

## Stage 01: Modification

# 0517B:

## Review of the Supply Matching Merit Order in Setting Capacity Charges, Rolling Average to Reduce Volatility in Annual Charges.

The Merit Order within the Transportation Model used in calculating capacity charges was implemented as part of GCM16 in 2009. At the time the Merit Order reflected the utilisation of supply. The Merit Order should be kept under review and updated if required.

In recent years there has been a change in the utilisation of supply around the Liquefied Natural Gas (LNG) and Mid Range Storage (MRS). There has been an increase in the amount of MRS utilised in recent years and a decrease in the amount of LNG that is being utilised. Though both these sources have been utilised on any cold day in the past 4 years, the change in utilisation should be reflected in the Merit Order in TPD UNC Section Y.

Apparent small changes in inputs to the Transportation Model can result in large changes in charges. This volatility in charges is not helpful for business planning and making investment decisions. To avoid this volatility it is proposed to calculate charges using the proposed merit order, then calculate the rolling average of three years of charges to set the charges for the current charging year.



The Proposer recommends that this modification should be:

- assessed by a Workgroup



Low Impact: National Grid Transmission, Gas Distribution Network Operators, Shippers and Suppliers

At what stage is this document in the process?



# Contents

- 1 Summary
- 2 Why Change?
- 3 Solution
- 4 Relevant Objectives
- 5 Implementation
- 6 Legal Text
- 7 Recommendation

- 3
- 4
- 5
- 7
- 8
- 8
- 8


<b>Any questions?</b>
Contact: <b>Code Administrator</b>
 <a href="mailto:enquiries@gasgovernance.co.uk">enquiries@gasgovernance.co.uk</a>
 <b>0121 288 2107</b>
Proposer: <b>SSE</b>
 <a href="mailto:Jeff.Chandler@SSE.com">Jeff.Chandler@SSE.com</a>
 <b>01738 516755</b>

## About this document:

This modification was presented by the Proposer to the Panel on 15 January 2015.

The Panel will consider the Proposer's recommendation and agree whether this modification should be:

- referred to a Workgroup for assessment.

# 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.

Then to reduce large year on year changes to charges on an enduring basis, it is proposed to use the rolling average of three most recent years of charges, where available, to set charges for the current charging year.

## Relevant Objectives

Implementation of this Modification Proposal would facilitate the following Relevant Objectives:

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

## Implementation

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

## Does this modification affect the Nexus delivery, if so, how?

This does not affect the Nexus delivery.

## 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 we are proposing an amendment to the Merit Order within the Transportation Model.

The utilisation at entry points has changed since GCM16 was implemented in 2009 and we recognise 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.

Apparent small changes to inputs to the Transportation Model can result in large changes to charges. The changes proposed by Mod 517 and mod 517A would give rise to changes to charges of thousands of percent for some exit and entry points. This volatility in charges is not helpful for business planning and making investment decisions. To reduce this volatility it is proposed to calculate the rolling average of three years of charges to set charges for the current charging year. By introducing more stability in charges shippers and suppliers will be better able to predict costs and this will better facilitate competition. In addition, because the proposal is for a permanent change, it has the benefit of reducing volatility of charges on an on-going basis.

### 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.

Mods 517 and 517A impact charges for both entry and exit capacity. It is proposed that 517B applies to both entry and exit capacity too. It might be unduly discriminatory to apply 517B to only exit or entry charges, although there is a precedent of different calculation methodologies for entry and exit prices in the Transportation Model. For clarity, the averaging process is to apply to entry capacity reserve prices and exit capacity prices only and not to commodity charges.

To reduce volatility in charges it is proposed to calculate and use the rolling average of three years of charges to set charges for the current charging year. For clarity, the methodology introduced by mod 517 will be used to calculate the annual tariffs in this alternative. By way of example, to set the actual charges for 2015/16; the average of the historical charges from 2013/14, 2014/15 and those for 2015/16, as calculated by the charging methodology, will be added together and then divided by three to create an arithmetic average. This calculation will be carried out on a rolling average basis as:

$$\text{Applicable Charge year } Y = (\text{model output year } Y + \text{model output year } Y-1 + \text{model output year } Y-2)/3$$

For clarity, the model output year includes all adjustments made to enable recovery of allowed revenue.

#### Calculation of new Exit and Entry reserve point charges where historical charging data is limited.

Where there are less than two years of historical charging data available to calculate a rolling average, then the following formulae will be used to calculate the applicable charge year. This approach will retain the locational cost reflectivity of either the new exit or entry point. Where only 1 year of historical data exists, the following formula will be used:

$$\text{Applicable Charge year } Y = (\text{model output year } Y + \text{model output year } Y-1)/2$$

Where no historical data exists, the following formula will be used:

$$\text{Applicable Charge year } Y = \text{model output year } Y$$

### Calculation of indicative User Commitment costs for exit

No change is proposed to the User Commitment for new exit points; it will be based on the prevailing methodology. To calculate the exit price on which to base the User Commitment, it is proposed to use the rolling average of up to three years of exit prices. The charges of the individual years would be calculated using the charging methodology, added together and then divided by three to create an arithmetic average. This calculation will be carried out on a rolling average basis as:

$$\text{Applicable Charge year } \gamma = (\text{model output year } \gamma + \text{model output year } \gamma-1 + \text{model output year } \gamma-2)/3$$

Where the model output year value includes adjustment to meet allowed revenue. Where there are less than two years of historical charging data available to calculate a rolling average, then the following formulae will be used to calculate the applicable charge year.

Where only 1 year of historical data exists, the following formula will be used:

$$\text{Applicable Charge year } \gamma = (\text{model output year } \gamma + \text{model output year } \gamma-1)/2$$

Where no historical data exists, the following formula will be used:

$$\text{Applicable Charge year } \gamma = \text{model output year } \gamma$$

### Calculation of incremental Entry Price Steps

To calculate Incremental Entry Price Steps, it is proposed to use the rolling average of up to three years of QSEC step prices for the year the average prices are applicable for. The charges of the individual years would be calculated using the charging methodology, added together and then divided by three to create an arithmetic average for each of the incremental price steps. This calculation will be carried out on a rolling average as:

$$\text{Applicable price step year } Y = (\text{Price step charge year } Y + \text{Price step charge year } Y-1 + \text{Price step charge year } Y-2)/3$$

The approach to calculate incremental price steps would use the following methodology when considering sites where three years of prices are not available.

Where only 1 year of historical data exists, the following formula will be used:

$$\text{Applicable Charge price step year } \gamma = (\text{model output Price step charge year } \gamma + \text{model output Price step charge year } \gamma-1)/2$$

Where no historical data exists, the following formula will be used:

$$\text{Applicable Charge price step year } \gamma = \text{model output Price step charge year } \gamma$$

#### 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 Charging Statement (ACS) – to be completed upon receipt of a cost estimate from Xoserve.
Not applicable

## 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;

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.

- aa) That, in so far as prices in respect of transportation arrangements are established by auction, either:  
(iii) no reserve price is applied, or  
(iv) 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 does not conflict with:

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

- 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 will introduce more stability in charges and as a result shippers and suppliers will be better able to predict costs and this will better facilitate competition. Volatility in charges is not helpful for business planning and making investment decisions. It makes budgeting and; choosing when to give a User Commitment signal for exit capacity and contracting with end customers all the more challenging than sheould be the case. Volatile charges ultimately have a negative impact on competition because they create uncertainty and discourage investment by creating a barrier to entry.

## 5 Implementation

No implementation timescales are suggested at this time. SSE will discuss this through the Workgroups.

No implementation costs are anticipated.

## 6 Legal Text

Much of the legal text for 0517 can be re-used but further text will be required to implement the additional provisions of 0517B with regard to calculation of the rolling average and definitions.

## 7 Recommendation

The Proposer invites the Panel to:

- Progress to Workgroup assessment.