

## **DISCUSSION REPORT**

**Modification Proposal to the Gas Transmission  
Transportation Charging Methodology &  
Associated UNC and Licence Issues**

**NTS GCD 08R:**

**NTS Entry Charging Review**

**15<sup>th</sup> March 2010**

## Table of Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>2</b>
<b>1. INTRODUCTION .....</b>	<b>4</b>
Concerns .....	4
Review Objectives.....	4
<b>2. BACKGROUND .....</b>	<b>4</b>
The TO Entry Commodity Charge .....	4
Entry Capacity Auction Release Obligations & Reserve Pricing Setting .....	4
Over- recovery of Entry Auction Revenue .....	5
Entry Capacity Incentive and Neutrality Arrangements .....	6
<b>3. DISCUSSION .....</b>	<b>7</b>
Factors Contributing to the High TO Entry Commodity Charge Rate.....	7
Solutions Identified by the Entry Charging Review Group.....	7
Potential Solutions Discounted by the Entry Charging Review Group .....	8
Historical and Future Revenue Analysis .....	9
Entry Capacity Substitution.....	10
Clearing Obligation.....	11
Licence and UNC Frameworks .....	11
Interruptible Quantity.....	12
Further Options Considered by the Entry Charging Review Group.....	12
Phased Approach.....	12
European Comparison .....	13
Summary.....	13
<b>4. SUMMARY OF RESPONSES.....</b>	<b>14</b>
Support for the Proposal .....	14
Detailed Responses by Discussion Question .....	15
Responses on the Issues with the Current High TO Commodity Costs .....	27
Responses on Consistency with European Legislation .....	28
Responses on the Relevant Charging Objectives .....	29
<b>5. WAY FORWARD.....</b>	<b>32</b>
<b>APPENDIX A. – HISTORIC ANALYSIS .....</b>	<b>33</b>
<b>APPENDIX B. – FORWARD LOOKING ANALYSIS .....</b>	<b>37</b>
<b>APPENDIX C. – INTERRUPTIBLE QUANTITY ANALYSIS.....</b>	<b>40</b>
<b>APPENDIX D. – KEY NTS ENTRY CAPACITY CHARGING CHANGES .....</b>	<b>41</b>
<b>APPENDIX E. – RELEVANT CHARGING OBJECTIVES .....</b>	<b>42</b>

## Executive Summary

NTS charging discussion document NTS GCD 08 set out, for discussion, options for revising the Gas Transmission Transportation Charging Methodology (the “Charging Methodology”), and options for revising the Uniform Network Code (UNC) identified via discussions within the Entry Charging Review group (ECRG). The document was issued by National Grid in its’ role as Gas Transporter Licence holder in respect of the NTS (“National Grid”).

In August 2009, National Grid launched a fundamental review of entry charging principles through the formation of the ECRG. This was in response to growing industry concern about the increasing rate of the TO entry commodity charge. TO Entry Commodity Charges have increased, year-on-year, due to the increasing revenue under-recovery from NTS Entry Capacity auctions.

Through the ECRG, the quantities of firm and interruptible capacity made available at zero reserve price, the quantities of entry capacity procured ahead of the gas day and the ability of shippers to profile their capacity procurement have been identified as the key contributing factors to the high level of the TO Entry Commodity Charge.

It was requested by the ECRG that the discussion paper (NTS GCD 08) be raised to seek views on the conclusions of the ECRG and the potential ways forward identified. The review group has identified that a phased approach may be of benefit. The first phase could involve the removal of entry capacity reserve price discounts and a UNC Modification Proposal to reduce the quantities of daily interruptible entry capacity (DISEC) released, with further phases to be developed through the ECRG. It is anticipated that later phases may include the re-introduction of daily and monthly capacity reserve price multipliers within the Charging Methodology.

The areas for discussion were;

- The agreed objectives of the entry charging review
- A phased implementation approach
- The removal of entry capacity discounts
- The potential re-introduction of price multipliers for Daily and Monthly Entry Capacity
- The 50-50 entry-exit TO revenue split within the Charging Methodology
- The application of the TO Entry Commodity Charge
- The calculation of the Daily Interruptible NTS Entry Capacity quantity released
- The entry capacity neutrality mechanism
- Potential Licence Clearing Obligation and Revenue Mapping Changes
- Auction timing and frequency

National Grid NTS received 9 responses to its consultation on NTS GCD 08; 6 respondents expressed support for removing entry capacity discounts and revising interruptible entry capacity release, 2 were not in support of removing entry capacity discounts, and 3 were not in support of revising interruptible entry capacity release.

Copies of the responses have been posted on the Gas Charging section of the National Grid information website;

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

### Way Forward

National Grid intends to raise a charging proposal to remove the firm Daily NTS Entry Capacity Discounts and to raise the associated UNC Modification Proposal to remove the references to the within-day Daily NTS Entry Capacity zero reserve price.

National Grid intends to further discuss a UNC Modification Proposal relating to interruptible release changes within the UNC Transmission Workstream.

National Grid does not intend to raise a UNC Modification Proposal relating to the removal of within-day Daily Obligated NTS Entry Capacity revenue from the capacity neutrality mechanism at this time. Initial assessment has indicated that this is highly unlikely to be deliverable by 1st October 2010. The charging proposal to remove the discounts will incorporate a proposal to treat Daily Obligated NTS Entry Capacity revenue, not redistributed via the capacity neutrality mechanism, as TO revenue. This would facilitate the treatment of Daily Obligated NTS Entry Capacity revenue as TO revenue for charge setting purposes, should a Licence change mapping within-day obligated Daily NTS Entry Capacity, and a UNC Modification Proposal to remove this revenue from the capacity neutrality arrangements be implemented at a later date.

This report has been placed on National Grid's information website: <http://www.nationalgrid.com/uk/Gas/Charges/>

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## 1. Introduction

### Concerns

- 1.1. In August 2009, National Grid launched a fundamental review of entry charging principles through the formation of the entry charging review group (ECRG). This was in response to growing industry concern about the increasing rate of the TO entry commodity charge.
- 1.2. TO Entry Commodity Charges have increased, year-on-year, due to growing under-recovery of Entry Capacity Revenue.
- 1.3. This discussion paper provides an update on the latest developments with regards to the entry charging review and seeks views on the proposed way forward.

### Review Objectives

- 1.4. The entry charging review has focussed on NTS entry revenue recovery from the available capacity products and the impact of the commodity charge on the distribution of costs on shippers at each aggregated NTS system entry point (ASEP).
- 1.5. The objectives of the review, agreed by the ECRG, are to identify any charging methodology and/or UNC modifications required to;
  - Continue to recover allowed revenue while achieving the NTS Licence and EU relevant charging objectives.
  - Maximise the proportion of NTS TO target entry revenue recovered through entry capacity charges.
  - Appropriately incentivise long term booking of NTS Entry Capacity.
  - Appropriately differentiate by price between the NTS Entry Capacity products made available.
  - Incentivise Security of Supply.

## 2. Background

### The TO Entry Commodity Charge

- 2.1. In accordance with the NTS charging methodology, National Grid recovers 50% of its TO allowed revenue (having first deducted metering and DN pensions related revenue) from entry charges with the remaining 50% recovered from exit charges.
- 2.2. NTS Entry capacity charges are not adjusted for allowed revenue, and any shortfall between target TO entry revenue and TO Entry capacity charges is recovered via the TO entry commodity charge, which is levied on all entry allocations other than storage and short-haul allocations.

### Entry Capacity Auction Release Obligations & Reserve Pricing Setting

- 2.3. National Grid offers NTS Entry Capacity for sale in a series of long, medium and short term auctions. It was envisaged that entry capacity auctions would provide reliable and robust investment signals and avoid undue preference in the provision of entry capacity.
- 2.4. National Grid has a Licence obligation to make available capacity, up to the defined obligated NTS Entry Capacity level at each ASEP in all auctions, with incremental obligated capacity above this level being made available only in the long term QSEC auction.

- 2.5. The obligated entry capacity level incorporates:
- Initial NTS Obligated Entry Capacity as defined by the Licence
  - Incremental obligated capacity that has previously been released
  - Entry capacity that has been substituted to or from the ASEP as a result of National Grid's Entry Capacity Substitution Methodology
- 2.6. A proportion of Non-incremental Obligated Entry Capacity (10% for the 2007-2012 Price Control Period) is held back from the long term QSEC auction for full release in monthly and shorter term auctions. In the case of new entry points the initial NTS SO Baseline Entry Capacity is zero and therefore there are no medium or short term auctions until obligated NTS Entry Capacity has been procured and released through a long-term QSEC auction.
- 2.7. Obligated NTS Entry Capacity is made available in quarterly blocks through the Long term QSEC auctions with a P0 reserve price. P0 prices are currently set using the Transportation Model with the relevant entry point modelled as flowing at the obligated level.
- 2.8. Unsold Obligated NTS Entry Capacity from the QSEC auctions is made available in monthly blocks through the annual AMSEC auction and through the monthly RMTTSEC auctions. The reserve prices are currently set using the Transportation Model with the relevant entry point at the obligated level.
- 2.9. All NTS capacity products are priced on the same basis, under the prevailing Charging Methodology, with a days worth of capacity priced at 1/365th of the annuitised long run marginal cost (LRMC). Day ahead daily firm entry capacity prices are then discounted by 33%<sup>1</sup> and within-day daily entry capacity prices and daily interruptible entry capacity prices are discounted by 100%.
- 2.10. It should be noted that NTS exit prices are adjusted for allowed revenue by adding a uniform constant adjustment to all exit LRMCs. This process could not be replicated exactly for entry capacity charges due to the number of auctions held ahead of the formula year when the level of remaining allowed revenue is unknown.
- 2.11. The 33% discount for day-ahead capacity originates from the introduction of daily capacity auctions<sup>2</sup>. At this time, monthly and daily capacity products were auctioned with reserve prices equal to 75% and 50% of the administered entry capacity prices i.e. the price that would allow the collection of target revenue from forecast peak capacity requirements. The ratio of these prices was retained via the 33% discount at the time of the introduction of the long term QSEC auctions.
- 2.12. The 100% discount is consistent with the National Grid NTS Licence obligation to hold a clearing obligation. A clearing auction is defined as an auction where either all capacity is sold or a zero reserve price applies.

### **Over-recovery of Entry Auction Revenue**

- 2.13. The current mechanisms that apply, where auction revenues (ahead of the gas day and excluding non obligated sales) exceed 50% of allowed TO revenue, are the buy-back offset mechanism and the TO Entry Commodity rebate mechanism.
- 2.14. The buy-back offset mechanism was implemented through PC65 and most recently revised through GCM09. This mechanism apportions the over-recovery to offset the entry capacity buyback costs, which are met by shippers via the UNC defined capacity neutrality process. The level of over-recovery redistributed is capped at the level of the buy-back costs.

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<sup>1</sup> NTS capacity prices are expressed to four decimal places (p/kWh/day) and hence are subject to rounding.

<sup>2</sup> Key NTS Entry Capacity Charging Methodology changes are outlined in Appendix D

- 2.15. The TO Entry Commodity rebate mechanism was implemented through GCM10. This mechanism retrospectively rebates all or a proportion of TO Entry Commodity charges paid throughout the formula year. A further mechanism was introduced through GCM12 which allows a TO Entry Commodity credit which is an extension of GCM11 and effectively offsets the SO Entry Commodity charges.

### **Entry Capacity Incentive and Neutrality Arrangements**

- 2.16. Currently, revenue from the sale of within-day firm entry capacity, any non-obligated entry capacity sold in any auction, and any DISEC sold, is defined as SO revenue in accordance with the NTS Licence. This revenue is redistributed through the UNC defined entry capacity neutrality mechanism.
- 2.17. These arrangements were put in place to provide linkage between entry capacities sold within-day, and potential buyback costs and any non obligated and potential buyback costs resulting from the sale of that entry capacity. The arrangements create an incentive on National Grid to release as much capacity as possible taking into account risk of buyback.
- 2.18. Neutrality costs and revenues are shared for each gas day between National Grid NTS SO and Users, the latter prorated to their firm Entry Capacity holdings.
- 2.19. There is a fifty percent sharing factor relating to the sale of within-day entry capacity, including non-obligated released within-day or in any other auction. The incentive results in the potential for additional SO allowed revenue, equal to fifty percent of the within-day entry capacity plus non-obligated entry capacity revenue, being recovered through the SO commodity charge, which is levied on all entry and exit allocations other than storage and short-haul. It should be noted that the incentive also looks at capacity management costs but they are not relevant for this paper.

### 3. Discussion

#### Factors Contributing to the High TO Entry Commodity Charge Rate

- 3.1. Early experience of entry capacity auctions (1998 - 2002) was of bidding behaviour resulting in significant revenue over recovery. This may have been due to northern constraints and competition for St Fergus capacity, and limited experience of entry auctions. This behaviour resulted in charging methodology proposals that looked at resolving over recovery and reducing entry capacity floor/reserve prices.
- 3.2. Recent Experiences (2002 - Present) is of bidding behaviour resulting in under recovery, other than when a constraint became material in the Easington area. This may be due to a number of factors including; increased experience of auctions and lack of locational competition for capacity, increased certainty of capacity availability associated with baselines, profiling of capacity across the year, the clearing obligation and zero reserve prices. This behaviour has resulted in the introduction of the TO Commodity Charge and its increasing rate over the years.
- 3.3. Three key sources of entry capacity under recovery have been identified;
  - The Price Paid
    - Prior to the 2007 QSEC auction, entry capacity reserve prices were set based on the UCA and were lower than prices set under the prevailing charging methodology. If capacity were procured, throughout the formula year, at the prevailing prices, and up to the forecast supply level identified as being required through the Transporting Britain's Energy (TBE) process (as published in the Ten Year Statement (TYS)) then National Grid could over recover.
    - Day ahead daily entry capacity prices are discounted by 33% and within-day daily entry capacity prices are discounted by 100% under the prevailing methodology
  - The Peak Quantity of Entry Capacity Procured
    - The level of firm capacity procured ahead of the gas day is treated as TO revenue. Shippers are not booking up to the forecast supply level in the ten year statement ahead of the gas day.
  - The Annual Profile of Entry Capacity Procured
    - The level of capacity procured throughout the formula year relative to the peak level of capacity i.e. the extent of capacity profiling to meet gas flows. The Shipper's ability to buy capacity in daily and monthly quantities means that they can incur lower costs than buying quarterly capacity by profiling the capacity bought.
    - The capacity is essentially available 365 days per year and the availability of sub annual products may have the effect of commoditising capacity. If a shipper procures only a handful of days of capacity then the capacity charges will not reflect the annual costs incurred.

#### Solutions Identified by the Entry Charging Review Group

- 3.4. A number of potential proposals have been discussed by the ECRG; however, addressing the significant quantities of entry capacity auctioned at zero reserve price is seen as the priority.
- 3.5. This could be achieved by the removal of the firm entry capacity discounts and either placing a non-zero reserve price on interruptible capacity or revising the interruptible quantities made available and/or by only releasing interruptible when firm has sold out as a preferred option.

- 3.6. The review group requested that a charging methodology discussion paper be drafted to cover the removal of entry discounts as the first phase of a phased approach, which would also include the reduction in the quantity of interruptible capacity released.
- 3.7. Consideration of applying price multipliers to daily and monthly capacity has been discussed; however, there is much work to be done before multipliers could be agreed and the group view is that experience of a regime without discounts might better inform this work.
- 3.8. It is anticipated that price multipliers will be further developed within future ECRG meetings. Ofgem has requested that the review group also, include the consideration of the following areas within the review and it is planned that these will be covered at later meetings.
  - spare capacity
  - supply scenarios
  - a comparison with electricity transmission charging
  - the over and under recovery mechanisms
- 3.9. It is anticipated that the issue of incentivising the use of spare capacity at the expense of investment can only be addressed through the long term QSEC auctions, as these are the only auctions where obligated incremental capacity can be released and investment triggered.
- 3.10. Recent developments in electricity have focussed on changing generation (supply) scenarios and any analogous changes to the gas regime could be factored in through changes in inputs to the transportation model.
- 3.11. Recent development of the over recovery mechanisms has highlighted that the redistribution of over-recovery revenue based on capacity holdings may create perverse incentives to over procure capacity.
- 3.12. For the reasons stated above, National Grid believes that the areas identified by Ofgem can be assessed, discussed and potentially proposals brought forward that would be consistent with the removal of daily entry capacity discounts and limits on the availability of interruptible capacity.

### **Potential Solutions Discounted by the Entry Charging Review Group**

- 3.13. Consideration was given, by the ECRG, to three alternative solutions; introducing changes to the application of the TO entry commodity charge, changing the entry-exit revenue split within the charging methodology, and revising the capacity products made available.

#### Entry-Exit TO Entry Commodity Charge Application

- 3.14. Changes to the application of the TO Entry Commodity charge were suggested as a means of avoiding cross subsidies. Different TO Commodity charge rates would apply if gas flow allocations were against quarterly, monthly, or daily capacity. The rate for gas flow allocations against daily capacity would be higher than against monthly or quarterly to reflect the lower costs resulting from the daily capacity discounts.
- 3.15. This option was discounted because the intent was to overcome the discounts that apply to the entry capacity charges, recognising the clearing obligation. National Grid has identified that this option would have resulted in significant systems impacts in regard to the introduction of additional TO Entry commodity charges, charge types and invoicing processes.

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### Entry-Exit Revenue Split

- 3.16. Changes to the entry-exit revenue split within the Charging Methodology were suggested as a means of reducing the entry target revenue that the TO entry commodity charge would collect. If the entry-exit revenue split were changed from 50-50 to a lower entry proportion, a higher proportion would be recovered through administered exit capacity charges. If no changes were made to the derivation of entry capacity reserve prices, the TO Entry capacity revenue might be expected to remain unchanged with the TO entry commodity charge reducing. It should be noted that entry reserve prices are not adjusted for allowed revenue and simply reflect the long run marginal cost of providing capacity.
- 3.17. This option was discounted because it was felt that the requirement to increase exit capacity charges could not be justified on cost reflectivity grounds.

### Revised Products

- 3.18. Changes to the entry products made available were suggested as a means of increasing entry capacity revenue. This might involve replacing the quarterly product with an annual product and/or replacing the annual auction of monthly capacity with a further auction of quarterly capacity.
- 3.19. This option was discounted at this time because it was felt that a drive for European consistency may have the same impact and it was felt inappropriate to make changes that might be superseded by later European developments. It was also felt that changes to the QSEC auctions may be inappropriate due to the level of existing user commitment generated through this process.

## **Historical and Future Revenue Analysis**

- 3.20. Appendix A shows the impact that the removal of discounts would have had for the 2008-2009 formula year. This indicates that had the quantities of daily firm capacity been procured at the non-discounted reserve prices they would have resulted in £45m of additional revenue. Had the quantities of interruptible capacity been replaced with firm capacity then this would have resulted in a further £90m of revenue.
- 3.21. Clearly a change such as the removal of the zero reserved priced capacity would result in changes in behaviour and hence further analysis was carried out looking at gas flow allocations above capacity holdings. This indicates that, assuming each individual Shipper had procured only enough capacity to meet its gas flow allocations, an additional £71m would have been generated; however, this does not take into account shipper trading and the anticipated stimulus that the removal of discounts should have on the secondary capacity market. Perfect trading out of shipper positions and procurement of capacity to exactly meet gas flow allocations would have resulted in £3m of additional revenue.
- 3.22. Given a potential change in revenue of between £3m and £71m resulting from the removal of discounts, it would seem prudent to introduce this as an initial phase and assess the impact prior to introducing any further changes to entry reserve prices. Even if the impact were at the low end of the scale, removing discounts should prevent a greater reliance on daily capacity and would represent a necessary step prior to introducing further measures such as price multipliers.
- 3.23. Appendix B shows a forward looking analysis that indicates that the removal of discounts will have a modest impact over time in terms of increasing entry capacity revenue; however, the gap between entry capacity revenue and target entry revenue is not closed and hence further changes are likely to be required.

## Entry Capacity Substitution

- 3.24. Entry capacity substitution is the process of moving “non-incremental obligated entry capacity” from one or more ASEPs to meet the requirement for “incremental obligated entry capacity” elsewhere. The substituted entry capacity is assigned to the ASEP where additional capacity is demanded, in preference to creating additional capacity (“funded incremental obligated entry capacity”) which may require investment in new infrastructure. The “non-incremental obligated entry capacity” at an ASEP is made up of baseline obligated entry capacity for the ASEP plus (or minus) any entry capacity that has been substituted to (or from) the ASEP.
- 3.25. Going forward, entry capacity substitution may have the potential to increase the quantity of Non-incremental (TO) Obligated NTS Entry Capacity sold and hence may increase TO Entry Capacity revenue. Entry capacity substitution should, at least, help to maintain the quantity of Obligated NTS Entry Capacity released i.e. it might stop the release of “funded incremental obligated entry capacity” displacing the sale of “non-incremental obligated entry capacity”.
- 3.26. In addition, funded incremental obligated entry capacity that has been released in long term auctions from 2007 will be treated as non-incremental obligated entry capacity five years after this capacity is first released.
- 3.27. Revenue from the sale of “non-incremental obligated entry capacity” is treated as TO revenue, whereas revenue from the sale of “funded incremental obligated entry capacity” is treated as SO revenue.
- 3.28. The following table shows the impact that substitution might have on the TO commodity charge if 10 Mscm/d of incremental obligated entry capacity was released through substitution, and therefore treated as TO revenue (rather than investment, and treated as SO revenue) for each existing ASEP and booked for two quarters (6 months).

ASEP	Cost of 10 Mscm/d for 6 months/year	Impact on TO Commodity Charge (p/kWh/day)
AVONMOUTH LNG	£20,020.00	0.0000
BACTON TERMINAL	£1,781,780.00	-0.0002
BARROW TERMINAL	£360,360.00	0.0000
BARTON STACEY (MRS)	£20,020.00	0.0000
BURTON POINT TERMINAL	£20,020.00	0.0000
CAYTHORPE (MRS)	£2,082,080.00	-0.0002
CHESHIRE (MRS)	£20,020.00	0.0000
DYNEVOR ARMS LNG	£20,020.00	0.0000
EASINGTON&ROUGH TERMINAL	£2,242,240.00	-0.0002
FLEETWOOD (MRS)	£480,480.00	-0.0001
GARTON (MRS)	£2,542,540.00	-0.0003
GLENMAVIS LNG	£2,402,400.00	-0.0003
HATFIELD MOOR (MRS)	£900,900.00	-0.0001
HATFIELD MOOR (MRS)	£900,900.00	-0.0001
HOLEHOUSE FARM (MRS)	£20,020.00	0.0000
HORNSEA (MRS)	£2,162,160.00	-0.0002
ISLE OF GRAIN TERMINAL	£520,520.00	-0.0001
MILFORD HAVEN TERMINAL	£4,084,080.00	-0.0004
PARTINGTON LNG	£20,020.00	0.0000
ST_FERGUS_TERMINAL	£7,667,660.00	-0.0008
TEESSIDE TERMINAL	£2,062,060.00	-0.0002
THEDDLETHORPE TERMINAL	£2,302,300.00	-0.0003
WYTCH_FARM_TERMINAL	£20,020.00	0.0000

## Clearing Obligation

- 3.29. Currently, National Grid has a Licence reasonable endeavours obligation to make available capacity up to the defined Obligated NTS Entry Capacity level at each ASEP in a clearing allocation by the end of the Gas Day.
- 3.30. A clearing allocation is defined in the National Grid NTS Licence as:
- “in respect of a terminal and period an allocation of entry capacity which either:
  - results in all the capacity offered for sale being sold; or
  - has a reserve price of zero;”
- 3.31. The Licence states that this obligation should not “contravene the provisions of”...the Charging Licence obligations. The latter includes the requirements to ensure that reserve prices are set in a way that promotes competition, promotes efficient use of the system and avoids undue preference in the provision of transportation services.
- 3.32. In 2003, when zero reserve prices were introduced for within-Day firm capacity auctions, it was considered by Ofgem that there may be sufficient competition at the majority of large beach terminals to guard against revenue under-recovery. There was also an expectation that the majority of shippers’ entry capacity requirements would be procured well in advance of the gas day. Additionally it was considered that non-zero reserve prices might inhibit the release of NTS Entry Capacity and inhibit price discovery.
- 3.33. The 100% discount for interruptible prices (i.e. a zero price) increases the likelihood of additional capacity being released, where available, in the short term, and recognises the right of the system operator to curtail interruptible Entry Capacity on the Gas Day. It should be noted that NTS Interruptible Entry Capacity is made available only where there is an expectation (as defined in the UNC) that there may be unutilised firm NTS Entry Capacity on a gas day or at National Grid’s discretion.

## Licence and UNC Frameworks

- 3.34. Any change to NTS Entry Capacity reserve price discounts may need to be reflected in National Grid’s Gas Transporter Licence in respect of the NTS and may need to be reflected in the Uniform Network Code (UNC). Such changes would need to be progressed under separate governance processes to any Charging Methodology proposals.
- 3.35. The following aspects may need to be considered;-
- UNC references to applying a zero price in an entry auction
  - UNC calculation of the interruptible quantities released and the basis for such release
  - NTS Licence and UNC arrangements relating to the clearing obligation.
  - NTS Licence and UNC arrangements relating to the mapping of within-day obligated entry capacity to the SO price control and redistributing this revenue through the entry capacity neutrality mechanism.
- 3.36. A UNC proposal would need to be raised to remove the zero price references in regard to daily auctions.
- 3.37. Ofgem has stated in the ECRG meetings that, should a charging proposal that contravenes the clearing obligation be proposed and not vetoed, the granting of a Licence derogation in regard to the clearing obligation could be a short-term solution.

## Interruptible Quantity

- 3.38. The interruptible quantity is currently defined as the daily average unutilised firm capacity, referred to as the 'use it or lose it' (UIOLI) quantity, plus a discretionary amount of NTS Entry Capacity which National Grid determines.
- 3.39. The "daily average unutilised firm capacity" for each ASEP is the 30 day average amount by which the Firm NTS Entry Capacity exceeds the delivered quantities (calculated once a week using data 7 days prior to the calculation date i.e. utilising closed out data).
- 3.40. This calculation could either apply only when firm capacity has sold out and/or be modified.
- 3.41. The "daily average unutilised firm capacity" is referred to as the 'use it or lose it' UIOLI quantity as it was designed as an anti hoarding measure. The scenario where a small quantity of firm capacity remains unsold, and yet the UIOLI quantity implies unutilised capacity, would need to be avoided.
- 3.42. A detailed solution would need to be discussed and agreed within the UNC Transmission Workstream; however, this might involve;
- the UIOLI quantity at an ASEP being released only when a defined percentage of firm capacity had sold at the ASEP (e.g. 90%);
  - the UIOLI quantity at an ASEP being released only when it was in excess of the unsold firm capacity at the ASEP;
  - a modified UIOLI quantity equal to the difference between the prevailing calculation and the unsold firm capacity
- 3.43. Appendix C contains analysis of the impact of limiting the release of the interruptible quantity to those occasions at an ASEP when firm capacity had sold out or was close to selling out

## Further Options Considered by the Entry Charging Review Group

- 3.44. Shipper's ability to buy capacity in daily and monthly quantities means that they can incur lower costs than buying quarterly capacity even though the National Grid costs incurred in making available a level of entry capacity throughout the year will be the same irrespective of how the capacity is sold.
- 3.45. This issue could be addressed by applying price multipliers to the calculation of the daily entry capacity prices under the prevailing charging methodology such that prices were greater than  $1/365^{\text{th}}$  of the annuitised long run marginal cost (LRMC). This is equivalent to dividing the annual cost (the annuitised LRMC) by a duration of less than 365 days. This is not a new approach as a multiplier of 4, relative to the daily rate for annual capacity, was applied when daily entry capacity auctions were first introduced. The same approach could be taken for monthly capacity. This issue will need to be discussed further within the ECRG.
- 3.46. Given that quarterly capacity long term auctions cover a 15 year period, and that these auctions are the primary device for triggering incremental capacity, it might be viewed that QSEC capacity pricing should remain unaltered.

## Phased Approach

- 3.47. Through the ECRG meetings, Shippers have expressed a preference for a phased approach. This would allow the removal of entry discounts and a revised calculation of the quantity of the interruptible capacity made available to be implemented earlier than might otherwise be the case.
- 3.48. The impact of this first phase could then be assessed before further options, including the potential introduction of daily and monthly multipliers, were introduced as later phases if required. This would allow experience of the revised phase one arrangements to be taken into account when setting the values for price multipliers if this approach were taken.

3.49. Daily capacity price multipliers might represent part of the second phase with monthly price multipliers representing part of a third phase.

### **European Comparison**

3.50. Through the GTE tariff report published in 2005 it has been possible to compare NTS Entry Capacity tariff setting arrangements with our close European neighbours

3.51. In summary, based on the countries published within the GTE tariff report, the UK is the only regime where;

- firm capacity is released with a zero reserve price
- interruptible capacity is released with a zero reserve price while firm capacity remains unsold
- daily capacity costs less on a daily basis (p/kWh/day) than monthly capacity
- monthly capacity costs the same on a daily basis (p/kWh/day) as annual/quarterly capacity

3.52. Concerns have been raised within the ECRG that only releasing interruptible capacity when firm capacity has sold out may not be consistent with EU regulations; however, the obligation to release interruptible is in the event of contractual constraints and National Grid believes that this would not be the case if firm capacity remained un-sold.

### **Summary**

3.53. Removing daily discounts and introducing price multipliers such that daily and monthly prices are greater than 1/365th of the annuitised LRMC would make daily capacity more expensive than monthly capacity and monthly capacity more than quarterly capacity. Revisions to interruptible quantities would reduce the availability of minimal priced capacity. As a consequence;

- Capacity revenue would be increased, and hence the TO Entry Commodity charge rate should reduce.
- The incentives to procure further ahead of the day would be achieved without unduly affecting shipper's ability to procure capacity in shorter term auctions.
- Incentives to book longer term would increase and should incentivise security of supply

3.54. Removal of discounts and revisions to interruptible quantities/release rules could be introduced as the first part of a phased approach. This would allow experience of the regime to inform the introduction of further measures, including the potential setting of daily and monthly price multipliers, without introducing the risk of over recovery and price fluctuations.

## 4. Summary of Responses

- 4.1. National Grid NTS received 9 responses to its consultation on NTS GCD 08; 6 respondents expressed support, 2 were not in support of removing entry capacity discounts, and 3 were not in support of revising interruptible entry capacity release.
- 4.2. Copies of the responses have been posted on the Gas Charging section of the National Grid information website;

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

### Support for the Proposal

Respondent	View	Note
Exxon Mobil (EM)	Support	
Statoil (UK) Ltd (STUK)	Support	
Scottish and Sothern Energy (SSE)	Support	
British Gas Trading (BGT)	Support	
E.ON UK plc (EON)	Against	Not in support of changes to the firm daily entry capacity reserve prices or interruptible release.
Total E&P (TEP)	Support	
The Association of Electricity Producers (AEP)	Support	
EDF Trading (EDFT)	Against	Not in support of changes to interruptible release.
EDF Energy (EDFE)	Against	Not in support of changes to the firm daily entry capacity reserve prices or interruptible release.

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## Detailed Responses by Discussion Question

### **Q1. Whether the objectives of the review are appropriate, namely to identify any charging methodology and/or UNC modifications required to;**

- a. Continue to recover allowed revenue while achieving the NTS Licence and EU relevant charging objectives.**
- b. Maximise the proportion of NTS TO target entry revenue recovered through entry capacity charges.**
- c. Appropriately incentivise long term booking of NTS Entry Capacity.**
- d. Appropriately differentiate by price between the NTS Entry Capacity products made available.**
- e. Incentivise Security of Supply.**

#### Respondents Views (Q1)

“EM believes that the review objectives are appropriate. As a member of the ECRG EM recognises significant debate and discussion amongst the participating parties went into defining these objectives.”

“STUK have been active members of the Entry Capacity Review Group and as such support the objectives of the review believing that they are appropriate and correctly target the identified issue of auction over recovery and its impact on the TO commodity charge. “

“SSE agree that any proposed changes to how revenue is recovered should be in accordance with the NTS Licence and EU relevant charging objectives.” “SSE agree that proposed changes implemented through this review process should seek to maximise the proportion of NTS TO target entry revenue recovered through entry capacity charges.” SSE comments that “It would be advantageous to have long term bookings of capacity act as a guide to future system usage. However, SSE do not believe that it would be consistent to incentivise long term capacity bookings whilst simultaneously it is proposed that incentives to book short term capacity are removed.” “SSE do not support the current practice of discounting firm and interruptible day ahead and within day capacity products as it exacerbates the current under recovery.” SSE comments that security of supply can be incentivised “by removing the incentive for short term bookings“.

BGT “agree that the objectives of the review are appropriate. In particular we believe that maximising the proportion of NTS TO target entry revenue recovered through entry capacity charges ensures cost-reflectivity and also avoids any potential cross-subsidy between users of new incremental and existing obligated capacity. In the case of firm capacity users should be paying charges which are reflective of the long run marginal cost of capacity, this should also apply to capacity which is nominally interruptible but is effectively firm. Truly interruptible capacity should be made available at a reduced cost, which reflects the risk of interruption. In the case of new incremental capacity, much of which has been built in order to secure imported supplies, the present level of commodity charges acts as a deterrent to bringing supply to the UK market as compared with other competing markets. This consequence poses a potential threat to security of supply.”

BGT “believe that in order to enhance security of supply it is necessary to have a regime which is based on long-term firm capacity bookings, which give appropriate signals to National Grid with regard to requirements and expected flows. This will lead to greater certainty with regard to the actual landing of gas and may enable release of additional firm capacity which is physically available above obligated levels.”

BGT “believe that it is important to ensure that appropriate incentives for long term booking of NTS entry capacity are in place. Producers and importers need stability of capacity prices and appropriate incentives to match capacity bookings with their long-term plans. The current availability of large quantities of capacity near to the time of flow at zero reserve price provides the very opposite – a strong incentive not to book longer term capacity in advance.”

BGT comments that “The current regime does not appropriately differentiate by price between the NTS entry capacity products in that short-term capacity is available at less than 1/365th of the annual cost. Phase 1 removes this differential prior to reversing it in later phases.”

EON comments “An appropriate balance needs to be struck between incentivising long-term bookings and providing short-term flexibility for both incumbents and new entrants. Efforts to maximise long-term entry capacity bookings by incumbents runs the risk of reducing opportunities for new entrants to enter the market if capacity is wrapped up in long-term contracts.”

EON comments “It could also be argued that long-term entry capacity bookings do not necessarily improve security of supply since this may restrict the flexibility to flow gas, if short-term capacity isn’t available in the quantity required when needed. Access to short-term products is also critical for those Shippers who have a large or variable supply portfolio and who will be subject to within-day fluctuations in the size of their portfolio. This may be due to customer churn, electricity demand, weather, maintenance, etc. As a result, it is impossible even at the day-ahead stage for Shippers to know exactly what their capacity requirements will be. Moreover, pushing Shippers into procuring capacity purely on a long-term basis would force them to over-state their requirement (in order to manage risks), buying more than they need and sending an erroneous signal to National Grid of high demand, leading in turn to a network which is over-built and under-utilised.”

EON comments “The review process should also be conscious that not all Shippers operate in the same way and many may have based their business model on the current, established charging structure. Indeed, a reduction in the TO Commodity charge is not necessarily a benefit for all Shippers. For instance, those who wish to access the network only at times when this would not cause a cost to be incurred by NGG (such as marginal sources of supply) may be prevented from doing so under these proposals, due to the increased cost of doing so. In addition, it could be argued that a predominantly capacity-based charging structure would unfairly penalise those sites on the short-haul tariff, which have taken efficient decisions to locate close to large entry terminals, thereby reducing the potential size of the network and ultimately saving money for consumers. Due to the benefits they provide, these sites justifiably do not pay TO Commodity charges and therefore remain unaffected by the variable charge levels seen recently. Ultimately, if the regime were to become predominantly capacity-based, the short-haul tariff would become increasingly less attractive, potentially resulting in more inefficient bypass of the NTS.”

TEP “believe that the objectives of the review are appropriate. We believe that maximising the proportion of allowed revenue recovered from entry capacity sales rather than through commodity charges is particularly important. At the moment NG expects to recover 39% of allowed revenue for 2009/2010 from the sale of entry capacity whilst the remaining 61% will come from the application of the T.O commodity charge. We believe that this is a worrying sign. The T.O commodity charge was introduced as a corrective mechanism which would bridge the gap of any small under-recoveries, but has now become the vehicle through which most of the T.O revenue is collected.”

TEP comments “Removing the existing discounts will lead to charges paid by shippers being more accurate and cost reflective of their actual use of the system. It will also avoid the current situation where some shippers (who book entry capacity long term or new entrants) subsidise the use of entry capacity for other shippers (those who wait and buy at zero or discounted prices). Having all shippers pay a cost-reflective price for the capacity they use means NG avoids undue preference in the provision of transmission services which will help competition between existing shippers to the benefit of gas consumers.”

TEP comments “The objective of promoting long-term bookings was deemed controversial at the review groups organized by NG and Ofgem. Total E&P believes that there is benefit to promoting long term commitment from shippers, namely the accurate and efficient investment by NG. Over recent years Ofgem has highlighted their preference for shipper commitment and introduced licence changes to promote long term commitment by shippers (reduction of baselines, substitution, reduction of held back capacity from 20% to 10% etc.) In line with these it seems incoherent and perverse to maintain discounts on entry capacity prices closer to the flow date. “

TEP comments “It is crucial that those shippers who commit long term are not penalized for doing so, which is the problem of the current system. We believe that entry capacity prices should be cost reflective, and from NG’s presentations at the Workstreams we understand that currently this is not the case. Capacity is priced as an annuitized product and unless a shipper buys 365 days worth of capacity the cost-reflectivity requirement, which is also a Licence requirement, is not met. The problem is exacerbated in the short term auctions as they offer shippers the possibility to profile the capacity bought. Removing the discounts and allowing all capacity to be offered at the same reserve price at all auctions is certainly a step in the right direction, but from the Workstreams we understand that more will be needed in order to make charges truly cost-reflective.”

AEP “believe the objectives are appropriate but are multifaceted and interrelated and may not all be achievable simultaneously. The review should be mindful of the impact on the availability and cost of short term products and impact on the attractiveness of the short haul tariff, which if diminished could lead to by-pass of the NTS.”

EON comments “This review should also consider the impact of encouraging much more firm capacity to be bought and whether this will lead to more capacity buy-backs by National Grid. If all firm capacity is bought on the day, it leaves NG NTS less room to manoeuvre should flows need to be curtailed within-day. Interruptible capacity can, of course, be interrupted and provides significant flexibility for the system operator. Firm capacity cannot be easily (or cheaply) curtailed, with only potentially costly capacity buy-backs as the available tool for National Grid to manage flows at the affected entry point.”

### National Grid’s View

National Grid welcomes responses on the appropriateness of the review objectives. National Grid continues to believe that recovering fixed Transmission Owner (TO) costs from capacity charges is appropriate as the vast majority of the costs are associated with the NTS assets that represent transmission capacity. Increasing entry capacity revenue, and hence reducing the TO Commodity charge, should improve cost reflectivity and therefore remove potential cross subsidies. Appropriate price differentiation between the capacity products should increase capacity revenue and might also more appropriately incentivise longer term booking hence improving security of supply.

**Q2. Whether a phased implementation approach, as suggested by the ECRG, is appropriate, with;**

- a. Phase 1 comprising removal of entry capacity discounts and**
- b. limiting the release of interruptible capacity to when firm capacity has sold out or is close to selling out.**
- c. Phase 2 covering further changes in light of experience of phase 1 including the potential re-introduction of price multipliers for daily and monthly capacity.**

Respondents Views (Q2)

“EM is supportive of the phased approach given the uncertainty of the potential revenue impact of Phase 1 based on National Grid’s analysis showing a potential range of £3-71M. EM however does not believe there should be a significant delay in commencing with Phase 2 given that National Grid’s analysis indicates that Phase 1 will not be sufficient to close the gap between actual revenue and the revenue target and believe that price multipliers are a potential tool to close this gap.” “As to the content of Phase 1, EM is supportive of the removal of the entry capacity discounts and limitation of interruptible capacity until firm has sold out or is close to selling out.”

“As the Entry capacity process is already complex, STUK are in support of a phased approach to changes in the charging elements. The changes proposed in Phase 1 should be given time to be fully considered to enable the effects of the change to be fully assessed and to help preserve the stability of the regime. “ “The proposed ‘phase 1’ change, the removal of the entry capacity discounts received wide support at the review group and is seen as a sensible first step in encouraging long term entry capacity bookings. This combined with a limit placed on the release of interruptible capacity should go some way to decrease auction under recovery and inform the need for further changes that are to be developed in the future phases. “

“STUK believe that it is important for the phase 1 changes to be implemented by 01 October 2010 to allow full consideration and assessment by companies when making their purchasing strategy decisions for the February AMSEC and March QSEC auctions and agrees that a licence change will be required to allow implementation of this change. STUK welcome Ofgem’s suggestion that a derogation of the relevant clause could be given to allow implementation for October 2010 provided a UNC modification is raised within the appropriate timescales. “

“SSE is supportive of removal of entry capacity discounts and a phased approach.” “SSE is supportive of limiting the release of interruptible capacity to when firm capacity has sold out or is close to selling out.” SSE comments “The industry should await the change in behaviour and resulting revenue recovery before implementing phase 2.”

BGT “fully support the measures proposed in Phase 1. We believe, however, that these will only serve to stop the proportion of TO entry target revenue recovered through entry capacity charges from reducing still further. While we support a phased implementation approach we do believe that Phase 2, with measures designed to increase the entry capacity charge revenue to around [75%] and make the commodity charge more cost reflective should follow shortly after Phase 1 with a potential for further phases afterwards in order to bring capacity revenue more or less into line with target.”

EON does not support limiting the release of interruptible capacity to when firm capacity has sold out or is close to selling out. EON comments that “If these proposals were ever to be implemented, it would be critical to review “Phase 1” and see the actual impact on charges before considering adding multipliers into the mix. Otherwise there is a real risk of rapidly moving from under-recovery to significant overrecovery. It will also be necessary for the industry to re-consider the report for charging consultation PC 49 – “Prices for unsold monthly capacity and floor prices for daily capacity Auctions”, which considers in detail the arguments for and against multipliers in capacity auctions.”

TEP “believe that the removal of entry capacity discounts and the limited release of interruptible capacity are changes long overdue and urgently needed. Once this is in place we should start looking at the introduction of multipliers, always in line to achieve cost reflectivity, efficiency and competition amongst shippers.”

AEP “would support a phased approach with sufficient time between stages to fully assess the impact the change has had, we anticipate this may be more than a year rather than a few months. We consider that any reforms should be mindful of progress on EU framework guidelines for capacity allocation and tarification and comitology proposals for congestion management. These could impact the UK arrangements in 2011. Whilst some of these changes may only apply at congested interconnection points, consideration would need to be given as to whether all entry points should have similar products and charging principles or whether potentially different rules could apply at interconnection points and other points. This may be particularly relevant in relation to price multipliers, since ERGEG’s current proposals do not favour these.”

#### National Grid’s View

National Grid welcomes responses on the proposed phased approach. National Grid recognises the concerns of Users in regard to commercial changes and believes that a phased approach may mitigate the risk of unforeseen circumstances. Experience of a regime without capacity discounts should allow an opportunity to assess the effects of change and ensure more appropriate parameter setting should price multipliers be re-introduced.

National Grid remains concerned that, in the absence of effective competition, the prices paid for on the day capacity have not been reflective of the costs incurred. National Grid recognises that a key reason that shippers leave a proportion of their capacity procurement until the day or day-ahead is to manage volume risk efficiently and economically, but believes that this is not a justification for the discounts applying and suggests that the removal of discounts should not have a negative effect on the availability of daily capacity.

The question that arises is; if the discounts were to be removed, would payments based on a limited number of days of procurement reflect the costs incurred in making the capacity available? While removing discounts should at least stall the increasing TO commodity charge, National Grid believes that it is not a solution in itself but does represent a necessary step prior to further changes.

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**Q3. Should the 50-50 entry-exit TO revenue split within the Charging methodology be retained or should an increased proportion be allocated to exit with a reduced proportion for entry?**Respondents Views (Q3)

“EM would be supportive of further analysis to determine whether this is an appropriate measure to address the issues of the current charging regime but does not see any justification for change based on the information in the current discussion document.”

“SSE is opposed to changing the 50-50 entry-exit TO revenue split. No information has been presented to demonstrate that any change to the proportion of revenue recovery from entry or exit would be more cost reflective.”

BGT “believe that the 50-50 entry-exit TO revenue split is the most cost-reflective approximation. We have not seen any compelling evidence to suggest that this is not the case.”

EON comments “The current split should be retained. Altering it would result in unfair cross-subsidies by exit to entry Shippers.”

TEP “believe that there is merit in the current arrangement, and any change would need to be widely discussed with the exit shipper community. The current review has focused on entry capacity prices and for this reason exit shippers may have not been much involved.”

AEP “cannot see a robust case for changing this revenue split. Any increase in the exit proportion would simply increase costs to customers without improving cost reflectivity of the charges. “

National Grid's View

National Grid welcomes responses on the entry exit split. National Grid agrees that there is little evidence for changing the prevailing value. National Grid recognises that a lower entry-exit split may well reduce the level of the TO Entry Commodity charge but would not address the concerns in regard to the existence of cross subsidies. Increasing the proportion of TO Revenue recovered through exit capacity charges may have unforeseen circumstances in terms of exit user commitment and potential by-pass of the system.

**Q4. Should the TO Entry Commodity charge continue to apply uniformly to all entry gas flow allocations excluding storage and “short-haul”?**Respondents Views (Q4)

“EM would be supportive of further analysis to determine whether adjustments in this area would be an appropriate measure to address the issues of the current charging regime but does not see any justification for change based on the information in the current discussion document.”

SSE comments that “it is important that storage and “short-haul flows are excluded from TO commodity charges. To impose TO commodity charges on storage injections and withdraws would be to double charge as the gas has already entered/exited the NTS. To impose the charge on shorthaul usage would disincentivise the use of shorthaul and ultimately increase SO commodity costs to all users.”

BGT “believe that the option to vary commodity charges between ASEPs deserves further consideration as part of the Phase 2 package of measures. We believe that there may be scope for improved cost reflectivity without undue complexity.”

EON “see no reason to change. There are very valid reasons for continuing to treat storage and ‘short-haul’ differently, as explored in detail in recent NTS charging consultations.”

TEP comments “This may be an opportunity to review the application of the T.O commodity charge, and understand if it is suitable to have storage and short-haul flows excluded. We certainly want to move away from a system that allows some shippers to obtain capacity for free on the day and also benefit from being” exempt “of paying the T.O commodity charge, whilst other shippers are making long-term commitments, paying full price, providing NG with investment signals and paying T.O commodity charge. Promoting cost-reflectivity and competition is paramount.”

AEP agrees that the TO Entry Commodity charge continue to apply uniformly to all entry gas flow allocations excluding storage and “short-haul”. AEP “understand the concept of charging different TO commodity rates depending on whether gas flows against long or short term capacity, but think this would be complex to implement and would not actually address the original under-recovery issue. “

### National Grid’s View

Entry commodity charges are not levied on storage flows as gas entering NTS storage facilities will already have attracted the NTS Entry Commodity charge, and gas leaving NTS storage facilities will eventually attract the NTS Exit Commodity charge. The NTS Optional (“Short-haul”) Commodity charge was designed to avoid inefficient by-pass of the NTS which represents a benefit to all consumers. Storage and short-haul flows avoid the costs associated with under recovery, through avoidance of the TO Entry Commodity charge, and equally avoid the benefits of over recovery, through the Entry Commodity rebate and credit mechanisms.

For these reasons, National Grid believes that the NTS Entry Commodity charging arrangements are appropriate provided that the level of the charge can be reduced via appropriate increases to NTS Entry Capacity revenue. If the TO Entry Capacity charges recover the costs associated with capacity provision, the TO Entry Commodity charge should recover the non-locational TO costs.

## **Q5.Should the prevailing quarterly, monthly and daily entry capacity products, auction timings, and auction frequencies be changed or reviewed?**

### Respondents Views (Q5)

“EM sees no reason to change the existing entry capacity products, timings and frequencies, but to focus the review on the pricing of the relative products. “

SSE do not consider a review of auction timings, and auction frequencies to be necessary at this time.

BGT “believe that the current products, timings and auction frequencies are appropriate although additional products such as annual firm or tiered interruptible should not be ruled out. We believe that it is important to retain the ability for shippers to tailor their capacity requirements to their anticipated gas flows and that it is possible to do so while maintaining long-term signals and maximising revenue recovery through capacity charges.”

EON comments “if these proposals were ever to be implemented, additional within-day auctions for firm capacity must be introduced.”

TEP “believe that the availability of auctions works well and we believe in the benefit of phased change, so focusing on the pricing is the best way forward.”

AEP comments “It may be appropriate for there to be more opportunities to secure daily capacity if a regime was implemented that limited the release of interruptible capacity to when daily firm had sold out or nearly so. In addition these parameters may need to be reviewed in the future for consistency with EU legislation. “

EON comments “Currently, National Grid is only obliged to hold one within-day auction (but more at their discretion). To minimise risks, Shippers typically over-buy firm capacity, as there will be no further opportunities to buy this capacity within-day and will generally pay zero (or near zero) for the entry capacity. But if Shippers would have to pay the full reserve price, they wouldn’t want to over-buy due to the cost, but are then exposed to within-day changes in their portfolio and the risk of holding insufficient entry capacity to meet their needs. On top of this, at least initially there will still be the opportunity to buy interruptible capacity with a zero reserve price. However, the proposed changes are likely to reduce the amount of interruptible capacity available, given that National Grid is obliged to release it based on the average unused capacity over a 30-day period. As noted above, Shippers typically buy a lot more within-day firm capacity than they need, so this feeds through into a large amount of interruptible capacity being released. However, going forward Shippers will only want to cover their expected flow, so interruptible capacity will be much more limited. Combined, both of these changes are likely to increase Shipper risks if more opportunities are not provided to obtain capacity within-day in order to efficiently manage daily portfolio changes.”

EONs “strong opposition to these proposals would only be moderated if there is a much more active within-day market and/or secondary trading of capacity. To achieve this, National Grid would need to play a facilitation role, introducing as a minimum, more within-day auctions for capacity. This measure would significantly help manage risk and costs for portfolio Shippers. For clarity, we believe this measure would need to be in place, before any of the charging proposals were to be implemented. For clarity, we would also not be content with rules that gave NG discretion to release capacity more often (as is the case now) – it is certainty that Shippers need that capacity will be made available through an established process, which must be codified in the UNC.”

#### National Grid’s View

National Grid welcomes responses on this topic. National Grid believes there may be advantages in an annual product in terms of price setting stability and cost reflectivity; however, European consistency may be the more appropriate driver for any potential capacity product changes.

National Grid believes that there is sufficient flexibility within the prevailing commercial arrangements for more frequent within-day capacity auctions and National Grid will look to clarify the arrangements as part of the UNC Modification Proposal process.

#### **Q6. Removal of Discounts**

- a. Should the discounts that apply to day-ahead (DADSEC) firm daily entry capacity be removed?**
- b. Should the discounts that apply to within-day (WDDSEC) firm daily entry capacity be removed?**
- c. Should a revised calculation for day-ahead (DADSEC) and within-day (WDDSEC) firm daily entry capacity apply such that both prices (p/kWh/day) are equal to the rolling monthly auction reserve prices?**
- d. Should the zero reserve price that applies to daily Interruptible entry capacity (DISEC) be retained?**

#### Respondents Views (Q6)

“EM believes that to help correct the issues addressed earlier in this response associated with the current high TO commodity charges, the DADSEC and WDDSEC entry capacity discounts should be removed and both prices should be equal to the rolling monthly auction reserve prices.”

“EM sees a need to distinguish the pricing between firm and interruptible products but sees a 100% discount or zero reserve price for interruptible as being an excessive reduction versus the firm capacity price. This will always create a shipper incentive to purchase interruptible capacity and may have a corresponding impact on TO capacity revenue. This could be resolved by keeping a discount but reducing the amount of the discount. It can also be addressed through the limitation of the interruptible quantity as outlined in Q7 below. Clearly a lower, even zero, price for interruptible release may be possible where firm has fully sold out but if interruptible release is made when firm has not quite sold out then a non zero price at some level is appropriate. “

SSE support the changes to firm entry reserve prices. SSE do not believe the zero reserve price that applies to daily interruptible entry capacity (DISEC) be retained.

BGT comments “All of the discounts serve to perpetuate the incentive for behaviour to secure capacity at a price below the true cost, without any risk of capacity not being available. We believe that all of the measures a, b and c listed above should be applied. We also believe that there may be a case for either applying a non-zero reserve price to DISEC capacity or introducing additional tiers of interruptible capacity. These products with different risks of interruption should be considered as part of Phase 2.”

EON believes the DADSEC and WDSEC discounts should be retained and the zero DISEC price should be retained.

TEP comments “Discounts should be removed from all auctions and reserve prices should be equal at all auctions for firm entry capacity.”

TEP comments “Interruptible capacity prices should indeed reflect the risk of interruption, and if there are still substantial amounts of firm entry capacity unsold we do not believe interruptible capacity should be released at a discount as this would not be cost reflective or promote competition. Only if firm capacity is sold out and there is a risk of interruption should interruptible entry capacity be priced at zero.”

AEP “believes that the discounts for firm capacity products should be removed, therefore setting the price for daily firm capacity, whether that is within day or dayahead at the reserve price for the monthly product. With respect to the daily interruptible reserve price, this is less clear and may be addressed by revising the circumstances in which daily interruptible capacity is released. It may not be prudent to change the price and quantity at the same time.”

EDFT comments “It is important that shippers have the ability to efficiently manage their risk exposure. Removing the discounts for day ahead and within day firm capacity will restrict shippers’ options which coupled with the likely reduction in available interruptible capacity will force them into long term capacity commitments. “

### National Grid’s View

National Grid believes that the Daily NTS Entry Capacity reserve price discounts are a contributory factor to the high TO Commodity charge and hence should be removed. While the removal of discounts may not be a solution to high commodity charges in itself, National Grid believes that removing the discounts is a necessary step prior to introducing subsequent changes. National Grid also believes that the discounts disincentivise longer term booking and hence user commitment and undermine the secondary entry capacity market.

National Grid recognises that the process for calculating the volume of “use it or lose it” interruptible capacity might suggest that interruptible Entry Capacity should be zero priced to avoid double charging. The “use it or lose it” quantity relates to un-utilised sold firm capacity which has, by definition, already been paid for. The issue remains that procuring interruptible capacity when firm remains unsold, which might be the case if the firm discounts were removed, would effectively lead to the interruptible capacity being firm.

## Q7. UNC Changes

- a. **Should the calculation of the Daily Interruptible NTS Entry Capacity quantity released be reviewed?**
- b. **Should Daily Interruptible NTS Entry Capacity at each ASEP be limited to when the firm entry capacity at the ASEP has sold out or is close to selling out?**
- c. **Should the revenue from the sale of within-day obligated NTS Entry Capacity continue to be redistributed via the entry capacity neutrality mechanism?**

### Respondents Views (Q7)

EM “believes that for the removal of entry capacity discounts to have the desired impact of increasing capacity revenue there have to be changes to the calculation of the Daily Interruptible quantity to limit the amount released EM is supportive of limiting this quantity until the firm entry capacity has sold out or is close to selling out. With regard to the latter, the discussion paper makes reference to potentially using a figure of 90% of firm capacity sold before interruptible quantity is released. EM would be supportive of this figure as a starting measure with the aim of reviewing potential impacts on capacity revenue versus a 100% case, assuming enough information is available, after implementation as part of Phase 2 of the review. “

“EM believe it is appropriate for revenue from the sale of within-day obligated NTS Entry Capacity to continue to be redistributed via the entry capacity neutrality mechanism to continue to create an incentive for National Grid to release as much capacity as possible.”

SSE agree that Daily Interruptible NTS Entry Capacity at each ASEP be limited to when the firm entry capacity at the ASEP has sold out or is close to selling out . “SSE believe that the revenue from within day obligated capacity sales should feed through to TO capacity revenue and not via the current SO commodity neutrality mechanism.”

BGT “believe that the calculation of the Daily Interruptible NTS Entry Capacity quantity released should be reviewed. The current method of calculation based on the usage in previous days leads to the situation where on some days insufficient interruptible capacity is released while on other days excessive amounts are released. In a situation where firm capacity is not available, the amount of interruptible capacity released should reflect the physical capacity.”

BGT “believe that at each ASEP individually this capacity should only be released when the firm entry capacity at the ASEP has sold out or is close to selling out. In principle we would support UNC modifications designed to implement this change.”

BGT “do not believe that the revenue from the sale of within-day obligated NTS Entry Capacity should continue to be redistributed via the entry capacity neutrality mechanism by default (see the answer to question 8b below). It may, however, be appropriate to redistribute this revenue via entry capacity neutrality if TO revenue is in over-recovery.”

EON does not support limiting the release of interruptible capacity to when firm capacity has sold out or is close to selling out. EON comments that the entry capacity neutrality mechanism “is the most appropriate means, but it should be recognised that removing the discounts is likely to result in a substantial increase to the already generally positive smear that takes place each month, inevitably benefitting those with the greatest share of neutrality.”

TEP comments “the release of interruptible capacity should be reviewed and interruptible capacity released only when most firm has sold out.”

AEP agree that the calculation of the Daily Interruptible NTS Entry Capacity quantity released should be reviewed and comment that limiting release to when firm is near to selling out “is an option, but will need to be compliant with EU legislation.” AEP does not believe that the revenue from the sale of within-day obligated NTS Entry Capacity should continue to be redistributed via the entry capacity neutrality mechanism.

EON comments “Traditionally, capacity has been offered to Users on an interruptible basis on the understanding that a contribution towards fixed costs of running the system is made. Interruptible services perform a vital role, allowing network usage to be increased in days where there is spare capacity. Therefore, if interruptible capacity can be made available with no impact on the network then it should be released; otherwise there may be accusations of NGG withholding potential network capacity. In a report by NERA for the Gas Forum – “Review of the Proposed Gas Exit Arrangements”, it is further noted that: *‘Interruptible service allows users to gain access to capacity even if they place a relatively low value on the capacity and would not be willing to pay much more than the operating costs of using it. A tariff policy that removed this possibility would discourage low value users... These users would be prepared to pay for operating costs and make a small contribution towards the fixed costs of investment, but may not be prepared to pay the full costs of capacity. Discouraging such users from using the network would lead to reductions in network utilisation and consumer welfare.’*

EON comments that “Fundamentally, ‘firm’ and ‘interruptible’ capacity are different services and should both be made available at the same time: release of one should not be contingent on the other. If it were, there is a risk of discouraging so-called “low value” users from potentially accessing the system, since the cost of doing so would be much more, if full reserve prices for daily auctions are imposed.”

EDFT “do not support the proposed changes outlined in GCD 08. There is a significant risk that the proposals will lead to an inappropriate balance between short and long term capacity products. Access to short term capacity is crucial to the effective operation of the traded market – and although we recognize the need to ensure National Grid receives appropriate investment signals – this should not be at the detriment of shippers ability to effectively and efficiently manage their portfolios (both long and short term).”

EDFT comments “Availability of short term capacity products is an important contributing factor to ensuring security of supply. Shippers must be able to retain flexibility to secure capacity to flow gas in response to short term market factors including weather, gas supply disruptions and unplanned transmission network/storage/interconnector availability. It would be inefficient to push shippers into securing long term capacity to cover all of these risks as they would be likely to secure more capacity than needed – therefore providing distorted investment signals to National Grid.”

EDFT comments “Restricting short term capacity products would also have a significant impact on liquidity in the UK wholesale market by preventing shippers from trading shorter term products. The UK currently has the most liquid gas market in the EU and we should not be pursuing measures that will severely restrict its development. Many new entrants to the UK gas market do not necessarily want to commit to long term capacity products and these proposals could also raise barriers to entry.”

### National Grid’s View

National Grid welcomes responses on this topic. National Grid does not believe that the proposals would unduly restrict the availability of short term capacity products. Placing a reserve price on the within-day Daily NTS Entry Capacity product would remove an incentive to over procure leaving sufficient capacity for those that value the product. Daily Interruptible NTS Entry Capacity would still be available in the event that insufficient firm could be procured i.e. if firm capacity has sold out or is close to selling out.

As previously stated, National Grid recognises that the process for calculating the volume of “use it or lose it” interruptible capacity might suggest that interruptible Entry Capacity should be zero priced to avoid double charging. The “use it or lose it” quantity relates to sold un-utilised firm capacity which has, by definition, already been paid for. The issue remains that procuring interruptible capacity when firm remains unsold, which might be the case if the firm discounts were removed, would effectively lead to the interruptible capacity being firm. In order to take into account this scenario, the release of interruptible capacity could be restricted until all firm capacity was sold, which could be achieved via a UNC change rather than a Charging Methodology change. This issue is being progressed via the UNC Transmission Workstream. Should the volume not be limited, it has been identified that applying a non-zero reserve price to Daily NTS Interruptible Entry Capacity could provide a comparable solution.

## **Q8. Licence Changes**

- a. Should the Licence clearing obligation be removed?**
- b. Should the revenue from the sale of within-day obligated NTS entry capacity continue to be treated as SO revenue or should it be treated as TO**

### Respondents Views (Q8)

“EM believes that the License clearing obligation should be removed, as currently this is a principle reason for the zero reserve prices and subsequent revenue under recovery causing the issues described above.”

“EM believes that the revenue from the sale of within-day obligated NTS entry capacity should be treated as TO revenue and is supportive of the solution proposed in section 3.38 to manage the transition from TO to SO as an interim solution.”

“SSE believe that all capacity should be offered for sale but not that it necessarily must be offered for sale at zero price. Clearly as less gas is available from the UKCS some ASEPs will never be sold, even at a zero price. Better that the obligation forces NG NTS to make the capacity available at a non-zero price.”

“SSE believe that the revenue from capacity sales should feed through to TO capacity revenue and not via the current SO commodity neutrality mechanism.”

BGT “believe that the Licence clearing obligation should be removed and that all the revenue from the sale of within-day NTS Entry Capacity up to the obligated baseline should be treated as TO revenue by default. If, however, the TO revenue is in over-recovery then it may be appropriate to treat this revenue as SO or incentive revenue.”

EON comments “If it is agreed that removing the discounts is the right thing to do, then it is our understanding that this would be required to avoid NG NTS breaching its Licence.” EON see no reason why the sale of within-day obligated NTS entry capacity “should be treated as anything other than SO revenue. Any change would be an arbitrary re-distribution of funds.”

TEP “believe that many of the recent changes introduced by Ofgem (substitution, baselines reduction etc) make the existing Licence Clearing Obligation on NG clearly incoherent with the rest of the UNC/Licence entry capacity framework.” TEP “are confident that implementation of the discussed measures would better facilitate the Licence Objectives of achieving cost-reflectivity, promoting efficiency and avoiding undue preference. “

AEP agree that the clearing obligation should be removed. AEP comments that; “many of the assumptions that led to this being incorporated in NG’s licence have with the benefit of hindsight not worked out as anticipated“. AEP “consider that revenue from obligated capacity should be considered as TO rather than SO revenue, and that this would help to address the under-recovery of revenue.”

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## National Grid's View

National Grid welcomes responses on this topic. National Grid believes that the removal of the clearing obligation is a necessary step towards reducing the TO Entry Commodity charges and hence removing potential cross subsidies and incentivising security of supply through creating appropriate incentives to book longer term and create market signals for capacity as required.

The treatment of revenue from the sale of within-day obligated NTS Entry Capacity as TO revenue would be consistent with all other NTS Entry capacity auctions and would also be comparable with the proposed treatment of Daily Exit Capacity.

### **Responses on the Issues with the Current High TO Commodity Costs**

Ofgem requested views on the issues associated with the current high TO Commodity costs.

“Consistent with the views of National Grid as detailed in section 4.4 onwards in the discussion document, EM see two key concerns with the current high TO Commodity costs:

- i) **Price Predictability:** A key desire for EM as a gas shipper is to have Transportation costs predictability. The current model in the UK with a high proportion of commodity costs with significant potential variation year on year does not provide that predictability.
- ii) **Cross Subsidies within the system:** As National Grid highlight in section 4.14-4.17, the effect of the current system is leading to shippers increasingly purchasing capacity at discounts leading to increasing commodity costs to manage revenue under recovery and allow National Grid to meet revenue targets. This is causing purchasers of long term capacity to effectively pay twice for capacity and leads to a cross subsidy within the system which is an unwanted consequence of capacity discounts “

STUK comments “As the steadily increasing TO commodity charge, used to collect revenue under recovered at the auctions, is applied to the volumes of gas flowed, those shippers that have purchased long term capacity and are then subject to the TO commodity charge are in effect paying twice for NTS Entry capacity. “

EON “believe it is appropriate for the industry to consider ways in which an increasingly volatile TO Commodity charge level can be reduced (or better managed), although ultimately it should be recognised that fluctuating commodity charge levels are an inevitable outcome when auctions are used to collect fixed allowed revenue. This issue is simply an illustration of the inefficient nature of auctions and it is not inconceivable that in a few years we will be considering ways to better manage over-recovery by National Grid!” EON comments “It is worth noting that the volatility in TO Commodity charge is not necessarily a problem, provided the level can be accurately predicted, so that measures can be put in place to deal with it. It is predictability not less volatility which is the most important outcome when setting transportation charges.”

AEP “notes that the variability in the TO commodity charge arises from the auctioning of entry capacity as a way of recovering fixed allowed revenues, therefore it is inevitable that the charge will be volatile. It may also be the case in the future that changes to other aspects of the regime, possibly prompted by EU legislation, lead to the return of an over-recovery situation. However AEP considers that reducing the TO commodity charge would reduce the amount of revenue being collected through non-cost reflective commodity charges, these charges are not directly set via an auction and therefore should be cost reflective, which is not the case. It could also be argued that reducing the TO commodity charge could help to avoid the potential for cross-subsidies between long term and short term capacity holders and firm and interruptible capacity holders. Such cross subsidies could also have detrimental effects on competition and suppress incentives to secure long term capacity which may be at odds with the aspect of the EU Gas Regulation that suggests tariffs should take into account the need for system integrity and improvement and provide incentives for investment. Alongside this we are also mindful that the availability of some short term products at relatively low costs can promote security of supply and enable effective management of supply portfolios.” AEP comments “It would also be the case that any reduction in commodity charges would be achieved by an increase in revenues being recovered through capacity charges which we believe is a more appropriate way of recovering fixed costs.”

TEP Comments “For the past eight years we have seen National Grid (NG) face T.O under-recovery year on year due to weak participation in the longer term auctions. We see shippers at certain entry points buy substantial amounts of capacity on the day-ahead and within day auctions, forcing NG to apply ever increasing TO Commodity Charges to compensate for the under-recovery, with the added problem that this charge is smeared across all shippers leading to cross-subsidies amongst shippers and the dilution of cost-reflectivity. “

TEP “supports the principle of a national transmission network which is appropriate to demand for entry capacity and which is run in a cost efficient manner. To this end we support the objective of having user commitment as a signal for future capacity requirements. We are concerned that the current entry capacity charging mechanism does not encourage shippers to make long term commitments for entry capacity, thus providing the necessary investment signals to NG, and instead incentivises shippers to wait for the short-term auctions where they can buy capacity at zero or close to zero reserve prices. “

#### National Grid's View

National Grid welcomes responses on this topic. National Grid continues to believe that the high TO Entry Commodity charge represents a potential cross subsidy which should be removed to better facilitate competition and be more consistent with EU directives.

### **Responses on Consistency with European Legislation**

EON comments “Limiting the release of interruptible capacity is inappropriate. This review needs to take into account the recently published ERGEG Capacity Allocation Guidelines (Capacity Allocation on European Gas Transmission Networks, Pilot Framework Guideline, Ref: E09-GNM-10-05, 10 December 2009) and whether proposals being advanced here are entirely compatible with the new requirements. The following excerpts of the guidelines should be examined further:

*“Network codes shall foresee that transmission system operators offer firm and interruptible capacity at any interconnection point in both directions; at unidirectional points.”*

And

*“Registered network users are entitled to submit nominations on an interruptible basis at any time. This entitlement shall not restrict the allocation of firm capacity by transmission system operators.”*

And

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*“The network code shall set out the procedures followed by transmission system operators to offer all available capacity in a transparent and non-discriminatory manner as firm and interruptible long and short-term capacity products.”*

It could be argued that only offering interruptible capacity once firm has sold out would not be compatible with these guidelines since it would not allow Shippers to “submit nominations on an interruptible basis at any time” – only once firm capacity is sold out.”

EDFT “do not agree that the release of interruptible capacity should be limited. We believe the proposals outlined in GCD 08 are inconsistent with the views of ERGEG as outlined in Pilot Framework Guidelines for Capacity Allocation. The UK cannot pursue proposals which will be out of line with the approach being taken across the rest of Europe and as envisaged by the recently agreed Third Energy Package of legislation. If interruptible capacity can be made available without restricting the allocation of firm capacity then National Grid should, given its obligation to operate an efficient network, be maximizing its availability. It should not wait until all firm capacity has been allocated before releasing interruptible products – as they are essentially different services and will be used by different shippers in different ways.”

EDFT comments “The proposed changes in GCD 08 will create an artificial long term capacity market which is simply not consistent with the way in which the wholesale market operates. The proposals would have a negative impact on the efficiency of the UK market; would restrict the integration of the UK market with other gas markets; and is inconsistent with the path that new EU legislation is taking. On this basis, we see no justification for these changes to be implemented.”

#### National Grid’s View

It should be noted that the E09-GNM-10 suite of documents are focusing on arrangements at interconnectors only, and not all entry points. It should also be noted that the views in relation to charging in these papers are initial views and it is intended that the charging issues will be subject to further significant review and development. ERGEG has announced that a specific charging Framework Guideline will be developed later this year.

### **Responses on the Relevant Charging Objectives**

“EM shares the views of National Grid in that the proposed changes will meet the Charging Objectives by leading to improvements around the key areas around Cost Reflectivity, Promoting Efficiency and Avoiding Undue Preference versus the existing charging regime.”

“As a major importer of natural gas to the UK, Statoil (UK) Ltd (STUK) is interested in the maintenance of a stable, efficient and economic entry capacity regime.” “STUK believe that the current Entry Capacity charging arrangements create perverse incentives for the booking of capacity, by effectively disincentivising long term commitments in favour of purchasing capacity at discounted rates in the shorter term auctions. Those shippers that choose to purchase long term capacity at existing ASEPs and so provide the long term investment signals needed by National Grid to enable them to effectively plan and manage the system, cross subsidise those players whose choose to purchase capacity only in the short term auctions. “

STUK comments “At a time when system investment is high on the agenda, care needs to be taken that the regulatory regime does not create barriers to entry and remains as stable as possible.”

“SSE is supportive of this review. We believe that TO capacity revenue should be recovered through capacity charges and that under recovery of capacity charges should not be commoditised as this is not cost reflective. The current under-recovery of £180 m from allowed revenue of £293 m, acts as a barrier to new entrants because they have to pay commodity costs in addition to capacity costs. Whereas, Users of existing entry points could only pay TO commodity costs. This could be considered to be discriminatory and will act as a barrier to new importation and storage projects, adversely impacting on security of supply.”

BGT “fully supports the work which has been done to date by the Entry Capacity Charging Review Group and the changes proposed in Phase 1 but believes that these represent a first step towards meeting the objective of minimising the proportion of the TO Entry allowed revenue collected through commodity charges. We are of the view that the current charging structure leads to high and volatile commodity charges, which in turn lead to revenue recovery being far from cost reflective. In this respect National Grid Gas is consistently failing to meet an important licence objective.”

TEP Comments “After participating actively in the Discussion Workgroups set up at Ofgem during 2009 and 2010 we believe that the most reasonable step towards tackling these problems is to remove the existing discounts on short term auction entry reserve prices and the Licence Obligation on NG to offer capacity at zero reserve price on at least one clearing auction. Taking this first step could help to:

- Stop cross subsidies between shippers and promoting competition,
- Have cost reflective prices,
- Avoid undue preference in the supply of transportation services by NG,
- Complying with EU Regulation 1775/2005”

### National Grid's View

#### ***Cost Reflectivity***

The National Grid NTS Licence states that where transportation prices are not established through an auction, prices calculated in accordance with the methodology should reflect the costs incurred by the licensee in its transportation business. Where prices are established by means of auctions, either no reserve price is applied or 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.

If NTS Entry Capacity auction reserve prices are not set on a cost reflective basis, through the application of discounts, the costs not collected through the auction process will be collected through TO Entry Commodity Charges. This raises the issue that if prices established through auctions are not cost reflective then TO Entry Commodity Charges may not be cost reflective.

Removal of discounts, in combination with the application of the Gas Charging Transportation Model, should mean that the costs incurred in making transportation capacity available at an ASEP would be recovered through Entry Capacity charges levied on capacity holders at the relevant ASEPs. TO Entry Commodity Charges could be reduced and hence charges overall would be more cost reflective.

#### ***Promoting Efficiency***

##### Investment Signals

National Grid believes that current discounts for short term NTS Entry Capacity at existing entry points might disincentivise Users to procure entry capacity in longer term auctions.

##### Stability

Discussions within the Gas TCMF have indicated that stable, or at least predictable, prices are preferable. National Grid is concerned that the desire for stable and predictable prices may not be fulfilled by discounting capacity prices in the short term.

Discounted or zero short term reserve prices may seem attractive when capacity is perceived to be in plentiful supply, but can lead to high and unpredictable capacity prices when that same capacity becomes scarce.

National Grid believes that when capacity becomes constrained at an entry point, where previously there was a perception of surplus capacity, and where long-term signals for incremental capacity investment have not been received from QSEC auctions, high and volatile prices and more frequent scale back of interruptible will be observed until incremental capacity is signalled and provided.

### ***Avoiding Undue Preference***

#### Potential Cross Subsidies

Potentially, Shippers have an incentive to 'wait and see' due to entry capacity price discounts on day ahead (33%) and within-day (100%) auctions. Any shortfall in the recovery of revenues by National Grid through entry charges is picked up through the Commodity Charge paid by all shippers. This could mean that short term capacity buyers are having their costs paid by shippers who have previously paid the longer term rate for capacity.

It could be argued that this creates;

- cross subsidies between shippers who buy long term rather than short term,
- cross subsidies between shippers who buy firm rather than interruptible,
- interruptible capacity that is effectively firm if firm capacity remains unsold,
- potential undue discrimination for new ASEPs which have no access to zero priced capacity as there are initially no short term auctions

New entry points may be at a disadvantage in that short term discounted capacity is not available prior to incremental capacity being released through a long term QSEC auction. Effectively new participants who are not able to benefit from the entry discounts may, through the TO Entry Commodity Charge, be cross-subsidising existing participants.

The TO Entry Commodity Charge was designed as a correction mechanism for under-recovery of allowed revenue from auctions. Using this charge to collect a large amount of under-recovered income from entry capacity auctions may result in a redistribution of charges from Users, acquiring Entry Capacity at a discounted rate, to those Users that have previously paid a "full" rate for capacity.

#### Secondary Market

Reserve price discounts may be a factor that inhibits entry capacity trading at ASEPs when there is unsold Obligated NTS Entry capacity. Some Users may have surplus capacity holdings and others are seeking short term rights but the value of sold capacity is destroyed by the existence of zero priced unsold capacity.

Users with surplus capacity holdings purchased in long term auctions are disadvantaged from trading away their surplus due to the substantially discounted primary capacity made available to other Users. Removal of discounts should better facilitate the secondary market in entry capacity.

#### Competition

The use of LRMC based prices under NTS GCM01 ensures that, in the absence of effective competition at an entry point, locational prices avoid undue preference. Discounts that set a zero reserve price can affect locational signals in short term auctions and allow Users at non-competitive entry points to purchase capacity cheaply, potentially passing on costs of providing capacity at these entry points to other system Users, through TO Entry Commodity Charges.

## 5. Way Forward

- 5.1. National Grid has now raised a charging proposal (NTS GCM 19) to remove the firm Daily NTS Entry Capacity Discounts and also raised the associated UNC Modification Proposal (UNC 284) to remove the references to the within-day Daily NTS Entry Capacity zero reserve price.
- 5.2. National Grid has also raised a UNC Modification Proposal relating to interruptible release (UNC 285).
- 5.1. National Grid does not intend to raise a UNC Modification Proposal relating to the removal of within-day Daily Obligated NTS Entry Capacity revenue from the capacity neutrality mechanism at this time. Initial assessment has indicated that this is highly unlikely to be delivered by 1<sup>st</sup> October 2010. The charging proposal to remove the discounts incorporates a proposal to treat within-day Daily Obligated NTS Entry Capacity revenue, not redistributed via the capacity neutrality mechanism, as TO revenue. This would facilitate the treatment of Daily Obligated NTS Entry Capacity revenue as TO revenue for charge setting purposes, should a Licence change mapping within-day obligated Daily NTS Entry Capacity (which would require a UNC Modification Proposal to remove this revenue from the capacity neutrality arrangements) be implemented at a later date.

This report has been placed on National Grid's information website:  
<http://www.nationalgrid.com/uk/Gas/Charges/>

## Appendix A. – Historic Analysis

The following analysis was presented at the 11<sup>th</sup> November 2009 entry charging review group meeting. The analysis looks at the revenue that National Grid would have collected from April 2008 to March 2009 if entry capacity discounts were removed.

This table shows the revenue that was collected through the Day Ahead Daily System Entry Capacity (DADSEC), Within-Day Daily System Entry Capacity (WDDSEC) and Daily Interruptible System Entry Capacity (DISEC) auctions from April 2008 to March 2009.

ASEP	DADSEC (£)	WDDSEC (£)	DISEC (£)	Total (£)
AVONMOUTH LNG	1,078.00	27.00	570.00	1,675.00
BACTON	412,744.79	39,984.17	84,377.14	537,106.10
BARROW	2,018.40	411.70	3,359.00	5,789.10
BARTON STACEY	0.00	0.00	0.00	0.00
BURTON POINT	0.00	0.00	0.00	0.00
CHESHIRE	0.00	0.00	0.00	0.00
DYNEVOR ARMS LNG	730.40	64.00	250.00	1,044.40
EASINGTON & ROUGH	161,342.32	20,595.08	237,811.28	419,748.68
GARTON	0.00	0.00	0.00	0.00
GLENMAVIS LNG	1,071.00	240.00	830.00	2,141.00
HATFIELD MOORS ONSHORE	0.00	0.00	0.00	0.00
HATFIELD MOORS STORAGE	0.00	989.40	178.80	1,168.20
HOLEHOUSE FARM STORAGE	0.00	0.00	0.00	0.00
HORNSEA STORAGE	11,787.50	8,248.44	3,478.41	23,514.35
ISLE OF GRAIN LNG	130.80	55.00	0.00	185.80
MILFORD HAVEN	0.00	0.00	0.00	0.00
PARTINGTON LNG	11,711.42	112.32	560.50	12,384.24
ST FERGUS	29,460.00	11,379.13	16,792.80	57,631.93
TEESSIDE	12,802.50	2,512.50	2,806.69	18,121.69
THEDDLETHORPE	70,198.04	8,501.61	21,531.81	100,231.46
WYTCH FARM ONSHORE	0.00	0.00	0.00	0.00
Total	715,075.17	93,120.35	372,546.43	1,180,741.95

The following table shows the revenue that would have been collected through the DADSEC, WDDSEC and DISEC auctions if MSEC reserve prices had been applied on a daily basis (p/kWh/day) from April '08 to March '09.

ASEP	DADSEC (£)	WDDSEC (£)	DISEC (£)	Total
AVONMOUTH LNG	1,078.00	35,347.76	7,169.60	43,595.36
BACTON	628,003.33	8,864,929.64	10,505,411.05	19,998,344.03
BARROW	3,046.60	29,815.20	1,504,457.96	1,537,319.76
BARTON STACEY	0.00	0.00	0.00	0.00
BURTON POINT	0.00	0.00	0.00	0.00
CHESHIRE	0.00	0.00	0.00	0.00
DYNEVOR ARMS LNG	388.40	6,410.20	4,284.80	11,083.40
EASINGTON & ROUGH	231,244.20	2,122,925.93	10,179,165.94	12,533,336.07
GARTON	0.00	0.00	0.00	0.00
GLENMAVIS LNG	1,602.00	3,819,354.48	376,409.95	4,197,366.44
HATFIELD MOORS ONSHORE	0.00	0.00	6.60	6.60
HATFIELD MOORS STORAGE	0.00	5,406.50	2,331.30	7,737.80
HOLEHOUSE FARM STORAGE	0.00	0.00	121.62	121.62
HORNSEA STORAGE	17,538.40	2,933,209.51	4,254,167.93	7,204,915.84
ISLE OF GRAIN LNG	130.80	21,470.10	10,277.14	31,878.04
MILFORD HAVEN	0.00	0.00	0.00	0.00
PARTINGTON LNG	11,522.42	12,689.09	5,994.09	30,205.60
ST FERGUS	44,145.00	21,979,573.57	54,062,455.49	76,086,174.05
TEESSIDE	19,090.00	2,231,236.66	4,636,341.87	6,886,668.53
THEDDLETHORPE	107,188.22	2,085,565.99	4,505,127.65	6,697,881.87
WYTCH FARM ONSHORE	0.00	0.00	0.00	0.00
Total	1,064,977.38	44,147,934.63	90,053,722.99	135,266,635.00

This table shows the revenue that would have been collected from capacity procured at each ASEP to match allocations above monthly capacity bookings (i.e. the minimum net quantity of capacity required at each ASEP to match allocations) from April '08 to March '09 if MSEC reserve prices had applied. The full effect of Shippers with allocations above or below their monthly capacity bookings (i.e. the minimum quantity of capacity required by each shipper to avoid over-runs) is hidden by the aggregation of the results by ASEP; It therefore assumes "near perfect" trading.

ASEP	Revenue from Monthly Capacity Bookings (£)	Revenue from Allocations Above Monthly Capacity Bookings if MSEC Prices were Applied (£)	Total
AVONMOUTH LNG	730.00	391.88	1,121.88
BACTON	18,230,396.12	2,305,893.66	20,536,289.78
BARROW	606,299.38	0.00	606,299.38
BARTON STACEY	0.00	0.00	0.00
BURTON POINT ONSHORE	21,763.16	0.00	21,763.16
CHESHIRE STORAGE	12,982.60	0.00	12,982.60
DYNEVOR ARMS LNG	13,761.20	126.63	13,887.83
EASINGTON	52,611,219.68	475,723.30	53,086,942.98
GARTON	2,759,400.00	0.00	2,759,400.00
GLENMAVIS LNG	128,948.00	31,516.28	160,464.28
HATFIELD MOORS ONSHORE	2,809.26	0.00	2,809.26
HATFIELD MOORS STORAGE	213,813.61	1,067.25	214,880.86
HOLEHOUSE FARM STORAGE	35,532.98	0.00	35,532.98
HORNSEA STORAGE	1,982,307.14	262,930.89	2,245,238.03
ISLE OF GRAIN LNG	8,300,386.00	422.67	8,300,808.67
MILFORD HAVEN	20,332,048.00	0.00	20,332,048.00
PARTINGTON LNG	730.00	746.27	1,476.27
ST FERGUS	104,166,120.43	0.00	104,166,120.43
TEESSIDE	5,068,805.42	0.00	5,068,805.42
THEDDLETHORPE	2,275,260.96	189,709.38	2,464,970.34
WYTCH FARM ONSHORE	0.00	0.00	0.00
Total	216,763,313.94	3,268,528.22	220,031,842.16

This table shows the revenue that would have been collected from gas flow allocations above monthly capacity holdings from April 2008 to March 2009 if MSEC reserve prices were applied.

The volume of capacity in excess of monthly capacity holdings has been calculated for each individual Shipper Licensed entity before being aggregated for each ASEP, and the results do not take account of shipper trading of capacity.

ASEP	Revenue from Monthly Capacity Bookings (£)	Revenue from Daily Capacity Bookings (£)	Revenue from DADSEC, WDDSEC and DISEC auctions if MSEC prices are applied (£)	Revenue from Gas Flow Allocations Above Monthly Capacity Bookings if MSEC Prices were Applied (£)
BACTON	18,230,396.12	537,106.10	19,998,344.03	
BARROW	606,299.38	5,789.10	1,537,319.76	
EASINGTON & ROUGH	52,611,219.68	419,748.68	12,533,336.07	
ST FERGUS	104,166,120.43	57,631.93	76,086,174.05	
TEESSIDE	5,068,805.42	18,121.69	6,886,668.53	
THEDDLETHORPE	2,275,260.96	100,231.46	6,697,881.87	
<b>Total</b>	<b>182,958,101.99</b>	<b>1,138,628.96</b>	<b>123,739,724.31</b>	<b>71,137,977.39</b>

## Appendix B. – Forward Looking Analysis

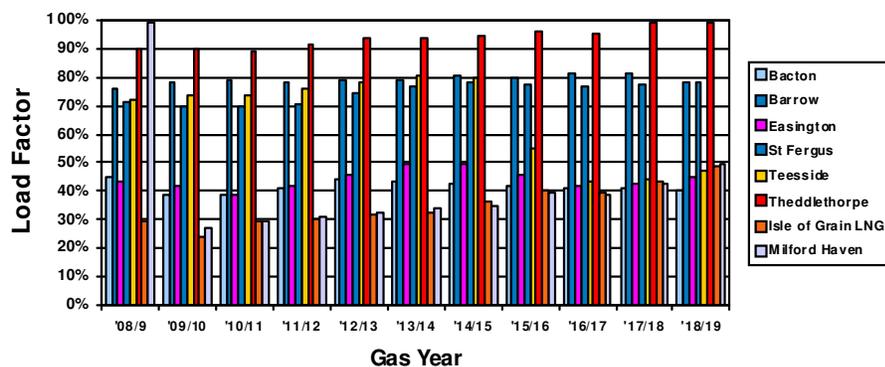
The following analysis approach has been presented at the entry charging review group meetings between September and November 2009. The following analysis covers a forecast of entry capacity revenue going forward taking into account the potential removal of daily capacity discounts. The graphs and data have been updated for the latest (2009 Ten Year Statement) forecast of supplies.

The assumptions required in order to forecast entry capacity revenue are

- Forecast peak supply levels
- Forecast supply profiles
- Capacity sold
- Capacity requirement

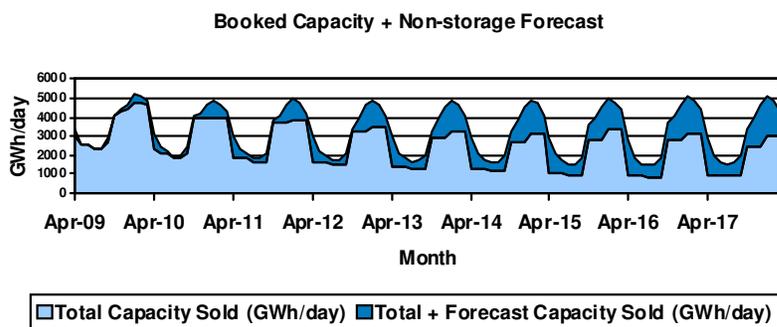
The 2009 Ten Year Statement (TYS) provides forecast peak and annual supply data but experience indicates that capacity for peak supplies will not be procured 365 days per year. In order to forecast future capacity revenue, a process for forecasting capacity profiles is required.

The following graph shows the TYS load factor for each ASEP. The Load Factor equals the ratio of average daily supply to peak supply. The average daily supply is calculated from the annual forecast divided by 365.

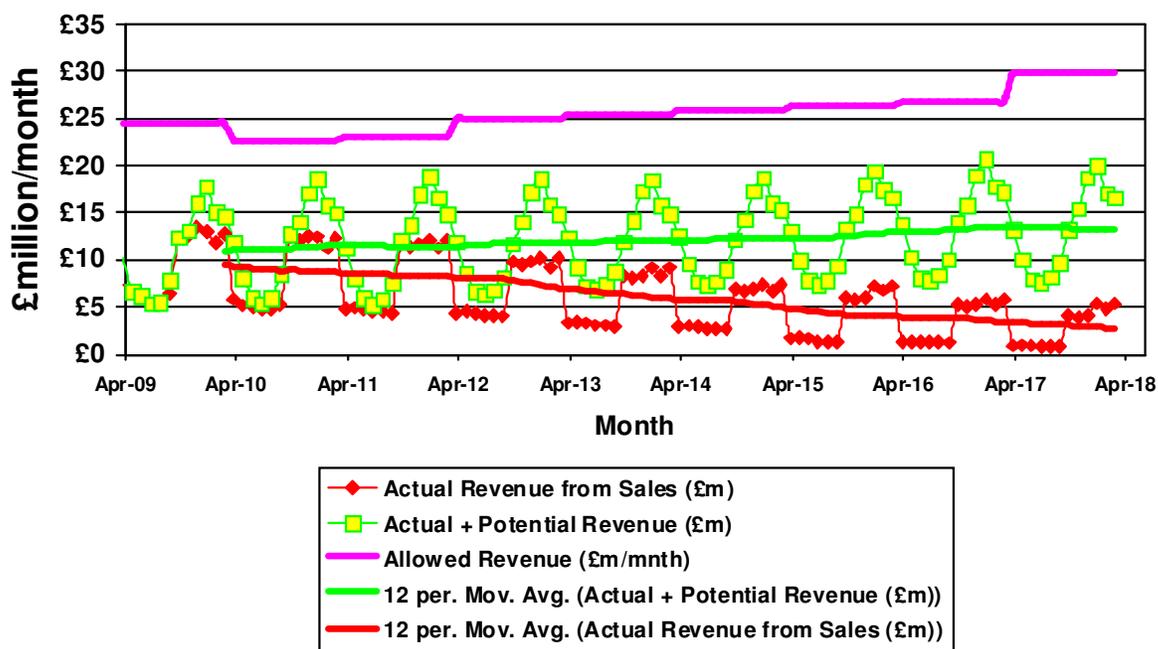


To take the “load-factor” into account, a capacity profile, with the maximum equal to the forecast maximum supply and average equal to the forecast annual supply, can be fitted for each ASEP. The maximum supply is assumed to be in January and equals the peak supply; as a consequence, the minimum supply is in July. The maximum capacity equals the peak supply unless the load factor is less than 50%. If load-factor is less than 50%, the January capacities are scaled down to avoid a negative supply in July; this would occur as a consequence of the profile of capacity across the year equalling the annual supply forecast.

The following graph shows this forecast capacity profile for all non-storage ASEPs.



Forecast capacity required for all beach ASEPs has been calculated on this basis. Capacity is assumed to be procured to exactly meet forecast supply and paid for. 2009 QSEC prices have been used as the latest forecast of future prices.



The forward looking analysis suggests that, assuming the removal of entry capacity discounts and capacity requirements procured as firm, entry capacity revenue will increase as more capacity is procured based on prices generated from the Transportation Model. It should be noted that prior to 2007 prices were based on UCAs and were on average 33% lower compared to the prevailing prices. Removal of discounts will not necessarily completely remove the shortfall between TO target entry revenue and TO entry capacity revenue (depending on shipper booking behaviour).

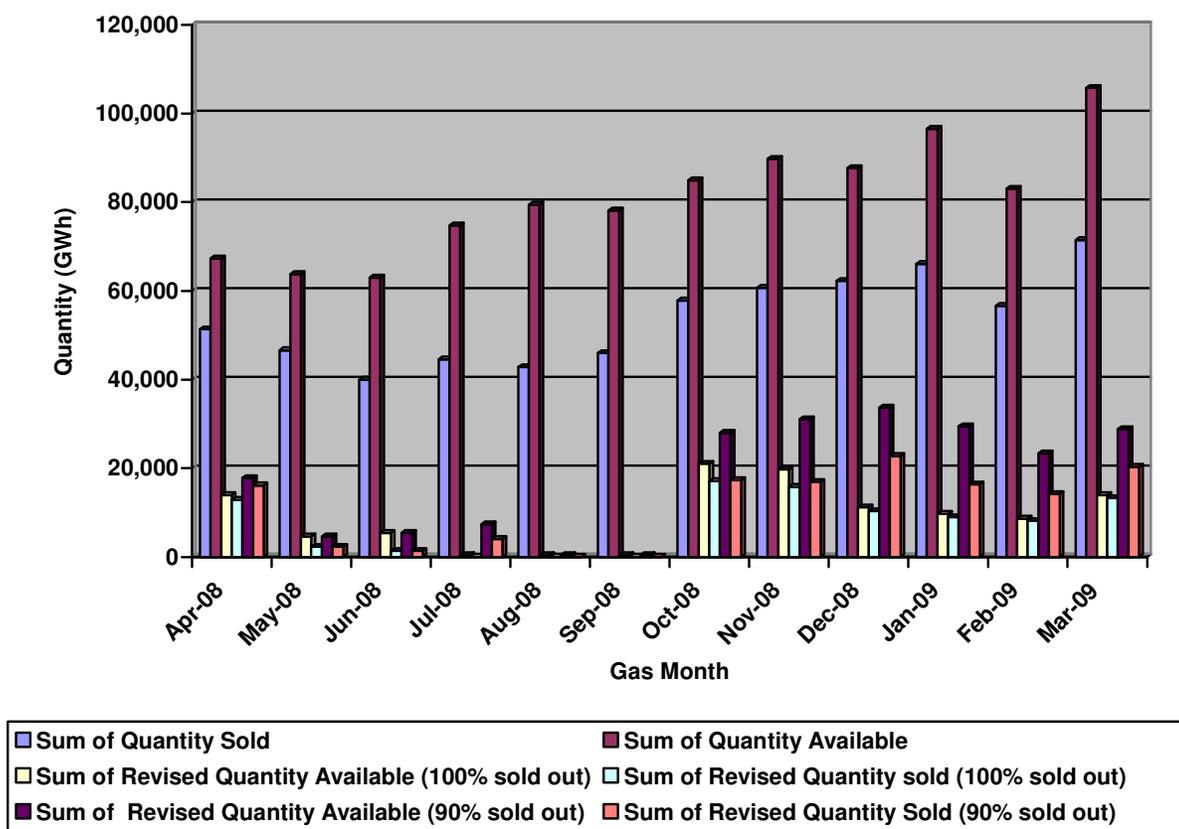
The following table shows the potential impact on the TO Entry Commodity charge.

Formula Year	Actual Revenue from Sales (£m)	Actual + Potential Revenue* (£m)	Allowed Revenue (£m)	Revenue Shortfall (£m)	Estimated TO Entry Commodity Charge (p/kWh)
April 09 to March 10	£113.4	£130.4	£293.4	£163.0	0.0179
April 10 to March 11	£104.0	£138.6	£271.3	£132.7	0.0145
April 11 to March 12	£98.1	£136.5	£277.1	£140.6	0.0154
April 12 to March 13	£84.0	£140.6	£298.8	£158.2	0.0173
April 13 to March 14	£70.4	£144.2	£304.3	£160.1	0.0175
April 14 to March 15	£59.1	£147.5	£309.9	£162.4	0.0178
April 15 to March 16	£47.8	£155.1	£315.4	£160.3	0.0176
April 16 to March 17	£40.2	£162.5	£320.9	£158.4	0.0174
April 17 to March 18	£32.8	£157.7	£356.5	£198.8	0.0218

\* includes potential revenue from LNG importation but excludes storage entry points.

## Appendix C. – Interruptible Quantity Analysis

The following analysis demonstrates the impact of limiting the release of interruptible entry capacity to when firm capacity has sold out or is close to selling out. The analysis shows the quantities released and sold for the 2008 to 2009 formula year. The analysis then shows the revised quantities that would have been released and sold if interruptible entry capacity had only been released when firm capacity at the relevant ASEP had sold out (“100% sold out”) or when firm capacity had sold in excess of 90% of the firm obligated entry capacity made available (“90% sold out”).



## Appendix D. – Key NTS Entry Capacity Charging Changes

The following table outlines the key NTS Charging Methodology changes in relation to the setting of NTS Entry Capacity reserve prices.

No	Date	Key Changes
PC36	Nov 1998	Introduction of daily entry capacity priced at 4 times the administered charge rate for firm and zero for interruptible
PC48	July 1999	Introduction of monthly capacity auctions. MSEC Floor prices determined by the established LRMC methodology with a common 25% discount.
PC49	Aug 1999	DSEC ~ 1.5 x daily rate of cleared price obtained in the relevant monthly auction. (average of the top 50% by volume of accepted bids) or 1.0 x published charges. DISEC ~ 0.1 x daily rate of cleared price obtained in the relevant monthly auction. (average of the top 50% by volume of accepted bids) or published charge.
PC51	Jan 2000	Introduction of within day auctions (WDDSEC) with a floor price multiple of 1.0 times the average of the top 50% by volume of accepted bids in the relevant auction of MSEC.
PC61	May 2000	MSEC floor price calculations take into account the quantities that have been identified for sale in the Network Code and The adjustment for an assumption of equal revenue recovery from NTS entry and exit capacity should be discontinued.
PC62	May 2000	DSEC Floor Prices should follow the same methodology as that applied for MSEC and that a 50% discount should be applied to the adjusted administered charge rate. Daily interruptible (DISEC) reserve price of zero.
PC72	Feb 2002	In light of the issues raised and the detailed Licence drafting published at the time, it was decided not to propose the methodology change introducing WDDSEC zero prices, as outlined in PC72.
PC76	Nov 2002	Reserve prices for NTS TO entry capacity should be based on the UCAs specified in the GT Licence. Prices no longer adjusted for allowed revenue. The relationship between MSEC and DADSEC reserve prices remain as at present, with DSEC reserve price at each entry point equal to two thirds MSEC reserve price WDDSEC reserve prices should be zero
GCM01	Nov 2006	Introduction of the Transportation Model

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## Appendix E. – Relevant Charging Objectives

### Licence Objectives

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. Respondents are therefore asked to consider how the proposals would best satisfy the relevant objectives as part of their responses to this Consultation Paper.

The relevant charging objectives are as follows;

- 1) (a) Where transportation prices are not established through an auction, prices calculated in accordance with the methodology should reflect the costs incurred by the licensee in its transportation business;
- 1) (bb) Where prices are established by auction, either
  - no reserve price is applied, or
  - that reserve price is set at a level best calculated to promote efficiency and avoid undue preference in the supply of transportation services; and
  - best calculated to promote competition between gas suppliers and between gas shippers;
- 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.

### EU Gas Regulations

EC Regulation 1775/2005 on conditions for access to the natural gas transmission networks (binding from 1 July 2006) is summarised as follows; 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.