal representative shall provide a plain English explanatory note setting out the approach taken to converting the Solution into legal text, illustrating how the legal text delivers the intent of the Solution.

Insert text here

Text

Marked-up text needs to be confirmed

The following Text has been prepared by National Grid NTS, and no issues were raised by the Workgroup regarding its content.

TPD UNC Section Y – Section 2.5.1(c).

2.5.1 The Transport Model

Model Input Data

- (a) The Transport Model calculates the marginal costs of investment required in the National Transmission System as a consequence of an increase in demand for gas or supply of gas at each System Point or node on the National Transmission System. Such calculation is based upon analysis of peak conditions on the National Transmission System and the costs of investment which are expressed in £/GWhkm. Where there is an increase in demand for gas or supply of gas at a System Point the marginal changes in flow distances (measured in GWhkm) for a small energy injection to the system (measured in GWh) shall be estimated initially by reference to the increases or decreases in units of kilometres of the National Transmission System.
- (b) The Transport Model requires a set of inputs which are consistent with the costs incurred by National Grid NTS in making NTS Exit (Flat) Capacity available on the National Transmission System:
 - (i) Nodal supply and demand data (GWh)
 - (A) Demand data shall be derived in relation to each NTS Exit Point as the lesser of:

- (1) the National Grid NTS forecast undiversified 1-in-20 peak day demand at the relevant NTS Exit Point, provided that:
 - (aa) for any NTS Connected Offtake System which is a Storage Facility or a pipeline interconnector and which has a physical entry capability, demand at the relevant NTS Connected System Exit Point shall be deemed to be zero;
 - (bb) for NTS/LDZ Offtakes, the National Grid NTS forecast undiversified 1-in-20 peak day demand in the relevant LDZ shall be prorated between the relevant NTS/LDZ Offtakes on the basis of the amount of NTS Exit (Flat) Capacity registered at each of the relevant NTS/LDZ Offtakes;

For the purposes of this paragraph, “National Grid NTS forecast undiversified 1-in-20 peak day demand” means the 1-in-20 peak day demand for the National Transmission System that is derived from the summation of the forecast peak demands and load duration curves for each NTS Supply Point, NTS CSEP and NTS/LDZ Offtake; and

- (2) the aggregate of the Baseline NTS Exit (Flat) Capacity and incremental NTS Exit (Flat) Capacity in respect of the relevant NTS Exit Point,

provided that paragraph (2) above shall be ignored for the purposes of setting or determining any indicative NTS Exit (Flat) Capacity Charges;

- (B) Aggregate System Entry Point supplies
 - (ii) Transmission pipelines between each node (measured in km) and calculated by reference to:
 - (1) Existing pipelines
 - (2) New pipelines expected to be operational on or before the start of the Gas Year under analysis
 - (iii) Identification of a reference node.

Model Inputs

- (c) The nodal supply data for the Transport Model shall be derived from the supply/demand data set out in the most recent Ten Year Statement³ for each Gas Year for which prices are being determined. The aggregate supply flow shall be adjusted to ensure that the values for supply and demand are equal. This adjustment shall be carried out by reducing supplies in the following order to the point at which supplies equal the forecast demand:
 - (i) short range Storage Facilities;
 - (ii) mid range Storage Facilities and LNG Importation Facilities;
 - (iii) long range Storage Facilities;
 - (iv) pipeline interconnectors; and
 - (v) beach terminals.

The supply figures for Individual System Entry Points at Storage Facilities and/or pipeline interconnectors may be set at a level that is less than or equal to the expected entry point capability.

- (d) Nodal demand data for the Transport Model shall be derived from a range of different data sources as more particularly described in paragraph 2.5.1(b)(i).

³ See Appendix C for definitions.

- (e) National Transmission System network data for the charging year will be based on data taken from National Grid NTS's most recent Ten Year Statement.

8 Recommendation

The Workgroup invites the Panel to:

- AGREE that this modification should be submitted for consultation.