nationalgrid

CONSULTATION DOCUMENT

Modification Proposal to the Gas Transmission Transportation Charging Methodology

NTS GCM 19:

Removal of NTS Daily Entry Capacity Reserve Price Discounts

8th March 2010

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Executive Summary

This document sets out, for consultation, proposals for revising the Gas Transmission Transportation Charging Methodology (the "Charging Methodology") with regard to the setting of Daily NTS Entry Capacity reserve prices at NTS Entry Points. This document is 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 Entry Charging Review Group (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 under-recovery from NTS Entry Capacity Revenue.

Through the ECRG, the discounts that apply to firm NTS daily entry capacity have been identified as a key contributing factor to the high level of the TO Entry Commodity Charge. It was requested by the ECRG that a discussion paper (NTS GCD 08) be raised to consult on the work carried out to date through the ECRG. In response to GCD08, the majority of respondents favoured the removal of the firm discounts. A UNC proposal to remove the reference to the zero within-day reserve price would be required.

National Grid proposes through NTS GCM19 that:

- The 33% NTS Entry Capacity Reserve price discount for day ahead daily entry capacity (DADSEC) is removed.
- The 100% NTS Entry Capacity Reserve price discount for within-day daily entry capacity (WDDSEC) is removed.
  - As a consequence of the removal of the discounts, day-ahead and within-day Daily NTS Entry Capacity reserve prices (p/kWh/day) would both be equal to the rolling monthly auction reserve prices
- The revenue from the sale of within-day Obligated Daily NTS Entry Capacity (not redistributed via capacity neutrality) would be treated as TO revenue for charge setting purposes.
  - This would require a Licence change to facilitate the change in revenue treatment and
  - Currently all within day entry capacity revenue is redistributed via capacity neutrality and therefore this would be subject to a UNC change to prevent revenue from the sale of within-day Obligated Daily NTS Entry Capacity feeding capacity neutrality

Implementation

It is proposed that these revised reserve price arrangements are implemented in relation to capacity made available from 1st October 2010. A decision would be required at least two months prior to this date (31st July 2010) to allow for the code defined two month notice of charges.

Associated Licence and UNC changes would be required to implement this proposal (GCM19). The UNC change(s) will be progressed through the UNC Transmission Workstream. While the within-day zero reserve price can be progressed without any systems changes, initial analysis has indicated that any changes to neutrality will require systems changes that could not be delivered for 1st October 2010.

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

The closing date for submission of your responses is **Tuesday 6th April 2010**. Your response should be e-mailed to eddie.j.blackburn@uk.ngrid.com or debra.hawkin@uk.ngrid.com

alternatively by post to Eddie Blackburn/Debra Hawkin, Regulatory Frameworks, National Grid, NG House, Gallows Hill, Warwick, CV34 6DA. If you wish to discuss any matter relating to this charging methodology consultation then please call ☎ 01926 656022.

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

1. Introduction

Industry 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.

Review Objectives

1.3. 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).

1.4. The agreed objectives of the review 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.

2.3. One of the key factors, leading to entry capacity revenue under-recovery, is the discounting that applies to daily entry capacity reserve prices; a 33% discount applies to day-ahead auctions and a 100% discount applies to within-day entry auctions of firm capacity. Interruptible daily entry capacity is also auctioned with a zero reserve price.

Entry Capacity Auction Release Obligations & Reserve Pricing Setting

2.4. 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.

2.5. 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.

2.6. The obligated entry capacity level incorporates:

- Initial NTS SO Baseline 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

2.7. A proportion of NTS SO Baseline Entry Capacity (10% for the 2007-2012 Price Control Period) is held back from earlier auctions 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.

2.8. 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 at the obligated level.

2.9. Unsold Obligated NTS Entry Capacity from the QSEC auctions is made available in monthly blocks through the annual AMSEC auction and through the monthly RMSEC auctions. The reserve prices are currently set using the Transportation Model with the relevant entry point at the obligated level.

2.10. 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 entry capacity prices are then discounted by 33% and on the day daily entry capacity prices are discounted by 100%. It should be noted that NTS exit prices are adjusted for allowed revenue by adding a uniform constant adjustment to all exit LRMCs.

2.11. National Grid currently sets Obligated NTS Entry Capacity reserve prices for all long, medium and short term Entry Capacity auctions on the same basis but applies a discount for Users that purchase capacity in the short term auctions – 33.3 % for day-ahead firm, and 100% for within-day firm and interruptible capacity.

2.12. The 33% discount for day-ahead capacity originates from the introduction of monthly capacity auctions. At this time, annual and monthly 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 reflected with the 33% discount. Appendix C covers a brief history of the relevant charging methodology consultations and changes.

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.

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 Daily Interruptible Entry Capacity (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.

2.18. Net neutrality costs or revenues are shared for each gas day between Users, prorated to their Entry Capacity holdings.

2.19. There is an incentive relating to the sale of within-day entry capacity (including non-obligated within-day or in any other auction) with a fifty percent sharing factor. The incentive results in 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.
  - 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 Entry Charging Review Group (ECRG). Addressing the significant quantities of entry capacity auctioned at zero reserve price is seen as the priority. It was requested by the ECRG that a discussion paper (NTS GCD 08) be raised to consult on the work carried out to date by the group.

3.5. Addressing the significant quantities of entry capacity auctioned at zero reserve price 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. The majority of responses to GCD08 favoured removal of the firm discounts, retaining the zero reserve price for interruptible capacity and only releasing interruptible when firm capacity has sold out.

3.6. 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.

3.7. It is anticipated that price multipliers will be further developed within future ECRG meetings and/or the Gas Transmission Methodologies Forum (Gas TCMF). 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

3.8. It is anticipated that the issue of incentivising the use of spare capacity as an alternative to investment can only be addressed through the long term QSEC auctions, as these are the only auctions where incremental capacity can be released.

3.9. 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.

3.10. Recent development of the over recovery mechanisms has highlighted that redistribution of over-recovery revenue based on capacity holdings may create perverse incentives to over procure capacity.

3.11. 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.

Historical and Future Revenue Analysis

3.12. 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.

3.13. 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 on an individual shipper basis 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.

3.14. 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 assessing the impact prior to introducing any further changes to entry reserve prices.

3.15. Appendix B shows a forward looking analysis that indicates that the removal of discounts will have a significant impact over time in terms of closing the gap between collected entry capacity revenue and target entry revenue; however, the gap is not completely closed and hence further changes may be required.

Entry Capacity Substitution

3.16. 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 moved 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.

3.17. 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. under certain circumstances it may reduce the release of "funded incremental obligated entry capacity" and increase the sale of "non-incremental obligated entry capacity".

3.18. 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. While this will increase the TO capacity revenue collected, there will be an anticipated increase in TO allowed revenue as investments associated with the release of the incremental obligated entry capacity are included within the TO regulated asset value and hence the TO allowed revenue.

3.19. 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.

3.20. 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

ASEP	Cost of 10 Mscm/d for 6 months/year	Impact on TO Commodity Charge (p/kWh/day)
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

3.21. 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.

3.22. 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;"

3.23. The Licence states that this obligation should not "contravene the provisions of"…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.

3.24. 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.

3.25. 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

3.26. 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 would 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.

3.27. 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.

3.28. A UNC proposal is required to remove the zero price references in regard to daily auctions, and this is being progressed via the UNC Transmission Workstream.

3.29. 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.

3.30. Within-day obligated entry capacity revenue is mapped to the SO price control within the Licence, while revenue from the sale of obligated entry capacity is mapped to the TO price control for all other entry capacity auctions.

3.31. Treating within-day obligated entry capacity revenue as TO rather than SO, for charge setting purposes, would require a Licence change to convert the mapping from SO to TO , and this would be subject to a UNC change to prevent revenue from the sale of within-day Obligated Daily NTS Entry Capacity feeding capacity neutrality.

3.32. 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.

3.33. 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).

3.34. This calculation could either apply only when firm capacity has sold out and/or be modified.

3.35. 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. A detailed solution would need to be agreed within the UNC Transmission Workstream; however, this might involve the UIOLI quantity at an ASEP being released only when it was in excess of the unsold firm capacity at the ASEP, or alternatively, the UIOLI quantity could be modified to be the difference between the prevailing calculation and the unsold firm capacity.

Further Options

3.36. 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.

3.37. 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 1/365th 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.

3.38. Given that quarterly capacity long term auctions cover a 17 year period and that these auctions are the primary devise for triggering incremental capacity, the view of the industry is that QSEC capacity pricing should remain unaltered.

Phased Approach

3.39. Through the entry charging review group 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.

3.40. The impact of this first phase could then be assessed before daily multipliers and monthly multipliers were introduced as later phases. This would allow experience of the revised phase one arrangements to be taken into account when setting the values for price multipliers.

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

European Comparison

3.42. 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.

3.43. 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 less on a daily basis (p/kWh/day) than annual/quarterly capacity
- less than 50% of entry target revenue is recovered through capacity charges

3.44. Concerns had 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 remains un-sold.

Summary

3.45. Removing daily discounts and considering the introduction of 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 hence incentivise security of supply

3.46. 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 setting of price multipliers without introducing the risk of over recovery and price fluctuations.

4. National Grid's Proposal

4.1. National Grid proposes through GCM19 that:

- The 33% NTS Entry Capacity Reserve price discount for day ahead daily entry capacity (DADSEC) is removed.
- The 100% NTS Entry Capacity Reserve price discount for within-day daily entry capacity (WDDSEC) is removed.
  - As a consequence of the removal of the discounts, day-ahead and within-day Daily NTS Entry Capacity Reserve prices (p/kWh/day) would both be equal to the rolling monthly auction reserve prices
- The revenue from the sale of within-day Obligated Daily NTS Entry Capacity (not redistributed via capacity neutrality) would be treated as TO revenue for charge setting purposes.
  - This would require a Licence change to facilitate the change in revenue treatment and
  - Currently all within day entry capacity revenue is redistributed via capacity neutrality and therefore this would be subject to a UNC change to prevent revenue from the sale of within-day Obligated Daily NTS Entry Capacity feeding capacity neutrality.

Implementation

4.2. It is proposed that these revised reserve price arrangements are implemented in relation to capacity made available from 1st October 2010. A decision would be required at least two months prior to this date (31st July 2010) to allow for the code defined two month notice of charges.

4.3. Associated Licence and UNC changes would be required to implement this proposal (GCM19). The UNC change(s) will be progressed through the UNC Transmission Workstream. While the within-day zero reserve price can be progressed without any systems changes, initial analysis has indicated that any changes to neutrality will require systems changes that could not be delivered for 1st October 2010.

5. Justification

Licence Objectives

5.1. 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.

5.2. 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

5.3. 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.

National Grid's View

5.4. This section presents the views of National Grid in respect of the extent to which the proposals set out under section 4 would achieve the relevant methodology objectives under the National Grid NTS GT Licence and the EU Gas Regulations (as summarised above).

5.5. National Grid has a Licence obligation to use all reasonable endeavours to offer all obligated capacity in at least one clearing allocation unless this would contravene the relevant charging Licence conditions. The 100% discount for within-Day firm capacity was introduced to meet this Licence obligation; however, National Grid has reviewed the impact of these discounts and believes they are no longer consistent with the wider Licence obligations.

Principles

5.6. Access arrangements should be based on:

- Long-term user commitment to underpin investment to avoid significant transfer of stranding risk to customers.
- Strong financial incentives on National Grid to make new capacity available/deliver new investment on time
- Incentives on National Grid to release further non obligated capacity closer to real time
- Tradable rights at and across entry points with mechanisms to ensure capacity is not hoarded or sterilised

Cost Reflectivity

5.7. 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.

5.8. If NTS Entry Capacity auction reserve prices are not set on a cost reflective basis, through the unconditional 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.

5.9. Removal of discounts, in combination with the application of the Gas Charging Transportation Model (as introduced by NTS GCM 01), would 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

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

Stability

5.11. Discussions with the industry have indicated that stable, or at least predictable, prices are preferable. National Grid is concerned that the industry desire for stable and predictable prices is not fulfilled by discounting capacity prices in the short term.

5.12. 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.

5.13. 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

5.14. 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.

5.15. 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

5.16. New entry points may be at a disadvantage in that no short term discounted capacity is 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.

5.17. 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

5.18. 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 capacity.

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

Competition

5.20. 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.

6. Questions for Consultation

National Grid invites views on whether the proposed changes to our Gas Transmission Transportation Charging Methodology meet the Licence objectives, specifically that:

- Q1. Should the discounts that apply to day-ahead (DADSEC) firm daily entry capacity be removed?
- Q2. Should the discounts that apply to within-day (WDDSEC) firm daily entry capacity be removed?
  - As a consequence of the removal of the discounts, day-ahead and within-day Daily NTS Entry Capacity Reserve prices (p/kWh/day) would both be equal to the rolling monthly auction reserve prices
- Q3. Should revenue from the sale of within-day Obligated Daily NTS Entry Capacity (if not redistributed via capacity neutrality) be treated as TO revenue for charge setting purposes?

The closing date for submission of your responses is **Tuesday 6th April 2010**. Your response should be e-mailed to eddie.j.blackburn@uk.ngrid.com or debra.hawkin@uk.ngrid.com

alternatively by post to Eddie Blackburn/Debra Hawkin, Regulatory Frameworks, National Grid, NG House, Gallows Hill, Warwick, CV34 6DA. If you wish to discuss any matter relating to this charging methodology consultation then please call ☎ 01926 656022.

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

Appendix A. – Historic Analysis

The following analysis was presented at the 11th 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. Data for revenue from gas flow allocations above monthly capacity bookings, if MSEC reserve prices were applied, has not been shown at ASEP level to protect confidentiality.

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. 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	
Total	**182,958,101.99**	**1,138,628.96**	**123,739,724.31**	**71,137,977.39**

Appendix B. – Forward Looking Analysis

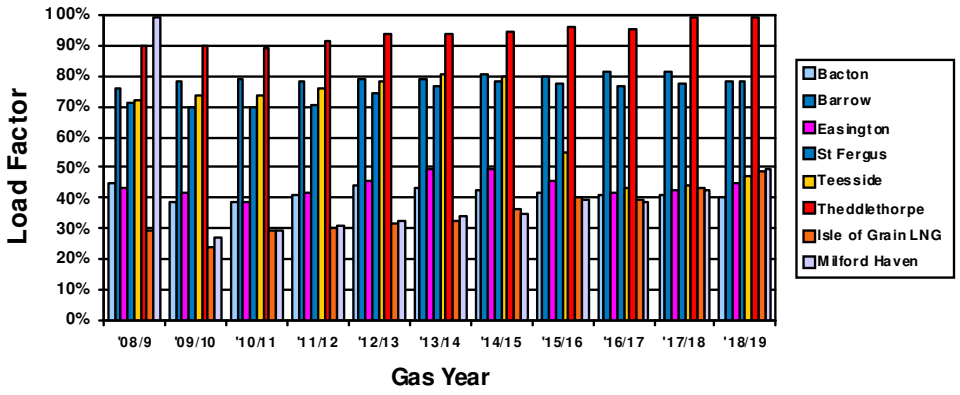
The following analysis approach has been presented at the entry charging review group meetings between September and November 2009. The following analysis covers a forecast of entry capacity revenue going forward taking into account the potential removal of daily capacity discounts. The graphs and data 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

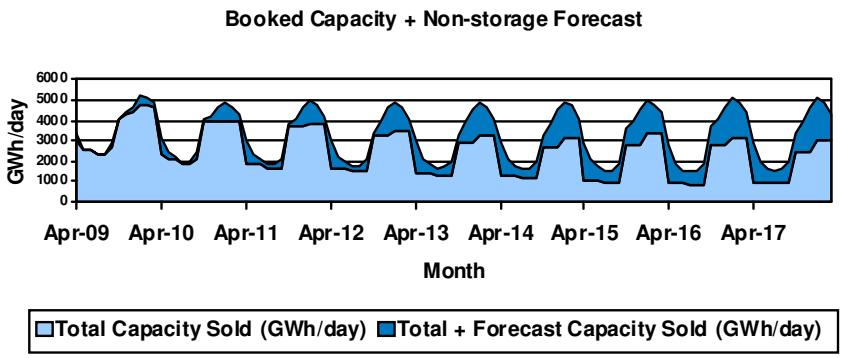
The 2009 Ten Year Statement (TYS) provides forecast peak and annual supply data but experience indicates that capacity for peak supplies will not be procured 365 days per year. In order to forecast future capacity revenue, a process for forecasting capacity profiles is required.

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.

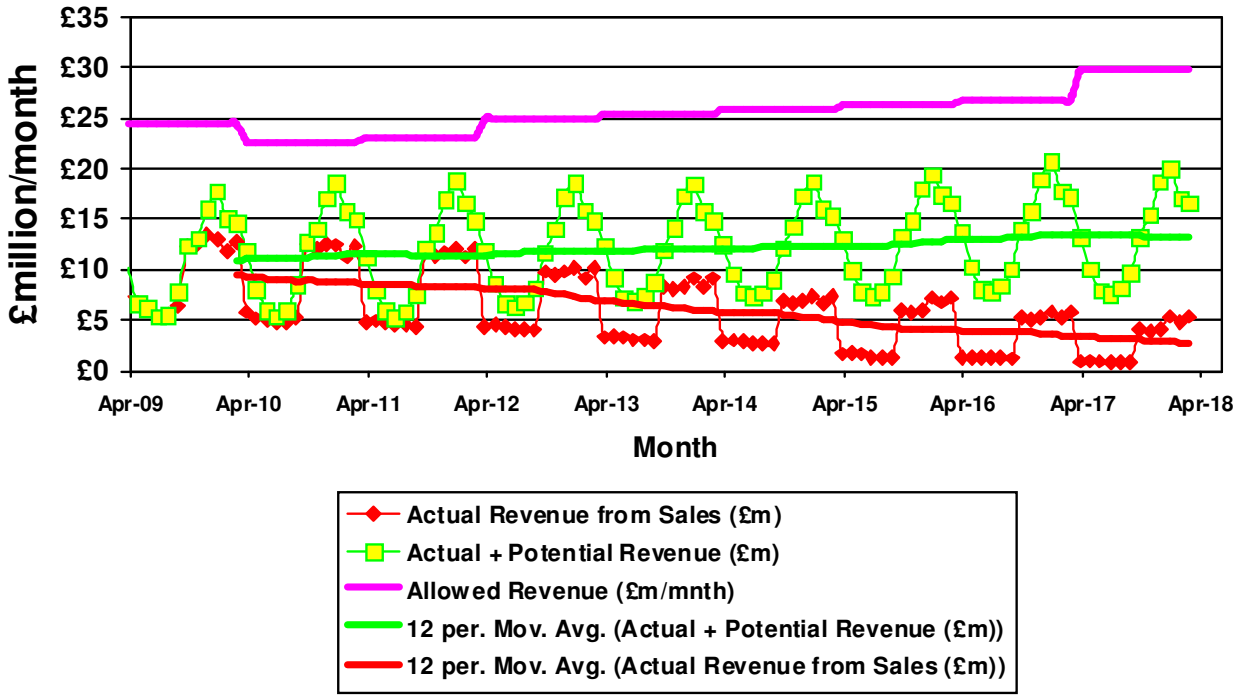


To take the "load-factor" into account, a capacity profile, with the maximum equal to the forecast maximum supply and average equal to the forecast annual supply, can be fitted for each ASEP. The maximum supply is assumed to be in January and equals the peak supply; as a consequence, the minimum supply 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 from the analysis above.

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. – 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