



National Grid Gas NTS and other interested parties

*Promoting choice and value for all customers*

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Date: 22 April 2008

Dear Colleague

### **The Entry Capacity Transfer and Trade Methodology Statement**

Ofgem<sup>1</sup> has considered the issues in the entry capacity transfer and trade methodology statement consultation conclusions report submitted by National Grid Gas NTS (NGG NTS) on 22 February 2008 pursuant to paragraphs 11(g)(iii) and 12(g)(iii) of Special Condition C8D of its Gas Transporter Licence (GTL). Having regard to the principal objective and statutory duties of the Authority<sup>2</sup>, and for the reasons set out in the letter, the Authority has decided that:

- It will approve the entry capacity methodology statement pursuant to paragraphs 11(a)(i) and 12(a)(i) of Special Condition C8D of NGG NTS's GTL

This letter outlines the background to NGG NTS's submission of the entry capacity transfer and trade methodology for approval from the Authority and gives reasons for our decision.

### **Background**

The 2002-2007 price control settlement placed an obligation on NGG NTS to use all reasonable endeavours to offer for sale a baseline level of capacity at each Aggregate System Entry Point (ASEP). This provided gas shippers with certainty about the minimum amount of capacity that NGG NTS would make available but did not allow for unsold capacity to be reallocated to other entry points where users value it most. Additionally, current arrangements allow a user to trade all or part of its National Transmission System (NTS) entry capacity rights to another user at the same ASEP; however, this does not allow for trade between different ASEPs.

As part of the Transmission Price Control Review (TPCR) 2007-2012 Ofgem placed a new obligation on NGG NTS to facilitate the transfer of unsold entry capacity to meet demands for capacity elsewhere on the NTS, referred to as "transfers". Ofgem also placed an obligation to facilitate the trade of sold capacity between entry points, referred to as "trades". This was to guard against the risk of capacity being unused and unavailable ('sterilised') at an entry point where it is not needed.

The new licence obligations were directed to be implemented on 5 September 2007. These specifically required the preparation and submission of an entry capacity transfer

<sup>1</sup> Ofgem is the Office of Gas and Electricity Markets Authority. The terms 'Ofgem', 'the Authority' and 'We' are used interchangeably in this letter.

<sup>2</sup> Set out in Section 4AA of the Gas Act 1986, as amended.

methodology statement and an entry capacity trade methodology statement for approval by the Authority. In view of the commonality of these processes NGG NTS submitted a joint entry capacity transfer and trade methodology statement for approval. The entry capacity transfer and trade methodology statement set out NGG NTS's proposed operational rules for deriving 'exchange rates' for transfers and trades of entry capacity between ASEPs. The 'exchange rate' means the ratio by which the entry capacity at a donor ASEP is changed to provide one additional unit of entry capacity at the recipient ASEP.

The new licence obligations<sup>3</sup> require NGG to use reasonable endeavours to ensure that the entry capacity transfer and trade methodology facilitates the four objectives of:

- i. Ensuring that entry capacity transfer and trade is effected in a manner which makes effective use of the pipeline system to which this licence relates
- ii. Ensuring that entry capacity transfer and trade is effected in a manner which is compatible with the physical capability of the pipeline system to which this licence relates
- iii. Avoiding material increases in the costs (including entry capacity constraint management costs in respect of obligated entry capacity previously allocated by the licensee to relevant shippers) that are reasonably expected to be incurred by the licensee as a result of facilitating entry capacity transfer and trade
- iv. In so far as is consistent with (i), (ii) and (iii) above, facilitating effective competition between relevant shippers and between relevant suppliers

On 30 July 2007 NGG NTS initiated a consultation on its proposed Interim Transfer and Trade Methodology Statement ("the Interim Methodology Statement"), pursuant to paragraphs (11)(g)(ii) and 12(g)(ii) of Special Condition C8D of its GTL. On 31 August 2007, following the close of the consultation NGG NTS submitted to the Authority a report setting out the responses to the consultation and confirming that no changes were made to its proposed Interim Methodology Statement as a result of the consultation.

On 6 September 2007 the Authority approved this Interim Methodology Statement. Transfer and Trade System Entry Capacity (TTSEC) auctions were held on two separate days in September and October 2007. This was for the allocation of entry capacity from November 2007 to March 2008.

On 31 October 2007 the Authority issued a direction requiring NGG NTS to have an approved Enduring Transfer and Trade Methodology Statement ("the Enduring Methodology Statement") in place by 2 June 2008.

On 19 December 2007 NGG NTS began its consultation on its proposed Enduring Methodology Statement pursuant to paragraphs (11)(g)(ii) and 12(g)(ii) of Special Condition C8D of its GTL. Following its consideration of responses, NGG NTS submitted its proposed Enduring Methodology Statement for approval under paragraphs (11)(g)(iii) and 12(g)(iii) of Special Condition C8D of its GTL on 22 February 2008.

### **Entry Capacity Transfer and Trade Methodology**

The Enduring Methodology Statement sets out NGG NTS's proposed operational rules for deriving ex-post 'exchange rates' for transfers or trades of entry capacity between ASEPs. It is envisaged that these exchange rates would then be used within the Uniform Network Code (UNC) to facilitate the transfer and trade of entry capacity. We have issued today a separate decision letter approving UNC modification proposal UNC 187A<sup>4</sup> which provides for the introduction of an enduring entry capacity trade and transfer process to be added to the existing Rolling Monthly System Entry Capacity (RMSEC) auctions.

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<sup>3</sup> Special Conditions C8D 11 and C8D 12

<sup>4</sup> UNC 187A - Alterations to the RMSEC Auction to Accommodate Transfer and Trade of Capacity between ASEPs

Historical and forecast demand figures are used in conjunction with supply scenarios at corresponding demand levels to derive test scenarios. Network analysis is then conducted for these test scenarios to ascertain the amount, if any, of entry capacity which the network can accommodate moving from one ASEP to provide the amount of entry capacity requested at another ASEP. The main elements of the Enduring Methodology Statement are described below.

NGG NTS determines an appropriate range of demand using historical averages and forecast data<sup>5</sup>. NGG NTS identifies one or more of these demand levels with which to undertake exchange rate analysis. NGG NTS then develops 'test scenarios'. For each demand level recent historic supply patterns across ASEPs, which when aggregated are within the +/- 10 per cent range of that demand level, are used. The top 25 per cent of severest supply patterns (representing operational difficulty), or minimum of 5, are averaged. This average amount is adjusted for each ASEP, pro-rata, to match the demand level being analysed. Where appropriate, changes are built into the scenarios to reflect significant developments. Where more than one test scenario is identified for an ASEP, analysis is done for each with any constraints identified placing a limit on exchange rates.

Network analysis of moving entry capacity between ASEPs, such that the network does not fail, is carried out using the test scenarios. Network analysis is carried out as follows:

- (i) If gas flow at the Recipient ASEP<sup>6</sup> in the test scenario is below the obligated level then it is increased to the obligated level and gas supply rebalanced at a third ASEP
- (ii) Gas flow at the Recipient ASEP is increased from that of the obligated level to satisfy the bid being considered
- (iii) The Donor ASEP<sup>7</sup> is determined as that ASEP providing the most favourable exchange rate – this requires calculation of exchange rates for all potential Donor ASEPs
- (iv) The obligated level at the Donor ASEP is reduced by the same amount that the Recipient ASEP was increased in (ii)
- (v) Where a reduction in the obligated level at the Donor ASEP does not result in an equivalent reduction in gas flow at the Donor ASEP then it is necessary to rebalance the gas supply at a third ASEP.
- (vi) The Third ASEP is chosen for rebalancing on the basis of (a) low interactivity with the Recipient ASEP, and (b) sufficient level of flow to accommodate the rebalancing

If the network can accommodate the demand/supply position the exchange rate is calculated. If the network fails to accommodate the demand/supply position further adjustments are made by reducing the obligated level at the Donor ASEP, and any rebalancing at the third ASEP done. This continues until the network does not fail. The exchange rate is calculated by the following equation:

Exchange rate = Reduction in Obligated Capacity at Donor ASEP ÷ Capacity increase at Recipient ASEP

## Respondents' views

NGG NTS received 7 responses to the consultation it initiated on 19 December 2007. No respondent explicitly expressed its support or opposition to the Enduring Methodology Statement. However, one responded stated that it had no specific issues with the Enduring Methodology Statement whilst two were waiting for results of a planned audit of the implementation of the interim methodology before deciding on whether to support the Enduring Methodology Statement.

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<sup>5</sup> Three demand levels are specified: one is the average of the minimum daily demand over the last 5 years for the period; another is the average of the maximum daily demands over the last 5 years for the period; and the other is the forecast demand for a cold season in the relevant period.

<sup>6</sup> The Recipient ASEP is defined in UNC187/UNC187A as an ASEP where there is unsatisfied demand, following completion of allocating capacity on an individual ASEP basis.

<sup>7</sup> The Donor ASEP is defined in UNC187/UNC187A as an ASEP where there is no unsatisfied demand, following completion of allocating capacity on an individual ASEP basis.

One respondent welcomed the more detailed version of the Enduring Methodology Statement as an improvement on the interim methodology. However, other respondents raised a number of issues regarding lack of transparency. Examples of the lack of transparency include:

- Definition of 'material increase in costs' and the 'other constraint management costs' and 'other factors' associated with material increases in costs
- Definition of 'credible' difficult supply situation in relation to the supply scenarios used in deriving the test scenarios
- Definition of 'significant changes in demand' in relation to adjusting the historic and forecast demand levels NGG NTS uses in deriving the test scenarios
- Which third ASEP would be used for rebalancing purposes

They offered two broad measures to deal with this. The first was for NGG NTS to address the lack of transparency by providing further explanations and clarity in specific areas mentioned, though it was recognised that this may not always be possible due to reasons of commercial confidentiality. The other measure is for greater monitoring of NGG NTS. This could be through monitoring of application of the methodology (possibly through audits), for NGG NTS to publish after the first applications of the methodology how it was followed and for the assumptions used when a trade or transfer has not been accepted to also be published.

A number of respondents noted that the lack of transparency on certain aspects gave NGG NTS considerable discretion to determine exchange rates best suited to its commercial objectives.

One respondent wanted confirmation as to the appropriateness of a number of assumptions used in the Enduring Methodology Statement, including the demand levels used, stability limits and the use of TBE 'flexed scenarios'.

### **NGG NTS response**

In response to these consultation responses NGG NTS made some changes to its proposed Enduring Methodology Statement prior to submitting it to the Authority. These changes were to provide some further clarity for 'material increase in costs' and to provide examples of a 'significant change in demand'.

### **Ofgem's view**

In the following section we assess this proposed Enduring Methodology Statement against the objectives set out in NGG NTS's licence.

*Ensure that the entry capacity transfer and trade is effected in a manner which makes effective use of the pipeline system to which this licence relates*

Ofgem considers that implementation of the proposed Enduring Methodology Statement should result in greater amounts of unsold and sold capacity being made available and allocated than would otherwise be the case. According to NGG NTS, the use of ex-post exchange rates, as distinct from ex-ante rates as used in the interim methodology, should allow for less conservative exchange rates to be applied. Ofgem accepts that as a result of ex-post exchange rates NGG NTS would face considerably less risk compared with ex-ante exchange rates. We would therefore expect to see significantly greater amounts of capacity transferred and traded, as NGG NTS said would be the case at workstream meetings. The key objective of introducing entry capacity transfer and trade obligations in NGG NTS's licence is to reduce the risk of sterilised capacity to deliver more effective and efficient use of the pipeline system. We therefore conclude, on the basis of current

available information, that the Enduring Methodology Statement should facilitate this objective. However, we still think that the use of ex-post exchange rates provides less certainty for shippers who are submitting capacity to be traded and this is an undesirable feature of the arrangements.

*Ensuring that entry capacity transfer and trade is effected in a manner which is compatible with the physical capability of the pipeline system to which this licence relates*

The derivation of the test demand/supply scenarios is on the basis of historical demand figures, credible 'difficult' supply scenarios and consideration of new gas supplies coming on stream, existing gas supplies declining and new NTS infrastructure.

Furthermore the modelling and network analysis considers existing and new commitments (such as capacities and pressures on NTS) and existing and new infrastructure. Additionally, the exchange rate calculation is on the basis of a balanced network and whether it can accommodate the supply/demand position.

We would therefore expect that the methodology allows for transfers and trades which are compatible with the physical capability of the NTS.

*Avoiding material increases in the costs (including entry capacity constraint management costs in respect of obligated entry capacity previously allocated to the licensee to relevant shippers) that are reasonably expected to be incurred by the licensee as a result of facilitating entry capacity transfer and trade*

The methodology clearly states that the calculation of the exchange rate is such that there would be no material increase in costs.

As we pointed out in our open letter, dated 19 June 2007, and in our decision letter on the Interim Methodology Statement, dated 6 September 2007, Ofgem expects that the transfer and trade methodology will not be used to actually reduce NGG NTS's buyback risk as part of the overall TPCR package.

*Facilitating effective competition between relevant shippers and between relevant suppliers*

We consider that, relative to the current arrangements, the implementation of the transfer and trade methodology should help to ensure that shippers can obtain access to greater levels of available capacity at entry points where it is valued. We consider that this should, in turn, facilitate effective competition between shippers seeking to bring gas onto the NTS. In particular, the introduction of the methodology should help to ensure that capacity is traded into entry points where it is demanded, thereby ensuring that otherwise efficient sources of gas are not artificially held off the market due to capacity sterilisation.

*Way forward*

Ofgem considers that the proposed Enduring Methodology Statement is a step forward in implementing the transfer and trade policies such that there is better use of the physical capacity of NTS through reducing the level of sterilised capacity, which will promote competition between shippers and suppliers and will ultimately benefit consumers.

However, we consider that there are still a number of potential deficiencies in the Enduring Methodology Statement. These relate to the lack of transparency, degree of NGG NTS discretion, and the rational over the choice of data. These are explained in more detail below:

- Issues over the lack of transparency
  - The inclusion of 'other constraint management costs' provides NGG with another way of significantly reducing its risk without making it clear what the criteria are for applying this

- The calculation and use of the Nodal Allocation Maximum (which is the ceiling on entry capacity which is not to be exceeded at that ASEP as a result of any transfer or trades), when it is used if the ASEP is the constraining factor, is not stated
- How NGG NTS establishes whether there would be a material increase in costs
- No description of what 'further adjustment' entails when supplies are capped at the obligated level at certain ASEPs as part of the development of test scenario
- No details of how NGG NTS identifies imbalances which present risk of material increase in cost – which results in NGG NTS supplementing steady state analysis with transient state analysis
- Issues over the level of NGG NTS discretion
  - 'Flexing' of TBE scenarios gives NGG NTS discretion over exchange rate calculation
  - The decision over whether 'multiple analysis' is needed to provide NGG NTS with 'sufficient' assurance that transfer and trade will not result in a material increase in cost gives NGG NTS considerable discretion
  - The determination of how many demand levels to consider
  - NGG NTS's ability to determine additional test scenarios for each ASEP 'as appropriate'
  - When or how the 'appropriate changes will be built into the scenarios to reflect significant developments'
  - Limiting its analysis of donor ASEPs to what its experience has shown the most favourable exchange rate to be
- Ex-post exchange rates are less transparent giving more discretion to NGG (especially in the absence of a network model in public domain), which creates uncertainty for shippers which may inhibit their participation. Ex-post exchange rates reduces risk for NGG compared with that agreed at TPCR
- Inconsistency between use of historic demand data and forecast supply data in calculation
- Use of historic supply patterns may not be appropriate for declining terminals

We expect NGG NTS to publish as much detail after running the transfer and trade process in terms of the assumptions used and how the methodology was followed. This should explain clearly to shippers transfers and trades that were completed and those that could not be facilitated. This would greatly benefit shippers in understanding the application of the methodology on a practical level and help the successful development of the arrangements in subsequent iterations.

In our prior approval of the Interim Methodology Statement we identified that there were still several major issues to be addressed, such as the lack of transparency in the calculations underlying the methodology and use of data, the apparently conservative nature of the model inputs and concern that this methodology could be used to actually reduce the level of buyback risk agreed as part of the TPCR package. We expressed the view at the time that improved transparency in how these calculations are carried out would address these outstanding concerns.

There was a strong desire from industry to conduct an audit of the interim capacity transfer and trade processes in order to inform industry, to ascertain that NGG NTS complied with the methodology in conducting the interim TTSEC auction, to provide confidence about the appropriateness of the methodology, and to address some of the information asymmetry with regard to the analyses undertaken and assumptions used.

Independent consultants have been used to conduct the audit which commenced in mid-April. It is anticipated that the initial report to Ofgem will be completed by early May, and that a non-confidential version of the audit findings may be made available to industry by the end of May. Ofgem expects NGG NTS to take into account any recommendations of the audit that are applicable to the enduring regime and to make any necessary changes to the Enduring Methodology Statement such that both the audit recommendations and the deficiencies highlighted above are dealt with before the September RMSEC auction.

We intend to monitor carefully NGG NTS's responses to the audit process and the extent to which it elects to adopt the recommendations. To the extent that NGG NTS is unwilling to propose changes to the methodology which are requested by shippers, we will need to consider whether the governance of the methodology should be revisited in the context of the Governance Review.

In our open letter of November 2007, which initiated the governance review<sup>8</sup>, we indicated that we may wish to consider changing the governance of the network charging methodologies to enable industry participants, other than networks to propose amendments. In some instances, this could be achieved by transferring the methodologies into the codes. As with the network charging methodologies, NGG NTS's entry capacity transfer and trade methodology, has significant impacts upon the decisions of shippers in terms of trading capacity and entering gas onto the NTS. As such, if NGG NTS are unwilling to propose changes to the methodology that are requested by shippers, it may be necessary to consider whether shippers should be entitled to propose such changes themselves.

### **Ofgem's decision**

Following consideration of the documentation provided and having regard to the Authorities principal objective and statutory duties and for the reasons set out above, Ofgem has decided that it will approve the Enduring Entry Capacity Transfer and Trade Methodology Statement submitted by NGG NTS on 22 February 2008 pursuant to paragraphs 11(g)(iii) and 12(g)(iii) of Special Condition C8D of its gas transporter licence.

Yours sincerely



Steve Smith  
**Managing Director, Networks**

**Signed on behalf of the Authority and authorised for that purpose.**

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<sup>8</sup> Review of industry code governance, Ofgem Open letter, 28 November 2007