nationalgrid

CONSULTATION DOCUMENT

Modification Proposals to the Gas Transmission Transportation Charging Methodology

NTS GCM 17:

QSEC New ASEP NTS Entry Capacity P0 Pricing

17th April 2009

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1 Executive Summary

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

This document sets out for consultation a proposal for amending the Gas Transmission Transportation Charging Methodology (the "Charging Methodology") in respect of the setting of the NTS Entry Capacity reserve price for Obligated NTS Entry Capacity at new Aggregated System Entry Points (ASEPs).

Under the prevailing Charging Methodology, the Obligated NTS Entry Capacity reserve price for a new ASEP is zero and an ASEP is treated as new for Quarterly System Entry Capacity (QSEC) auctions until obligated entry capacity is released. The Obligated NTS Entry Capacity reserve price is the P0 price in the QSEC price schedule with price P1 up to P20 relating to incremental capacity. The P0 price for all existing ASEPs is the annuitised long run marginal cost (LRMC) generated from the Transportation Model with the relevant ASEP flowing at the obligated level.

While the obligated entry capacity level is zero at new entry points, capacity can actually be released at the zero P0 price due to the UNC quarterly entry capacity allocation rules and there is evidence that this has occurred. Capacity can be released at the P0 price when the economic test has been passed through bids at earlier quarters. The NPV of the bids required to pass the economic test is 50% of the project value. This suggests that later capacity sales in other auctions will cover the other 50%. This is unlikely to be the case if significant capacity has already been released at a zero price and this could lead to a potential cross subsidy.

National Grid proposes through this consultation document (GCM 17) that for new entry points, the P0 price within the QSEC price stack should be calculated consistently with the P0 price for all existing entry points. The P0 price for existing entry points is the transportation model derived annuitised long run marginal cost for the relevant entry point with that point flowing at the obligated level.

This proposal, GCM17, would ensure that the P0 price was set on a consistent basis for new and existing ASEPs and should remove a potential cross subsidy.

Implementation

It is proposed that these arrangements are implemented with effect from 1st July 2009 and hence in relation to any QSEC auction held two months after that date.

The closing date for submission of your responses to this consultation is **Friday 15th May 2009**

2 Introduction

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

2.2 This document sets out for consultation a proposal for amending the Gas Transmission Transportation Charging Methodology (the "Charging Methodology") in respect of the setting of the NTS Entry Capacity reserve price for Obligated NTS Entry Capacity at new Aggregated System Entry Points (ASEPs).

2.3 Under the prevailing Charging Methodology, the NTS Entry Capacity reserve price for a new ASEP is zero and an ASEP is treated as new for Quarterly System Entry Capacity (QSEC) auctions until obligated entry capacity is released.

2.4 The Obligated NTS Entry Capacity reserve price is the P0 price in the QSEC price schedule with price P1 up to P20 relating to incremental capacity. The P0 price for all other existing ASEPs is the annuitised long run marginal cost (LRMC) generated from the Transportation Model with the relevant ASEP flowing at the obligated level.

3 Background

3.1 NTS Entry Capacity is presently allocated by means of five main auction mechanisms.

- Quarterly (firm) System Entry Capacity (QSEC)
- Monthly (firm) System Entry Capacity (MSEC)
- Rolling Monthly (firm) Transfer and Trade System Entry Capacity (RMTTSEC)
- Daily (firm) System Entry Capacity (DSEC)
- Daily Interruptible System Entry Capacity (DISEC)

3.2 Under its NTS SO incentive schemes, National Grid is obliged to make available for sale in the Entry Capacity "Long Term" auctions, Quarterly System Entry Capacity (QSEC) calculated in accordance with Special Condition C8D Part C Paragraph 9 of National Grid's Licence.

3.3 QSEC can be obtained in respect of each of Capacity Year + 2 to Capacity Year + 16 inclusive (where 'Capacity Year + n' is a reference to the Capacity Year commencing on the nth anniversary of the first day of the Capacity Year in which the applications are invited to be made).

3.4 The methodology for determination of the obligated capacity price and incremental price steps is set out in both National Grid's Charging Methodology statement and Incremental Entry Capacity Release (IECR) methodology statement. As part of the 2009 IECR review it will be proposed that price determination be removed and left solely in the Charging Methodology

The Transport Model for Determination of NTS Entry Capacity Prices

3.5 The transport model calculates the marginal costs of investment in the transmission system that would be required as a consequence of an increase in demand or supply at each connection point or node on the transmission system.

3.6 The measure of the investment costs is in terms of £/GWhkm, a concept used to calculate marginal costs, hence marginal changes in flow distances based on increases at entry and exit points are estimated initially in terms of increases or decreases in units of kilometres of the transmission system for a small energy injection to the system.

3.7 The expansion constant, expressed in £/GWhkm, represents the capital cost of the transmission infrastructure investment required to transport 1 GWh over 1 km. Its magnitude is derived from the projected cost of an 85bar pipeline and compression for a 100km NTS network section. The 100km distance was selected as this represents the typical compressor spacing on the NTS.

The Tariff Model for Determination of NTS Entry Capacity Prices

3.8 NTS Entry Capacity reserve prices represent purely locational prices derived from the transport model to reflect the costs of capital investment in, and the maintenance and operation of, a transmission system to provide bulk transportation of gas from the different entry locations.

3.9 The Entry Capacity reserves prices are not adjusted to collect allowed revenue. The issue of residual revenue recovery is addressed via the application of the TO commodity charge.

3.10 Prices for each Gas Year are set on the basis of the relevant year's 1-in-20 peak base case supply and demand data and network model, but with adjustments to the supply flows to reflect the capacity level in question (i.e. the obligated entry capacity level when setting the obligated entry reserve price). Demand flows remain unadjusted.

3.11 The Nodal Marginal Distances, calculated from the Transport Model, are converted to capital costs by multiplying by the expansion constant, and annuitised using the anuitisation factor implied by the Licence (which means that the cost is spread evenly over the expected life of the asset taking into account the required rate of return). The final step converts the result from £/GWh/year to p/kWh/day by dividing by 365, multiplying by 100 and dividing by 10^6. Prices are adjusted to recognise the different calorific values of gas entering the system using ASEP specific calorific values.

3.12 The reserve prices are calculated such that they are collared at a minimum value of 0.0001 p/kWh/day.

3.13 Where an entry point has a zero baseline capacity level (as defined in the Licence), but where permanent obligated capacity has been sold at the entry point in previous auctions, the level of permanent obligated entry capacity released within the Gas Year in question is used as the obligated entry capacity level.

New Entry Points

3.14 For new NTS Entry Points where an entry point does not have an obligated baseline entry capacity level (defined by the Licence) and where no permanent obligated entry capacity has been released, the obligated entry capacity reserve price is set at zero.

3.15 Entry points are only treated as new for the purposes of long term (QSEC) auctions as incremental obligated capacity can only be released through these auctions.

3.16 Where permanent obligated capacity has been sold at an NTS Entry Point in previous auctions, the entry point is no longer treated as 'new' and is treated consistently with those entry points that have a Licence-defined obligated baseline capacity level (see above).

4 Discussion and Issues

Allocation Rules

4.1 While the obligated entry capacity level is zero at new entry points, capacity can actually be released at the zero P0 price due to the UNC quarterly entry capacity allocation rules[1] and there is evidence that this has occurred.

4.2 Capacity can be released at the P0 price when the economic test has been passed through bids at earlier quarters.

4.3 The NPV of the bids required to pass the economic test is 50% of the project value. This suggests that later capacity sales in other auctions will cover the other 50%. This is unlikely to be the case if significant capacity had already been released at a zero price and this could lead to a potential cross subsidy.

4.4 One solution could be to, change the allocation rules to prevent allocation at P0, however, this would only introduce more disparities between the treatment of new and existing ASEPS.

Connecting at a New versus an Existing ASEP

4.5 The prevailing charging arrangements might create a perverse incentive for a new entry project to not connect at an existing ASEP and to request a new ASEP be created due to potential benefits from a zero P0 price.

4.6 A new entry project connecting at a new ASEP close to an existing ASEP would have a very similar if not identical LRMC to the existing ASEP. If the P0 prices were calculated on the same basis for both new and existing ASEPs then these prices would be comparable.

The Transportation Model and New ASEPS

4.7 The Transportation Model can be used to calculate an LRMC at any flow level with the resulting LRMC representing the unit capital cost (£m/GWh) of providing additional capacity relative to the supply and demand scenario modelled.

4.8 The model will generate an LRMC for an entry point with zero flow and this LRMC will represent the unit cost of increasing the flow from zero.

4.9 The version of the Transportation Model presently made available to the industry already calculates entry price schedules based on LRMCs for all entry points at any obligated and incremental capacity level and hence no changes will be required.

4.10 Under the prevailing arrangements the P0 prices calculated by the model are ignored for new ASEPs and replaced with zero values for the published price schedules and invitation letters.

[1] UNC TPD B2.6 Allocation: Quarterly NTS Entry Capacity

Commodity Charge Issues

4.11 The allocation of entry capacity at a zero price may result in the costs of providing that capacity being met through the SO Commodity charge as the release of Incremental Obligated Entry Capacity results in increased SO allowed revenue for the first five years.

4.12 In later years, the allocation of entry capacity at a zero price may result in the costs of providing that capacity being met through the TO Entry Commodity charge once assets associated with the release of the capacity have been included in the TO regulated asset value.

4.13 A Shipper can calculate the approximate impact on the commodity charge of any entry capacity costs not recovered through capacity charges.

- Every £2M of incremental entry allowed revenue not recovered through entry capacity charges will result in a 0.0001 p/kWh increase in the SO Commodity charge over a 12 month period.
- Every £1M of incremental entry allowed revenue not recovered through entry capacity charges will result in a 0.0001 p/kWh increase in the TO Entry Commodity charge over a 12 month period.

5 National Grid's Proposal

5.1 National Grid proposes that:

- For new entry points, the P0 price within the QSEC price stack should be calculated consistently with the P0 price for all existing entry points.
    - The P0 price for existing entry points is the transportation model derived annuitised long run marginal cost for the relevant entry point with that point flowing at the obligated level.
- It is proposed that these arrangements are implemented with effect from 1st July 2009 and hence in relation to any QSEC auction held two months after that date.

6 Justification

Assessment against Licence Objectives

6.1 The National Grid Gas plc Gas Transporter Licence in respect of the NTS requires that proposed changes to the Charging Methodology shall achieve the relevant methodology objectives.

6.2 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.

6.3 National Grid believes that GCM17 would satisfy the relevant objectives as, it would remove a potential cross subsidy.

6.4 GCM17 should prevent cross subsidies between Users at different ASEPs and between entry and exit Users and hence should facilitate effective competition between gas shippers and between gas suppliers.

Assessment against EU Gas Regulations

6.5 EC Regulation 1775/2005 on conditions for access to the natural gas transmission networks (binding from 1 July 2006) 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.

6.6 National Grid believes that GCM17 is consistent with the principles listed above, specifically the amended methodology should;

- Reflect actual costs incurred for an efficient and structurally comparable network operator
- Be applied in a non-discriminatory manner
- Avoid cross-subsidies between network users
- Not distort trade across borders of different transmission systems.

7 Questions for Consultation

7.1 National Grid invites views on whether the proposed changes to our Gas Transmission Transportation Charging Methodology meet National Grid's relevant Licence objectives, specifically that:

- For new entry points, the P0 price within the QSEC price stack should be calculated consistently with the P0 price for all existing entry points.
    - The P0 price for existing entry points is the transportation model derived annuitised long run marginal cost for the relevant entry point with that point flowing at the obligated level.
- It is proposed that these arrangements are implemented with effect from 1st July 2009 and hence in relation to any QSEC auction held two months after that date.

The closing date for submission of your responses is **Friday 15th May 2008**. Your response should be e-mailed to:

box.transmissioncapacityandcharging@uk.ngrid.com

or alternatively sent by post to

Eddie Blackburn, Regulatory Frameworks, National Grid, National Grid House, Gallows Hill, Warwick, CV34 6DA.

If you wish to discuss any matter relating to this charging methodology consultation then please call Eddie Blackburn☎ 01926 656022 or Debra Hawkin☎ 01926 656317.

Responses to this consultation will be incorporated within National Grid's conclusions report. If you wish your response to be treated as confidential then please mark it clearly to that effect.