

| Issue | Revision |
|-------|----------|
| 0.1   | DRAFT    |

# **The Entry Capacity Substitution Methodology Statement**

**Effective from 1<sup>st</sup> September 2007 (in  
respect of QSEC auctions)**

DRAFT FOR CONSULTATION

## ABOUT THIS DOCUMENT<sup>1</sup>

This document describes the methodology that National Grid Gas plc's NTS business ("National Grid") will utilise when considering the substitution of NTS entry capacity from one Aggregate System Entry Points "ASEP" to another ASEP where demand exceeds existing allocated quantities. In particular, it defines:

- under what circumstances National Grid will consider such substitutions; and
- the process to be undertaken by National Grid to determine its proposals to substitute or revise baseline quantities.

This document is one of a suite of documents that describe the release of incremental obligated NTS entry capacity by National Grid and the methodologies behind them. The other documents are available on our Charging website at:

<http://www.nationalgrid.com/uk/Gas/Charges/statements/>

This statement is effective from 1 September 2007.

This document has been published by National Grid in accordance with Special Condition C8D of National Grid's Gas Transporter Licence in respect of the NTS (the Licence). National Grid believes the content is consistent with its duties under the Gas Act and is consistent with the Standard Conditions, Standard Special Conditions and Special Conditions of the Licence.

It should be noted that this document does not provide the methodology by which, and from when, NTS Entry Capacity will be made available. Such methodology can be found in the Incremental Entry Capacity Release Methodology Statement (IECR).

This statement of the Entry Capacity Substitution Methodology is effective from September 2007 in respect of incremental obligated NTS Entry Capacity, released as a result of valid bids made in the QSEC auctions, intended to be made available for use in the unconstrained period (i.e. capacity made available beyond investment lead times).

If you require further details about any of the information contained within this document or have comments on how this document might be improved please contact our UK Transmission Gas Access and Charging team on **01926 656310** or **01926 656217**, by e-mail to "[Box.transmissioncapacityandcharging@uk.ngrid.com](mailto:Box.transmissioncapacityandcharging@uk.ngrid.com)" or by post at:

National Grid House  
UKT Commercial  
Warwick Technology Park  
Gallows Hill  
Warwick  
CV34 6DA

---

<sup>1</sup> At the time of drafting this statement agreement has not been reached on the detail of National Grid's Gas Transporter licence in respect of the NTS for the period starting April 2007. This statement has been drafted on the basis of initial drafts of the licence and hence specific licence references may be subject to amendment. Should the specific conditions relating to capacity substitutions be significantly at variance with National Grid's expectations then this statement may be withdrawn or amended.

## Contents

|                                      |          |
|--------------------------------------|----------|
| <b>ABOUT THIS DOCUMENT</b>           | <b>2</b> |
| <b>GENERAL INTRODUCTION</b>          | <b>4</b> |
| Background                           | 4        |
| National Grid's Licence Obligations  | 4        |
| <b>CHAPTER 1: PRINCIPLES</b>         | <b>5</b> |
| Purpose of the Methodology Statement | 5        |
| <b>CHAPTER 2: METHODOLOGY</b>        | <b>6</b> |
| Introduction                         | 6        |
| Application of Zones                 | 6        |
| Substitution Analysis (see diagram)  | 6        |
| Conditions for Capacity Substitution | 7        |
| Analysis Output                      | 8        |

DRAFT FOR CONSULTATION

## GENERAL INTRODUCTION

### Background

1. National Grid is the owner and the operator of the gas National Transmission System (NTS) in Great Britain. The NTS is a network of pipelines which transports gas safely and efficiently from coastal terminals and storage facilities to exit points from the system.
2. This publication sets out the methodology that applies for the substitution of NTS entry capacity between NTS Entry Points for use in the unconstrained period. The methodology for the substitution of NTS Entry Capacity for use in the constrained period (i.e. within investment lead times) can be found in the "Entry Capacity Transfer and Trade Methodology Statement"<sup>2</sup>.
3. Details of National Grid and its activities can be found on its internet site at [www.nationalgrid.com](http://www.nationalgrid.com). An electronic version of this publication, along with the other related statements can be found on the following web page: "<http://www.nationalgrid.com/uk/Gas/Charges/statements/>".

### National Grid's Licence Obligations

4. Overriding obligations applicable to this statement set out in the Gas Act and the Standard, Standard Special and Special Conditions of National Grid's GT Licence in respect of the allocation of NTS Entry Capacity, are that it must be:
  - conducted on a non-discriminatory basis – (see Standard Special Condition A6);
  - conducted in an efficient, economic and co-ordinated manner – (see Special Condition C5); and
  - consistent with the safe and efficient operation of National Grid's pipe-line system and security of supply obligations – (see Standard Special Condition A17 and Standard Special Condition A9).
5. Specific obligations in respect of the substitution of NTS Entry Capacity and applicable to this statement are set out in National Grid's GT Licence Special Condition C8D and are:
  - [To use reasonable endeavours to undertake capacity substitution where proposing to release capacity incremental to the prevailing level of obligated entry capacity].
  - [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].
  - [To review the capacity substitution methodology to ensure that it better meets the capacity substitution objectives which are to:
    - ensure that capacity substitution is effected in a manner which is compatible with the physical capability of the NTS;
    - avoid undue increases in cost (including capacity buy-back costs) that are reasonably expected to be incurred as a result of capacity substitution; and
    - so far as is consistent with the above two points, to facilitate effective competition between relevant shippers and suppliers.]

---

<sup>2</sup> It is intended that this document will be published in July 2007 following industry consultation and is subject to approval by the Authority.

## CHAPTER 1: PRINCIPLES

### Purpose of the Methodology Statement

6. This methodology is intended to promote the economic and efficient sizing of the NTS. For the purposes of this methodology this objective is achieved by seeking to minimise the amount of investment that is required to satisfy incremental demand for NTS Entry Capacity. Specifically, the methodology describes how 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 demanded.
7. This Methodology Statement has been produced to meet the requirements of Special Condition C8D of the Licence in respect of the preparation of a statement setting out the methodology by which National Grid will determine its proposals for the substitution of NTS baseline entry capacity. National Grid believes the content is consistent with its duties under the Gas Act and is consistent with the Standard Conditions, Standard Special Conditions and Special Conditions of the Licence. In making capacity available at the recipient ASEP, in a quantity determined in accordance with this methodology, National Grid considers that it will have complied with its obligation to provide obligated entry capacity at the donor ASEP and such substituted capacity will not be available for sale in future auctions.
8. Consistent with the Licence and Uniform Network Code, NTS Entry Capacity is a firm commercial right that may be offered on a daily basis or multiples thereof: it does not reflect a commitment or obligation upon National Grid to undertake any investment on its network, including, but not limited to the provision of a physical connection to the NTS.

## CHAPTER 2: METHODOLOGY

### Introduction

9. This section explains the step by step approach that National Grid will undertake in order to assess the ability of the NTS to accommodate requests for incremental entry capacity at individual ASEPs through the substitution of NTS Entry Capacity across ASEPs so as to minimise the need for investment in the NTS.
10. Before application of the methodology the following conditions are required to be satisfied;
  - a. Demand for incremental capacity has satisfied the tests for release of Incremental Obligated Entry Capacity as set out in the Incremental Entry Capacity Release Methodology Statement (IECR).
  - b. Capacity that is not offered for release in the Quarterly System Entry Capacity (QSEC) auctions will not be available for substitution between entry points.
11. Following each QSEC auction demand for Incremental Obligated Entry Capacity will be identified. If Incremental Obligated Entry Capacity is not released then no further action need be taken.
12. If, in accordance with the IECR, National Grid considers that it is appropriate to release Incremental Obligated Entry Capacity then this methodology shall apply.

### Application of Zones

13. Where ASEPs utilise sections of common NTS infrastructure and consequently are deemed to be 'interactive' in terms of utilising network capability National Grid will group the ASEPs into zones.
14. The zones and the ASEPs that are included in each are provided as Appendix 1 to this methodology statement. Prior to each QSEC auction National Grid will publish any revisions to the zones.

### Substitution Analysis (see Diagram 1)

15. Where an incremental signal has been received analysis is undertaken to determine what capacity exchange would be required to satisfy the incremental capacity request without the need for investment. Capacity substitution will firstly be considered within the relevant entry zone. If this cannot satisfy the increment at the recipient ASEP then substitutions out-with the relevant entry zone will be considered.
16. Analysis of substitution opportunities to individual recipient ASEPs will commence by considering the recipient ASEP with the lowest Licence Revenue Driver for the first tranche of incremental capacity (as defined in the Licence). All within zone substitutions shall be progressed before across zone assessments.
17. Substitutions from individual donor ASEPs will commence by reducing the capacity at the nearest ASEPs that has spare capacity until either:
  - the incremental request is satisfied; or

- all available capacity at donor ASEPs has been substituted to the level of sold capacity. In this case the process will move to the assessment of potential substitutions across zones.

The nearest ASEP will be determined according to pipeline distance and is selected in preference to more distant ASEPs as this will create greatest interchangeability.

Spare capacity is any unsold baseline capacity after adjusting for any previously substituted capacity and excluding any capacity not offered for release in the QSEC auctions.

18. All capacity substitutions shall be verified by network analysis. Where such analysis fails, the quantity of capacity substituted from the donor ASEP shall be increased until the analysis does not fail or there is no more capacity available to substitute (in this event the residual reinforcement shall be identified).
19. When the appropriate level and combinations of substitution of unsold entry capacity have been identified the need for any residual investment will be confirmed by reversing, by 2mcmd, the latest substitution considered (i.e. by increasing the capacity at the donor ASEP) and validating through network analysis. If network pressures or appropriate plant operating conditions cannot be maintained then the proposed transfer is deemed to be appropriate.

### Conditions for Capacity Substitution

20. Potential capacity substitutions shall be validated through network analysis and will be supplemented by constraint risk assessment. With regard to constraint risk (i.e. a potential for capacity buy-backs being required) the objective shall be to avoid incremental change in risk. Hence National Grid will not propose capacity substitution where this results, under any credible scenario, in the capability of the NTS being reduced below that required.
21. Substitutions shall be assessed against existing commitments, including capacities, and pressures on the network and existing and planned network infrastructure. Substitutions shall not be accepted if this leads to existing (and committed) commitments not being maintained. These commitments will be taken from regulatory and commercial agreements and statutory instruments and are additional to the conditions set out in the National Grid annual planning procedures.
22. Supply forecasting will be based on sold capacity and Transporting Britain's Energy (TBE) forecasts and will be supplemented by other relevant and credible information available to National Grid.
23. Potential capacity substitutions will be adjusted where a residual investment continues to be required and the investment costs required by National Grid do not in its estimation adequately cover the costs of, or return on, such investment. The most economic solution will be proposed taking into account minimum economic investment and substitution quantities.
24. Potential capacity substitutions will be rejected where the required quantity of capacity to be substituted from the donor ASEP is equal to, or greater than, ["n"] times the quantity made available at the recipient ASEP. This is intended to avoid the sterilisation of large quantities of capacity at donor ASEPs for future QSEC auctions for limited benefit in terms of reduced investment.

## Analysis Output

25. On completion of the above analysis the following effects of the accepted capacity substitutions will be recorded and proposed to Ofgem:
- the proposed increased baseline capacity at any ASEP where National Grid proposes to release obligated incremental NTS Entry Capacity and this capacity increase can be wholly or partly met by substituting capacity to it; and
  - the reduced level of baseline capacity available for sale in future auctions at donor ASEPs.

DRAFT FOR CONSULTATION

### Appendix 1. Entry Capacity Zones

The current ASEPs that constitute each Entry Zone are provided below. There are seven zones.

| <b>Zone</b>         | <b>ASEP</b>   |
|---------------------|---|
| Easington Zone      | Easington terminals<br>(inc Rough)<br>Hornsea<br>Garton / Aldborough<br>Hatfield Moor |
| Theddlethorpe Zone  | Theddlethorpe   |
| South East Zone     | Bacton terminals (inc.<br>Continental Interconnector)<br>Grain LNG                    |
| Northern Triangle   | Barrow terminals<br>Teesside terminals<br>St Fergus terminals<br>Glenmavis            |
| North West Corridor | Fleetwood<br>Partington<br>Burton Point<br>Hole House Farm<br>Byley / Cheshire        |
| West UK Zone        | Milford Haven<br>Dynevor Arms   |
| South West UK Zone  | Humbley Grove<br>Avonmouth  |

Diagram 1 – Process for Substitution Analysis

