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

**Effective from [1<sup>st</sup> September 2007] (in  
respect of NTS Entry Capacity available in  
the Constrained Period).**

## **ENTRY CAPACITY TRANSFER & TRADE METHODOLOGY STATEMENT**

### **Document Revision History**

<b>Version/ Revision Number</b>	<b>Date of Issue</b>	<b>Notes</b>
0.4	May 2007	Initial industry consultation.
0.5	July 2007	Document history page added. Major revision to align to zone based process and S23 licence drafting

## About this Document<sup>1</sup>

This document describes the methodology that National Grid Gas plc's NTS business ("National Grid") will utilise when facilitating the transfer of unsold, or the trade of sold, NTS Firm Entry Capacity from one ASEP to another ASEP. In particular, it defines:

- under what circumstances National Grid will consider such transfers or trades; and
- the process to be undertaken by National Grid to determine the quantities that it will allow to be transferred.

This document is one of a suite of documents that describe the release of obligated and incremental NTS firm 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 (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.

This statement of the Entry Capacity Transfer and Trade Methodology has been developed in conjunction with related UNC modification proposals. It is effective in respect of obligated NTS Entry Capacity previously made available for sale to Users for use in the constrained period (i.e. within 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** or at:

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<sup>1</sup> At the time of drafting this statement agreement has not been reached on the detail of the Licence for the period starting April 2007. This statement has been drafted on the basis of the Authority's notice under section 23(3) of the Gas Act (Ofgem reference 151/07) dated 25/06/07 and hence specific licence references may be subject to amendment. Should the specific conditions relating to capacity transfers and trades be significantly at variance with National Grid's expectations then this statement may be withdrawn or amended.

## Contents

<b>GENERAL INTRODUCTION</b>	<b>5</b>
Background	5
National Grid's Licence Obligations	5
<b>CHAPTER 1: PRINCIPLES</b>	<b>7</b>
Purpose of the Methodology Statement	7
<b>CHAPTER 2: METHODOLOGY</b>	<b>8</b>
Introduction	8
Derivation of Base Data	8
Demand	8
Nodal Allocation Maximum (NAM)	8
Entry Zones	9
Merit Order	10
Supply Scenarios	10
Network Analysis and Modelling	10
Zonal Allocation Maximum (ZAM)	10
Exchange Rate Calculation	14
Within Zone Calculation	14
Across Zone Calculation	14
Appendix 1: Entry Capacity Zones	16
Appendix 2: High Level process for Calculation of the Zonal Allocation Maximum	17

## GENERAL INTRODUCTION

### Background

1. National Grid is the owner and the operator of the gas National Transmission System (NTS) in Great Britain.
2. The NTS is a network of pipelines, presently operated at pressures of up to 85 bar, which transports gas safely and efficiently from coastal terminals and storage facilities to exit points from the system. Exit points are predominantly connections to Distribution Networks (DNs), but also include storage sites, and direct connections to large industrial consumers and other systems, such as interconnectors to other countries.
3. These operations are carried out to meet the needs of the companies that supply gas to domestic, commercial and industrial consumers and to power stations. In 2005/06 1,067 TWh of Gas was transported to these consumers.
4. This publication sets out the methodology that applies for the transfer of unsold, and trading of sold, NTS Firm Entry Capacity between NTS Entry Points for the constrained period.
5. Details of National Grid and its activities can be found on the company's 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 at the following web page "<http://www.nationalgrid.com/uk/Gas/Charges/statements/>".

### National Grid's Licence Obligations

6. New and existing Users of the NTS are able to request to purchase NTS Entry Capacity products for any Aggregate System Entry Point ("ASEP"). Such capacity requests will be considered against the provisions of National Grid's statutory licence obligations and in accordance with its published methodologies.
7. Overriding obligations applicable to this statement set out in the Gas Act and the Standard, Standard Special and Special Conditions of the 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).
8. Specific obligations and rights in respect of the transfer and trading of NTS Entry Capacity applicable to this statement are set out in Special Condition C8D of the Licence and are:
  - Prepare an entry capacity trade methodology statement which National Grid shall apply for the purpose of facilitating entry capacity trade, including the calculation of entry capacity trade exchange rates.
  - Submit for approval by the Authority a statement of the entry capacity trade methodology.

- Prepare an entry capacity transfer methodology statement which National Grid shall apply for the purpose of facilitating entry capacity transfer, including the calculation of entry capacity transfer exchange rates.
- Submit for approval by the Authority a statement of the entry capacity transfer methodology.
- Use reasonable endeavours to ensure that the methodologies facilitate the capacity trade/transfer objectives.
- The capacity trade and capacity transfer objectives are to:
  - ensure that the trade/transfer is effected in a manner which makes effective use of the NTS;
  - ensure that the trade/transfer is effected in a manner which is compatible with the physical capability of the NTS;
  - avoid material increases in cost (including entry capacity constraint management costs) that are reasonably expected to be incurred as a result of facilitating entry capacity trades/transfers; and
  - so far as is consistent with the above three points, to facilitate effective competition between relevant shippers and suppliers.
- To provide to the Authority a statement on the application and implementation of the capacity transfer/trade methodologies.

Due to the high degree of similarity between the trade and transfer methodologies National Grid has prepared this single document to satisfy the licence requirements outlined above.

## CHAPTER 1: PRINCIPLES

### Purpose of the Methodology Statement

- 9 For the purpose of this document:
- Entry Capacity Trade means the process by which previously allocated firm entry capacity rights; and
  - Entry Capacity Transfer means the process by which unsold obligated entry capacity rights; are moved from one ASEP to another ASEP.
- 10 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 it will determine a capacity trade or transfer rate (an “exchange rate”) in respect of, and to facilitate;
- the trading of capacity between entry points or
  - the transfer of capacity between entry points
- 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.
- 11 For the purpose of this statement a capacity “exchange rate” means a rate at which obligated entry capacity rights shall, if the trade or transfer is completed, be reassigned between two different ASEPs. It represents the amount by which the firm entry capacity at a “donor” ASEP would need to be reduced so as to provide one additional unit of firm entry capacity at a “recipient” ASEP. In making capacity available at a recipient ASEP, in a quantity determined in accordance with this methodology, National Grid will have complied with its obligation to provide obligated entry capacity at the donor ASEP and such traded or transferred capacity will not be available for sale in future auctions.
- 12 The methodology described in this statement has been developed to best meet the capacity trade and capacity transfer objectives detailed in paragraph 8.
- 13 The rationale for the process described in this statement is to ensure that the NTS is efficiently and economically sized and used. In particular it is intended to ensure that:
- a) the sale of capacity does not create a process whereby sold capacity at a location where it is no longer required prevents the release of capacity elsewhere due to National Grid’s on-going commitment in respect of the sold capacity; or
  - b) obligated capacity levels do not create requirements whereby unsold capacity at a location is effectively sterilised and cannot be used to support incremental demand elsewhere.
- The purpose is, therefore, to maximise the availability of firm capacity at locations where demand exists. Hence the process applies to capacity available in the constrained period (i.e. within investment lead times) as such capacity requests cannot be satisfied through other measures.
- 14 Consistent with the Licence and Uniform Network Code, firm entry capacity is a 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

- 15 This methodology is intended to explain the step by step approach that National Grid will undertake in order to determine capacity exchange rates in support of requests for the transfer or trade of capacity, made available for use in the constrained period, between ASEPs, so as to maximise the availability of firm Entry Capacity at ASEPs of higher value as demonstrated by shipper bids. It does not describe the processes by which a User may request a capacity transfer or trade. Nor does it describe the processes that National Grid will undertake to validate any request or to implement a transfer or trade. These processes are to be provided for in the Uniform Network Code.
- 16 The methodology assesses the expected cost and risk of constraint management actions being required under prevailing conditions and in the event of a transfer or trade. The Methodology has been developed to meet its licence condition that no material increase in costs is reasonably expected as a result of the transfer or trade. By undertaking assessments using a range of demand levels and limiting the analysis to certain scenarios National Grid is accepting a degree of increased risk that on any Day the capability at any ASEP may be below that assumed. Based on these assumptions, National Grid has for the time being taken the view that this increase is not material.

### Derivation of Base Data

#### Demand

- 17 The capability of any ASEP is partly dependent upon the system demand i.e. the ability of the NTS to accept gas at ASEPs partly depends upon how much is being offtaken (e.g. at LDZ offtakes, large directly connect loads and interconnectors). At times when demand is lower the capability of ASEPs will also be lower, assuming a constant supply pattern.
- 18 Daily demand varies significantly throughout the year and within individual months. Hence, when assessing the risk of incurring additional costs for one or more gas days (i.e. constraint management costs) as a result of relocating monthly tranches of capacity, a fundamental part of the process is to determine the appropriate range of demand to be considered in subsequent network analysis and modelling.
- 19 National Grid will determine the appropriate range of demand to be used in determining exchange rates (i.e. maximum and minimum) from historical records for the particular month in question.

#### Nodal Allocation Maximum (NAM)

- 20 Where any transfer or trade results in the obligated capacity at a recipient ASEP exceeding the NAM of the ASEP such transfer or trade will be limited such that the NAM is not exceeded. The NAM will be calculated in accordance with paragraphs a) and b) below.

- a) The NAM for each ASEP for each month will principally be determined through network analysis and modelling (with a cap of 150%<sup>2</sup> of the obligated quantity), subject to paragraph b).

The value per month will be linearly interpolated from the nodal maximum obtained through analysis performed at three demand levels.

- forecast highest for a typical winter,
- typical summer demand and
- typical shoulder month

The demand level for calculating the NAM will be set at the minimum historical demand for the month in question.

In performing the network analysis and modelling, the network will be based on existing infrastructure and projects planned to be completed by the month in question. It will also be assumed that there is 100% plant availability and there are no physical connection constraints or contractual limits at the particular ASEP.

Contractual and safety pressure limits on the network will be adhered to. Where these cannot be maintained the system (i.e. specific ASEP) will be considered to have reached its capability limit.

Each ASEP is considered independently and the NAM derived by redistributing supplies across the network in a manner favourable to the specific ASEP. Hence supplies at ASEPs having the greatest interaction with the specific ASEP are reduced (towards zero).

- b) Where National Grid is aware of physical connection, safety or contractual limits at the particular ASEP which would mean that the NAM calculated through paragraph a) could not be honoured, National Grid will limit the NAM to the maximum historical daily gas flow from the last five years, so long as this figure is below any constraining or safety limit. If the historical daily gas flow is not below this limit, then the NAM will be set at the obligated level and no trades or transfers will be possible. It may be argued that the NAM should be set at the constraining limit, however generally these limits are confidential and contained within Network Entry Agreements or other bi-lateral contracts. Therefore these limits cannot be consistently applied and would lead to uncertainty within the process.

## Entry Zones

- 21 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.
- 22 The Entry Zones and the ASEPs that are included in each are as published in the latest version of National Grid's Ten Year Statement. This is re-produced in Appendix 1 of this methodology statement.
- 23 Prior to relevant capacity auctions National Grid will publish, with other pertinent information, a list of the ASEPs contained within each Entry Zones.

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<sup>2</sup> 150% is taken as this is the default maximum percentage of existing obligated entry capacity available for Users to signal their requirement for incremental demand in the QSEC auctions.

## Merit Order

- 24 For each Entry Zone and for any comparison between zones a merit order will be calculated of all ASEPs. The Merit Order is used within the process to identify either the least or most favourable ASEP to be used in the trade or transfer process.
- 25 The Merit Order will be calculated as follows. The range of daily demand for the month in question will be identified. For this demand range, and based predominantly on data from National Grid's Transporting Britain's Energy process ("TBE") the ratio of expected gas flow at the ASEP against the obligated capacity level will be determined. If prevailing market conditions or market intelligence suggest that TBE assumptions on expected flows should be adjusted, National Grid may adjust the assumption. The ASEP with the highest ratio will be highest in the Merit Order.
- 26 This ratio is taken because it identifies the ASEP where any reduction in an ASEP's capacity is more likely to impact actual flows and thus would indicate the ASEPs with the best exchange rate possibilities.

EXAMPLE	For the month January – a demand point of 351 mcm/d assessed			
	Expected flow	Obligated level	Ratio	Merit Position
ASEP A	40	50	0.8	1
ASEP B	100	150	0.66	2

## Supply Scenarios

- 27 The latest published TBE scenarios will be used as the basis for analysis. However TBE considers a limited range of scenarios designed for long-term planning and are not designed to test for material costs from constraints arising from short term supply patterns (which can be very different). The TBE scenarios will therefore be flexed to test the exchange rate or Zonal Allocation Maximum. Such flexing will reflect historic and potential future supply patterns. These scenarios are referred to as test scenarios.

## Network Analysis and Modelling

- 28 The network analysis and modelling is based on steady state conditions. When establishing capability it will not be assumed that the system is constantly in balance – instead it will be assumed that flow variation within and across days continues as per historical patterns. This net effect is referred to below as a system balance.

## Zonal Allocation Maximum (ZAM)

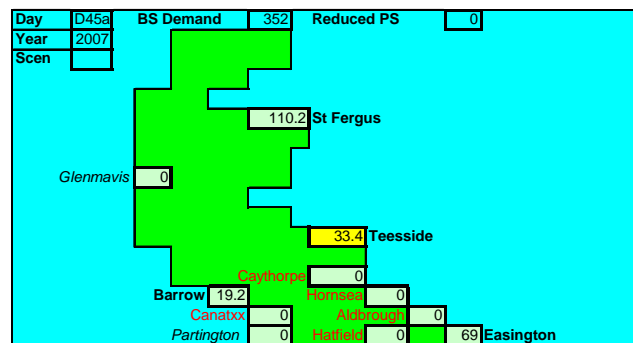
- 29 In order to provide ex-ante exchange rates, for an auction with multiple trade and transfers, it is essential to establish limits, as each trade or transfer has an impact on subsequent trades and transfers. By undertaking trade and transfers at a Zonal level it is possible to provide ex-ante exchange rates for multiple transfers and trades that reflect the physical capability of the network and expected costs. In this process the ZAM sets the overall boundaries for trades and transfers within zone and between zones. For the high level process please refer to Appendix 2.
- 30 The ZAM will be determined in a manner that facilitates an exchange rate of 1:1 between ASEPs within an Entry Zone under a set of test scenarios. It should be noted that there is not actually a physical 1:1 relationship between all ASEPs within a zone as this does not reflect local network constraints, however by setting a ZAM

and utilising a merit order (see above) the risk associated with this approach is deemed for the time being to be not material.

- 31 The ZAM for each entry zone and for each month will be determined as follows. For each zone, individual analysis will be performed for the minimum and maximum expected demand for the month in question. If deemed appropriate within the time available further analysis may be conducted at other demand points within this range.

Utilising the base case TBE supply scenario and the existing obligated levels at each ASEP a supply and demand balance will be established.

Example: The diagram below illustrates a realistic supply pattern in the North of the network for a typical January day, with a demand level of 352 mcm/day and Teesside at its obligated level. The actual analysis would use National Grid's base case scenario for this demand level as the starting point.



Each zone will initially be analysed independently. For the particular zone being analysed individual ASEP analysis will be conducted. Only recipient ASEPs, and therefore zones, where the obligated level could increase via a trade or transfer process will be analysed.

#### TBE Base Case Analysis

- i) The flow at the analysed ASEP will be increased to the NAM, and the Maximum Permitted Flow Level (MPFL)<sup>3</sup>, initially the obligated level, at other ASEPs within the zone will be reduced by a cumulative amount equivalent to the difference between the NAM at the analysed ASEP and its obligated level. In selecting the order in which the MPFL of other ASEPs will be reduced the Merit Order for the zone will be applied in reverse order.

Based on these new conditions, the network will be rebalanced taking into account the higher flow at the analysed ASEP and MPFL at other ASEPs within the zone. By reducing the MPFL at other ASEPs within zone this may or may not reduce their flows, where the flow has not been reduced the rebalance will occur out of zone. The network will be re-analysed to see if there are any material increases in costs<sup>4</sup>, i.e. over and above any forecast with the existing obligated levels. If there are no material

<sup>3</sup> For the purposes of the analysis the MPFL sets a limit on the amount that specific ASEPs within the zone can flow i.e. if the MPFL is 20 units the flow at the ASEP for the analysis will be constrained to a maximum of 20 units.

<sup>4</sup> To meet the Licence test, for winter 07/08 a simplifying assumption may be used i.e. that an incremental forecast system failure (e.g. constraint) would result in a material increase in costs

increases in costs it would indicate that under this supply and demand scenario it would be possible to undertake trade and transfers at a 1:1 exchange rate up to existing obligated levels without a probable material increase in risk. However if there are material increases in costs further analysis will need to be undertaken before moving on to step ii). This additional process is described below.

Where there are material increases in costs from this initial analysis, further reductions will be made to the MPFL of ASEPs within the zone. In selecting the order in which the MPFL of ASEPs will be reduced the Merit Order for the zone will be applied in reverse order. This process will be repeated until either no material increases in costs occur or the rebalancing of the original increase in flow from the obligated level to the NAM at the analysed ASEP is all undertaken within the zone. If no material increases in costs occur the MPFLs will be recorded and analysis will proceed to step ii).

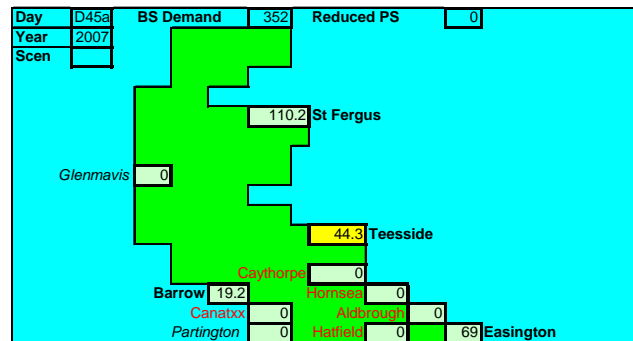
However it may not be possible with the flow at the analysed ASEP remaining at the NAM, even with the flow increase above the obligated level at the analysed ASEP rebalanced within zone, to avoid material increases in costs. This would indicate that a 1:1 exchange rate within zone would not be appropriate up to the NAM for the analysed ASEP. As discussed in the derivation of the NAM the value determined by network analysis and modelling requires a favourable supply pattern at all ASEPs, some of these ASEPs may be outside of the zone.

In this case the flow at the analysed ASEP will be reduced in steps towards its obligated level. The new flow level at the analysed ASEP will be termed the Within Zone NAM (WZNAM). This process will be repeated until no material increases in costs occur. At this point the MPFL for all within zone ASEPs and the WZNAM at the analysed ASEP will be recorded and analysis will proceed to step ii).

**Example:** At Teesside the NAM would be set at 44.3 mcm/day (maximum historical gas flow over the last 5 years). The flow at Teesside would be increased to 44.3 mcm/ day and the aggregate MPFL at other ASEPs within the zone reduced by 10.3 mcm/day (difference between NAM and obligated level at Teesside) according to the Merit Order applied in reverse order. The table below illustrates a potential reverse Merit Order for the Northern Triangle Zone.

	<b>Obligated level</b> (mcm/day)	<b>MPFL</b> (mcm/day)	<b>Reduction</b> (mcm/day)
<b>Glenmavis</b>	3	0	3
<b>Barrow</b>	28	20.7	7.3
<b>St Fergus</b>	154	154	0

The network would be rebalanced based on these new parameters, see diagram. As the MPFLs would not reduce the flow at any of the ASEPs within the zone, for this particular supply and demand pattern, all the rebalancing would occur out of zone.



In this case the network analysis and modelling determined that there were no material increases in costs and therefore it would be possible to move to step ii) without further reducing the MPFL of within zone ASEPs or the flow level at Teesside. Therefore at this stage of the process it would still be possible to undertake 1:1 trades and transfers up to the aggregate obligated level in the Northern Triangle.

### Test Scenarios Analyses

- ii) Starting from the MPFL at within zone ASEPs and the WZNAM at the analysed ASEP obtained from Step i) further analysis is undertaken with the test scenarios. These will take account of any trade or transfer process that would limit the obligated level at ASEPs within the zone based on the WZNAM at the analysed ASEP. If there are no material increases in costs the MPFLs at within zone ASEPs and the WZNAM at the analysed ASEP are deemed acceptable and the analysis will proceed to Step iii)

Where there are material increases in costs, further reductions will be made to the MPFL of ASEPs within the zone. In selecting the order in which the MPFL of ASEPs will be reduced the Merit Order for the zone will be applied in reverse order. This process will be repeated until either no material increases in costs occur or the rebalancing of the original increase in flow from the obligated level to the NAM at the analysed ASEP is all undertaken within the zone. If no material increases in costs occur the MPFLs will be recorded and analysis will proceed to step iii).

However it may not be possible with the flow at the analysed ASEP remaining at the WZNAM, even with the flow increase above the obligated level at the analysed ASEP rebalanced within zone, to avoid material increases in costs. This would indicate that a 1:1 exchange rate within zone would not be appropriate up to the WZNAM for the analysed ASEP. As discussed in the derivation of the NAM the value determined by network analysis and modelling requires a favourable supply pattern at all ASEPs, some of these ASEPs may be outside of the zone.

In this case the flow at the analysed ASEP will be reduced in steps towards its obligated level. The new flow level at the analysed ASEP will be termed the Within Zone NAM (WZNAM). This process will be repeated until no material increases in costs occur. At this point the MPFL for all within zone ASEPs and the WZNAM at the analysed ASEP will be recorded and analysis will proceed to step iii).

- iii) **Consider other ASEPs within Zone**  
At this stage of the process the initial ZAM for the zone based on the ASEP analysed will be calculated by summing together the MPFL for each ASEP within the zone and the WZNAM at the analysed ASEP.

This process will be repeated for all potential recipient ASEPs within the zone and the selected demand levels for the month in question. The lowest initial ZAM across the analyses and the WZNAM for the potential recipient ASEPs will be used in Step iv). The lowest ZAM value is taken as otherwise it would be possible to achieve an obligated level at a recipient ASEP that could not be delivered on certain days of the month. This capacity would then potentially need to be bought back at a material cost.

- iv) **Cross Zone Check**  
The above process will be repeated for all relevant zones and recipient ASEPs. A final network analysis and modelling check will then be performed at the selected demand levels with all potential recipient ASEPs being able to flow up to their WZNAM. If this results in material increases in costs under test scenarios, the WZNAM at each potential recipient ASEP will be reduced by equal amounts and the system rebalanced. This process will be repeated until no material increases in costs occur or until obligated levels are reached at each potential recipient ASEP.

The initial ZAM for each zone will be recalculated based on any reductions made to the WZNAM at the recipient ASEPs. This value will then be used in all subsequent calculations and for any UNC trade or transfer process

## Exchange Rate Calculation

### Within Zone Calculation

- 32 For each zone and month an amount of Available Capacity for Allocation (ACfA) can be derived by deducting the aggregate sold capacity level of all ASEPs within the zone, taking into account any capacity made available through a trade process, from the ZAM. Capacity transfers and trades will be undertaken at an exchange rate of 1:1 up to the amount of the ACfA unless in doing so material increases in costs were expected to be incurred.

### Across Zone Calculation

- 33 An exchange rate will be determined for the movement of capacity across Entry Zones, where there is a beneficial relationship between zones i.e. reduction in flows within one zone would allow more gas to flow out of another zone. For example the Northern Triangle, Easington, Theddlethorpe and South East zones currently have a beneficial relationship to each other.
- 34 The exchange rate between zones will be calculated on a monthly basis and will be determined as follows. The analysis will be performed for the minimum and maximum expected demand for the month in question. If deemed appropriate further analysis may be conducted at other demand points within this range.

- 35 For each zone and month the ACfA can be derived by deducting the aggregate sold capacity level of all ASEPs within the zone, taking into account any capacity (expected to be or) made available through a trade process, from the ZAM.

Exchange rates will be calculated by moving increments of the ACfA from one zone (donor) to another zone (recipient), initially on a 1:1 basis. The capacity moved from the donor will reduce the MPFL at the ASEP highest in the merit order. The flow level in the recipient zone will be increased by an equivalent amount at the ASEP highest in the merit order. This amount will be added to the higher of the obligated level or the WZNAM provided it does not exceed the NAM at the ASEP. If the NAM is reached the remaining flow will be added to the next potential recipient ASEP in the merit order on a similar basis. If there is no additional headroom at potential recipient ASEPs the capacity increment will be reduced to the remaining headroom level.

Network analysis and modelling will be performed at the demand levels selected with the above exchange in place for a range of test scenarios. If there are no material increases in costs the exchange rate will be deemed acceptable and the process will be repeated for further increments.

However if there are material increases in costs, the exchange rate will be reduced i.e. less flow will be added to the recipient zone, until the point is reached at which no material increases in costs occur. This will then determine the exchange rate applicable for the capacity increment. At a certain point it may not be possible to avoid material increases in costs even with infinite exchange rates - at this stage the exchange rate will be deemed to be zero.

The output of this analysis will be an exchange rate table. The following table suggests an expected format but no inference should be taken from the ranges or rates (the analysis output may be higher or lower etc):

Zone 1 ACfA (mcm/day)	Exchange rate from Zone 1 to Zone 2
0-10	2:1
10-30	3:1
30-50	5:1
50-100	n/a

The applicable exchange rate for a requested quantity will be based on the full quantity requested and not individual parts thereof. For example from the table above if 10 units were requested in zone 2 and all of the ACfA in zone 1 was still available this would equate to 25 units in zone 1 and the applicable exchange rate would be 2.5:1. Similarly if 10 units of the ACfA in zone 1 had already been allocated the 10 units requested in zone 2 would equate to 36.67 units and the applicable exchange rate would be 3.667.

### Appendix 1: Entry Capacity Zones

The current (as at the date of publication of this statement) ASEPs that constitute each Entry Zone are provided below. There are seven zones.

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

**Appendix 2: High Level process for Calculation of the Zonal Allocation Maximum**