CONSULTATION DOCUMENT

Modification Proposals to the Gas Transmission Transportation Charging Methodology

NTS GCM 06:

Further Revision to Obligated NTS Entry Capacity Reserve Price Determination

8th May 2007

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Executive Summary

This document sets out for consultation National Grid NTS's proposal for further revising the Gas Transmission Transportation Charging Methodology (the "Charging Methodology") in respect of the setting of Obligated NTS Entry Capacity[1] reserve prices for all capacity released from 1st October 2007. This covers all NTS Entry Capacity auctions starting from the September 2007 QSEC auction.

National Grid NTS raised Pricing Consultation NTS GCM 01 on 2nd November 2006 with the consultation period ending on 30th November 2006. The consultation led to the consultation conclusions report published on 25th January 2007 which proposed the introduction of the Transportation Model for the purposes of setting NTS Exit prices and NTS Obligated NTS Entry reserve prices. The final proposal was "option 2b" which involved the calculation of NTS entry reserve prices by modelling entry flows at the obligated level within the Transportation model. The calculation of NTS incremental entry step prices from the Transportation model will be proposed as part of the Incremental Entry Capacity Release (IECR) methodology statement consultation.

Ofgem Decision

Ofgem's decision document, issued after an Impact Assessment had been carried out, stated; *"In summary, Ofgem considers that the Proposal better facilitates the achievement of the relevant charging methodology objectives than the current methodology, however we consider that it would be in the interests of consumers to include spare capacity in the model, as described by option 2a of NGG's consultation document. This would improve cost reflectiveness and better ensure the economic and efficient use of network assets. It would reduce the risk of underutilised assets and inefficient investment elsewhere on the network. This is a significant issue that Ofgem would urge NGG to consider in the immediate future through further modification proposals to the charging methodology. It may be that there are better solutions available which NGG can consider over the longer term, through its duty to review the suitability of the Methodology for achieving the relevant objectives."*

The revised arrangements under GCM01 (Option 2b) are as follows;

- Obligated NTS Entry Capacity reserve prices are generated from separate entry point specific analysis where the obligated level is different to the Base Case flow modelled
- The Base Case scenario involves adjusting some supplies down in order to match the 1 in 20 forecast demand where there is a supply surplus.
- The entry point specific analysis involves adjusting the modelled entry point flow to the obligated level and adjusting the least beneficial entry point or points relative to the entry point being considered in order to maintain the supply and demand balance.
- All entry points are expected to be analysed separately.

This Consultation Paper (GCM06) seeks views on a modification to the NTS Capacity Price setting methodology (Option 2a from the original GCM01 consultation paper), as summarised below:-

- Obligated NTS Entry Capacity reserve prices are generated from separate entry point specific analysis where the maximum forecast Base Case level

[1] Obligated NTS Entry Capacity has previously been referred to as Baseline NTS Entry Capacity within the Charging Methodology.

(capped at the Obligated NTS Entry Capacity level) is different to the Base Case flow modelled

- The Base Case scenario involves adjusting some supplies down in order to match the 1 in 20 forecast demand when there is a supply surplus.
- The entry point specific analysis involves adjusting the modelled entry point flow to the maximum forecast Base Case level (capped at the Obligated NTS Entry Capacity level) and adjusting the least beneficial entry point or points relative to the entry point being considered in order to maintain the supply and demand balance.
- The entry point specific analysis will only apply to those entry points that have been scaled back to achieve a supply and demand balance or where Base Case flows are in excess of the obligated capacity level. The entry points analysed separately are expected to be storage points, interconnectors and LNG importation facilities where the maximum flow for the purposes of charging would be based on the facility maximum deliverability capped at the obligated capacity level.

One of the key considerations in the determination of Long Run Marginal Costs (LRMCs) for the setting of entry capacity reserve prices is the treatment of spare capacity. While the Transportation model does not explicitly include spare transmission capacity, under this proposal (GCM06 ~ GCM01 Option 2a) spare capacity due to declining terminals is catered for by using flow forecasts, capped at the obligated firm capacity level. This will produce lower prices compared to the GCM01 approach where forecast maximum flows are less than the obligated capacity levels and hence when spare capacity could be said to be available.

Pricing based on forecast Base Case flows will ensure that where entry terminal flows are forecast to decline, the resulting prices will also decline hence creating an incentive to utilise any spare capacity released as a result of declining flows.

If spare capacity is not appropriately accommodated in prices, resulting in higher capacity charges, than would otherwise be the case, it could discourage the use of currently unutilised NTS investments and, in the extreme, lead to asset stranding. Conversely, if LRMCs are excessively discounted at certain entry/exit points to recognise such unutilised assets, Users of other entry/exit points would be required to fund a proportion of such discounts, thereby creating a cross-subsidy. In addition, the locational targeting of the costs of spare capacity results in Users paying for the capacity that happens to be available in the vicinity, rather than the capacity they utilise.

Views from respondents are specifically sought on whether this proposal represents the most appropriate treatment of spare capacity and if it better achieves the relevant methodology objectives in respect of Transportation Charges. National Grid NTS will consider such representations in making its formal proposals to the Authority to seek to implement revised capacity charging arrangements from 1st October 2007.

The closing date for responses is **Tuesday 5th June 2007**. Representation should be e-mailed to .box.transmissioncapacityandcharging@uk.ngrid.com or alternatively sent by post to; Jan Gascoigne, 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.

1 Introduction

1.1 In January 2006 National Grid NTS instigated a review of the gas transmission transportation charging arrangements with the industry via the launch of the Gas Transmission Charging Methodology Forum (Gas TCMF).

1.2 One of the key areas of the review was the methodology by which entry and exit capacity prices are determined, and the information made available to the industry to understand and replicate the price setting process. At present the methodology for determining NTS Exit Capacity and NTS Obligated NTS Entry Capacity[2] prices is contained within the Gas Transmission Transportation Charging Methodology (the "Charging Methodology"). The methodology for determining NTS Incremental Entry Capacity price schedules is contained within the Incremental Entry Capacity Release (IECR) methodology statement.

1.3 The review of the capacity charging arrangements was instigated by Ofgem's open letter of 2 December 2005 which proposed that, as part of the Transmission Price Control Review (TPCR), NTS Obligated NTS Entry Capacity reserve prices are decoupled from Entry UCAs and set on a dynamic basis from 1 April 2007. Ofgem suggested that National Grid NTS therefore develop a charging model which is made available to the industry such that users can repeat the price setting process. Ofgem also stated that a single model for determination of all entry and exit capacity prices was desirable.

1.4 In conjunction with the industry through the Gas TCMF, National Grid NTS developed a range of options for determination of Long Run Marginal Costs (LRMCs) for the purpose of determining NTS Capacity Prices.

NTS GCM01

1.5 This work led to National Grid NTS raising Pricing Consultation NTS GCM 01 on 2nd November 2006 with the consultation period ending on 30th November 2006. The consultation lead to the consultation conclusions report published on 25th January 2007 which proposed the introduction of the Transportation model for the purposes of setting NTS Entry prices and NTS Obligated NTS Entry reserve prices. The final proposal was "option 2b" which involved the calculation of NTS entry reserve prices by modelling entry flows at the obligated level within the Transportation model. The calculation of NTS incremental entry reserve prices from the Transportation model will be proposed as part of the IECR consultation.

Ofgem Decision

1.6 Ofgem's decision document, issued after an Impact Assessment had been carried out, stated; *"In summary, Ofgem considers that the Proposal better facilitates the achievement of the relevant charging methodology objectives than the current methodology, however we consider that it would be in the interests of consumers to include spare capacity in the model, as described by option 2a of NGG's consultation document. This would improve cost reflectiveness and better ensure the economic and efficient use of network assets. It would reduce the risk of underutilised assets and inefficient investment elsewhere on the network. This is a significant issue that Ofgem would urge NGG to consider in the immediate future through further modification proposals to the charging methodology. It may be that there are better solutions available which NGG can consider over the longer term, through its duty to review the suitability of the Methodology for achieving the relevant objectives."*

[2] Obligated NTS Entry Capacity has previously been referred to as Baseline NTS Entry Capacity within the Charging Methodology.

1.7 This Consultation Paper covers the introduction of proposal 2a, as contained within charging methodology consultation paper GCM01, for the purposes of setting Obligated NTS Entry Capacity reserve prices applicable to all auctioned capacity from 1 October 2007 starting from the September 2007 QSEC auction. Option 2a involves the calculation of NTS entry reserve prices by modelling entry flows at the forecast maximum Base Case (capped at the obligated capacity level), rather than at the obligated capacity level introduced through GCM01, within the Transportation model.

1.8 This consultation is being raised on the following grounds;

- The final decision on GCM01 2a/2b was finely balanced and there were more respondents to the Ofgem IA than the original GCM01 process
- New obligations on National Grid NTS in regard to entry capacity transfers, trades and substitution may make the use of forecast maximum flow, rather than obligated capacity level, in the charging methodology the more cost reflective and stable way forward.
- National Grid NTS's obligations in regard to developing an efficient and economic pipeline system and continually reviewing the charging methodology

1.9 It should be noted that the proposal outlined in this consultation paper does not impact the calculation of NTS Exit Capacity prices in any way.

2 Background

2.1 This section sets out the prevailing entry capacity charging methodology as introduced by charging methodology proposal GCM01.

Obligated NTS Entry Capacity Reserve Price Methodology

Transport Model

2.2 NTS Exit Capacity Prices are determined from a Transportation Model that calculates the Long Run Marginal Costs (LRMCs) of transporting gas from each entry point to a "reference node" and from the "reference node" to each relevant offtake point.

- The transportation model minimises the flow distance of gas around the network given the assumed pattern of supplies and demands and the constraint that at any node, demand plus flow to other nodes must equal supply and flow from other nodes.
- Any incremental flow down a line results in a reinforcement requirement, with a standard reinforcement cost. It does not consider the way in which pressure, pipeline diameter / length and flow interact – it simply assumes that, for the standard reinforcement cost, incremental flow can be routed down each existing pipeline route.
- The transportation 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. The measure of the marginal investment costs is in terms of £/GWhkm, 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.

2.3 The Expansion Constant is determined from the average cost of incremental capacity for 900mm, 1050mm and 1200mm pipeline of 100km length and recompression to 85 bar(g), calculated according to the methodology set out in Appendix B of the GCM01 consultation document. Based on this methodology, an expansion constant of £2223/GWhkm would be applied for prices effective from 1st October 2007.

NTS Entry Capacity Reserve Prices

2.4 LRMCs for determination of Obligated NTS Entry Capacity reserve prices for use in entry capacity auctions (prior to any discount that may be applied)[3] are based on the prevailing charging methodology as introduced by charging proposal NTS GCM01.

In respect of the supply and demand data input into the Transport Model:

2.5 Prices for each Gas Year are set on the basis of the relevant year's Base Case data[4] and network model(e.g. if setting Exit Capacity prices for Gas Year 2007/8, the Base Case supply/demand forecast for 2007/8 and the base network model are used), but with adjustments to the supply flows (see paragraph 2.7) to reflect the capacity level in question (see paragraph 2.6) to maintain a balanced network for charging purposes. For the avoidance of doubt, 1-in-20 peak demand flows will remain unadjusted.

2.6 Obligated NTS Entry Capacity reserve prices are set by adjusting supply flows in the Base Case data to reflect the obligated capacity level at each NTS Entry Point as defined by National Grid's NTS Licence.;

2.7 The supply flow at each NTS Entry Point is adjusted to reflect the required capacity level as follows:

- The supply flow is set at the capacity level to be provided for the entry point in question
- All other supply flows are adjusted up or down to balance the network back to the peak 1 in 20 demand level in the Base Case data

2.8 The supply adjustment for other NTS Entry Points reflects the least beneficial alternate supply flows, in terms of enabling capacity provision at the entry point in question.

2.9 The least beneficial alternate supply flows are determined by use of the Transportation Model with the Base Case scenario to calculate pipeline distances from each NTS Entry Point to every other NTS Entry Point.

2.10 For NTS Entry Points where flow needs to be added to the Base Case flow to align with the required capacity level, the remaining entry point flows are reduced in order of pipeline distance merit, starting with the furthest entry point ending with the entry point with the nearest entry point.

2.11 For NTS Entry Points where flow needs to be reduced from the Base Case flow to align with the required capacity level, the remaining entry point flows are increased in order of pipeline distance merit, starting with the nearest entry point and ending with the furthest entry point.

[3] Proposals to amend the current discounts applied to the NTS Entry Capacity reserve prices will be put forward in a separate Consultation Paper GCD04

[4] The Base Case data is consulted on through the Transporting Britain's Energy (TBE) process and is published in the Ten Year Statement.

3 Key Issues

Ofgem Decision Letter on GCM01

3.1 The Ofgem decision letter on the GCM01 final proposal noted; *"In summary, Ofgem considers that the Proposal better facilitates the achievement of the relevant charging methodology objectives than the current methodology, however we consider that it would be in the interests of consumers to include spare capacity in the model, as described by option 2a of NGG's consultation document. This would improve cost reflectiveness and better ensure the economic and efficient use of network assets. It would reduce the risk of underutilised assets and inefficient investment elsewhere on the network. This is a significant issue that Ofgem would urge NGG to consider in the immediate future through further modification proposals to the charging methodology. It may be that there are better solutions available which NGG can consider over the longer term, through its duty to review the suitability of the Methodology for achieving the relevant objectives."*

Treatment of Spare Capacity

3.2 One of the key considerations when setting the capacity charging methodology is the treatment of spare capacity in the determination of Long Run Marginal Costs (LRMCs). Under GCM01 option 2a, spare capacity due to declining terminals is catered for by using flow forecasts to set the supply level within the Transportation model such that prices decrease as the flow forecast decreases below the obligated capacity level.

3.3 If spare capacity is not appropriately accommodated in prices, resulting in higher capacity charges, than would otherwise be the case, it could discourage the use of currently unutilised NTS investments and, in the extreme, lead to asset stranding.

3.4 Conversely, if LRMCs are excessively discounted at certain entry/exit points to recognise such unutilised assets, Users of other entry/exit points would be required to fund a proportion of such discounts through the application of the TO Entry Commodity charge, thereby creating a cross-subsidy.

3.5 The issue of whether it is appropriate, and if so, how, to include spare capacity within the capacity charging methodology is extremely challenging, ensuring that there is an appropriate balance between the charging methodology objectives in respect of cost reflectivity, promoting competition and avoiding undue discrimination, while ensuring efficient and economic operation and development of the NTS.

3.6 Above all, capacity charges should be set to provide forward looking Long Run Marginal Costs to provide stable and predictable locational signals to Users to inform their decisions over where and when to bring gas into, or offtake gas from, the NTS.

Impact of Capacity Substitution

3.7 Specific obligations in respect of the substitution of NTS Entry Capacity are proposed to be included in National Grid's GT Licence (Special Condition C8D);

- to use reasonable endeavours to undertake capacity substitution where proposing to release capacity incremental to the prevailing level of obligated entry capacity, and;

- to prepare and submit for approval by the Authority a capacity substitution methodology statement setting out the methodology National Grid will use to carry out capacity substitution

3.8 This process is intended to promote the economic and efficient sizing of the NTS and is achieved by seeking to minimise the amount of investment that is required to satisfy incremental demand. Unsold capacity could be identified as suitable for substitution from locations where it is not apparently required to other locations where incremental capacity has been signalled through the long term (QSEC) auctions.

3.9 This may result in reduced levels of obligated capacity being released and hence may make the Base Case forecast flow more representative of the level of capacity released, as well as the expected flow, when compared to the prevailing obligated firm capacity level.

3.10 For the avoidance of doubt it is proposed that entry capacity substitution will result in unsold Obligated NTS Entry Capacity (i.e. the capacity that is offered for sale in the entry capacity auctions) being transferred between Entry points while the NTS SO Baseline Entry Capacity levels do not change.

4 Proposal for Consultation

4.1 This section sets out the proposal for consultation in respect of the most appropriate methodology for Obligated NTS Entry Capacity price determination in relation to all entry capacity released from 1st October 2007 starting from the September 2007 QSEC auction.

4.2 This proposal represents option 2a included within the original NTS GCM01 consultation document. In the event that this proposal is implemented, Appendix B presents indicative Obligated NTS Entry Capacity Prices that would be in place from 1st October 2007. These prices have been updated from GCM01 to take into account the revised anuitisation factor and changes to the obligated entry capacity levels.

Proposal

4.3 LRMCs for determination of Obligated NTS Entry Capacity reserve prices for use in entry capacity auctions (prior to any discount that may be applied)[5] would be based on the prevailing charging methodology as introduced by charging proposal NTS GCM01.

In respect of the supply and demand data input into the Transport Model, it is proposed that:

4.4 Prices for each Gas Year are set on the basis of the relevant year's Base Case data and network model.

4.5 Where supplies have been adjusted to attain a supply and demand balance, separate supply point specific analysis is carried out with adjustments to the supply flows (see paragraph 2.7) to reflect the maximum forecast Base Case level capped at the Obligated NTS Entry Capacity level for the entry point in question (see paragraph 2.6) and to other entry point flows to maintain a balanced network for charging purposes. For the avoidance of doubt, 1-in-20 peak demand flows will remain unadjusted.

[5] Proposals to amend the current discounts applied to the NTS Entry Capacity reserve prices will be put forward in NTS Charging Methodology Discussion Paper NTS GCD04.

4.6 The maximum forecast Base Case supply will be capped at the Obligated NTS Entry Capacity level at each NTS Entry Point and will therefore be equal to or less than the Obligated NTS Entry Capacity level.

4.7 For the avoidance of doubt the forecast maximum Base Case supply level for charge determination purposes at Aggregate System Entry Points (ASEPs) including Interconnectors, LNG importation and storage Entry Points will be the lower of the forecast maximum capability of the facility and the Obligated NTS Entry Capacity level;

4.8 The supply flow at each NTS Entry Point is adjusted to reflect the maximum forecast Base Case level as follows:

- The supply level is adjusted to the maximum forecast Base Case level for the entry point in question
- All other supply flows are adjusted up or down to balance the network back to the peak 1 in 20 demand level in the Base Case data

4.9 The supply adjustments for other NTS Entry Points reflect the least beneficial alternate supply flows, in terms of enabling capacity provision at that entry point.

4.10 The least beneficial alternate supply flows are determined by use of the Transportation Model with the Base Case scenario to calculate pipeline distances from each NTS Entry Point to every other entry point.

4.11 For NTS Entry Points where flow needs to be added to the Base Case flow to align with the required capacity level, the remaining entry point flows are reduced in order of pipeline distance merit, starting with the furthest entry point ending with the entry point with the nearest entry point.

4.12 For NTS Entry Points where flow needs to be reduced from the Base Case flow to align with the required capacity level, the remaining entry point flows are increased in order of pipeline distance merit, starting with the nearest entry point and ending with the furthest entry point.

5 Discussion

5.1 This section presents National Grid NTS's views in respect of the extent to which the proposal set out under section 4 would achieve the relevant methodology objectives under National Grid NTS's GT Licence and the EU Gas Regulations (as summarised under Appendix A).

5.2 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. Specifically where prices are established by means of auctions, reserve prices are calculated at a level that promotes efficiency, avoids undue preference in the supply of transportation services and promotes competition between gas shippers and between gas suppliers.

Promoting Efficiency and Avoiding Undue Preference

Spare Transmission Capacity

5.3 While the Transportation model does not explicitly include spare transmission capacity, pricing based on forecast Base Case flows, capped at the Obligated NTS Entry Capacity level , will produce lower prices compared to the GCM01 approach where forecast flows are less than obligated capacity levels and hence spare capacity could e said to be available.

5.4 Pricing based on forecast Base Case flows will ensure that where entry terminal flows are forecast to decline, the resulting prices will also decline hence creating an incentive to utilise any spare capacity released as a result of declining flows.

5.5 This could better ensure the economic and efficient use of network assets through reducing the risk of underutilised assets and inefficient investment.

Supply Data

5.6 All network analysis requires a balance between supply and demand and this is equally true of charging models. Under the prevailing Charging Methodology the supply forecasts are adjusted to obtain a supply and demand match given the 1-in-20 demand level. This means that some Entry Points are not explicitly at their Base Case supply levels within the charging model.

5.7 This is overcome under this option by carrying out Entry Point specific analysis for those Entry points that were not at their Base Case levels in the initial analysis and obtaining a supply and demand balance by supply substitution.

5.8 For example, where an Entry points was not at its Base Case level due to a supply surplus or where a supply was not at its Obligated NTS Entry Capacity level, it could be adjusted up to that level with the entry point furthest from the entry point in question being adjusted in the opposite direction.

5.9 This approach ensures that all prices would be generated at a consistent supply level hence avoiding the undue preference that might be conferred by pricing some Entry Points based on reduced flows. For the avoidance of doubt the Base Case supply level at Interconnector, LNG importation and storage Entry Points will be the forecast maximum capability of the facility.

Promoting Competition

5.10 It is National Grid's view that competition can be promoted in terms of the development of the Gas Transmission Transportation Charging Methodology by making it simple and easy to understand such that prices can be replicated and forecast by Users.

5.11 The Transportation charging model should allow both National Grid NTS and Users to easily make quick assessments of the value of incremental capacity, therefore enabling the user to make informed decisions about purchasing capacity.

5.12 Basing prices on analysis of the maximum forecast Base Case level could allow greater stability and hence transparency compared to using the Obligated NTS Entry Capacity level due to the potential variability in the obligated capacity level resulting from National Grid NTS's Licence obligation to use reasonable endeavours to undertake capacity substitution where proposing to release capacity incremental to the prevailing level of Obligated NTS Entry Capacity.

Cost Reflectivity

5.13 EC Regulation 1775/2005 on conditions for access to the natural gas transmission networks (binding from 1 July 2006) states that the principles for network access tariffs or the methodologies used to calculate them shall reflect actual costs incurred for an efficient and structurally comparable network operator.

5.14 The prices generated from the Transportation Model are reflective of the costs that have been incurred in making physical system capacity available (through the assumptions in the Expansion Constant). Calculating prices on forecast flow approach with a Transportation Model will therefore result in Users paying differentially for the capacity they are forecast to require during the relevant Gas Year.

5.15 Basing prices on the analysis of the maximum forecast Base Case level might improve cost reflectivity compared to using the Obligated NTS Entry Capacity level due to the potential variability in the obligated capacity level resulting from National Grid NTS's Licence obligation to use reasonable endeavours to undertake capacity substitution where proposing to release capacity incremental to the prevailing level of Obligated NTS Entry Capacity.

6 Questions for Consultation

National Grid NTS invites views in respect of whether the proposal set out under section 4 would achieve the relevant charging objectives under National Grid NTS's GT Licence and the EU Gas Regulations, specifically that:

Q1. Obligated NTS Entry Capacity prices are determined from the maximum forecast Base Case scenario, with Entry point specific analysis, such that each NTS Entry Point is at the relevant supply level and a supply/demand balance achieved via supply substitution. The relevant supply level should be the maximum forecast Base Case supply, capped at the Obligated NTS Entry Capacity level, at each NTS Entry Point (this will therefore be equal to or less than the Obligated NTS Entry Capacity level).

Q2. This approach is an appropriate approach to factoring in spare capacity in that prices will decline if forecast flow declines hence creating an incentive to utilise spare capacity.

Q3. This approach is consistent with National Grid NTS's proposed entry capacity substitution obligations as prices would not be influenced by Obligated NTS Entry Capacity level changes resulting from entry capacity being substituted from one entry point to another.

Implementation

Q4. This proposal (NTS GCM 06) is implemented for price determination in relation to all entry capacity released from 1st October 2007 starting from the September 2007 QSEC auction.

The closing date for submission of your responses is **Tuesday 5th June 2007**. Your response should be e-mailed to box.transmissioncapacityandcharging@uk.ngrid.com or alternatively by post to; Jan Gascoigne, 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.

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

Appendix A - Licence Relevant Objectives and EU Gas Regulations

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.

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.

Where prices are established by means of auctions, either

4) No reserve price is applied or
5) Reserve prices are calculated at a level that promotes efficiency, avoids undue preference in the supply of transportation services and promotes competition between gas shippers and between gas suppliers.

National Grid NTS is obliged to keep the NTS Charging Methodology under review at all times for the purposes of ensuring that it achieves the relevant objectives.

National Grid NTS also has an obligation to use all reasonable endeavours to ensure that obligated entry capacity is offered for sale in at least one clearing auction *providing that this does not contravene wider Licence obligations including methodology objective (5) listed above.*

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

All but the last of the principles listed above map onto the objectives for National Grid's Transmission Transportation Charging Methodology. In terms of cross border trade, the Regulation recognises that funding for network investment may require different tariffs across different transmission systems.

Appendix B – Indicative Obligated NTS Entry Reserve Prices

This appendix sets out the indicative Obligated NTS Entry Capacity reserve prices, under this proposal, which would apply from 1 October 2007 for the use of the NTS. These prices have been calculated based on the proposed licence obligated firm entry capacity levels and an anuitisation factor of 0.10272. It should be noted that final prices will be subject to the final Licence drafting.

	Proposal		
	Base Case Level (GCM06)		
NTS Entry Point	**2007/8**	**2008/9**	**2009/10**
Avonmouth LNG	0.0001	0.0001	0.0001
Bacton	0.0097	0.0096	0.0103
Barrow	0.0080	0.0042	0.0026
Burton Point	0.0001	0.0001	0.0001
Caythorpe	0.0066	0.0068	0.0073
Cheshire	0.0001	0.0001	0.0001
Dynevor Arms LNG	0.0001	0.0026	0.0043
Easington / Rough	0.0072	0.0074	0.0082
Fleetwood	0.0009	0.0001	0.0001
Garton	0.0065	0.0068	0.0086
Glenmavis	0.0186	0.0162	0.0139
Hatfield Moor	0.0021	0.0024	0.0023
Hole House Farm	0.0001	0.0001	0.0001
Hornsea	0.0077	0.0074	0.0089
Humbly Grove (Barton Stacey)	0.0001	0.0001	0.0001
Isle of Grain	0.0001	0.0001	0.0001
Milford Haven	0.0120	0.0134	0.0137
Partington	0.0001	0.0001	0.0001
St Fergus	0.0348	0.0313	0.0297
Teesside	0.0092	0.0051	0.0010
Theddlethorpe	0.0046	0.0049	0.0056
Wytch Farm	0.0001	0.0001	0.0001