

Pricing Discussion Paper PD18

NTS Exit Flat Capacity Pricing

1. Introduction

The proposed reform of NTS exit arrangements expected in October 2008 would create an NTS exit flat capacity product available through auction mechanisms. Exit reform would also bring change in respect of which parties are responsible for securing NTS exit flat capacity. Initial long-term, exit flat capacity auctions are expected to take place in the second quarter of 2005.

In light of these developments, Transco is required by its licence obligations to consider how the NTS exit flat capacity product should be priced and therefore consider the changes required to the transportation charging methodology. This Pricing Discussion paper considers methodologies for the calculation of NTS exit flat capacity charges for baseline and incremental quantities that would be levied on shippers on behalf of NTS direct connects; and Distribution Network Operators (DNO's) on behalf of the applicable NTS/DN interface, from 1 October 2008. A number of other changes to the NTS exit flat capacity pricing methodology have been identified as a consequence of the exit reform proposals, and these are also discussed in this paper.

It is envisaged that any changes to the charging structure associated with the purchase of the NTS exit flat capacity in longer-term auctions would be needed later this year, although payment of any revised charges would not occur until 2008.

Following the conclusion of this pricing discussion consultation, if Transco intends to bring forward change to its transportation charging methodology, it would raise a proposal and consult formally with the industry, in accordance with Amended Standard Licence Condition 4A.

A number of other transportation charging methodology modifications may be required to NTS transportation charges. These issues are discussed in related papers numbered PD19¹ and PD20² both of which may have a bearing on this pricing consultation. Respondents are therefore requested to review this document in the context of wider transportation charging methodology change discussion.

2. Licence Requirements

The Transmission Licence requires Transco to propose changes to the charging methodology where the resultant charges would achieve the relevant objectives. The relevant objectives are namely that charges calculated in accordance with the methodology should:

1. Reflect the costs incurred by the licensee in its transportation business
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.

¹ PD19 NTS SO and TO Commodity – February 2005

² PD20 NTS Exit Flexibility Capacity and Commodity Charges – February 2005

Where prices are established by auction the first objective is replaced by the requirement that reserve prices, if used, should be set at levels best calculated to promote efficiency and avoid undue preference in the supply of transportation services, and promote competition.

With the development of Exit Reform and Network Sales, Transco is required by these conditions to consider what changes to the charging methodology are required. Any proposals must be shown to achieve the relevant objectives.

Transco notes that Gas Transporter licence arrangements are currently being discussed with the industry as a consequence of changes required to facilitate Network Sales and NTS Exit Reform. As part of this process, Ofgem has proposed a further charging licence obligation on NTS and DN licensees which may restrict the frequency and date(s) upon which charges may be changed by a licensee within any formula year.

3. Present Procedures for NTS Exit Capacity Charging

3.1 Baseline NTS Exit Capacity

At present, the majority of NTS exit flat capacity is registered to shippers as a consequence of the supply point administration processes. Shippers are directly responsible for NTS exit flat capacity booking at a small number of NTS Connected System Exit Points e.g. Bacton Interconnector. Transco levies administered NTS exit flat capacity charges on shippers to reflect their exit flat capacity registration.

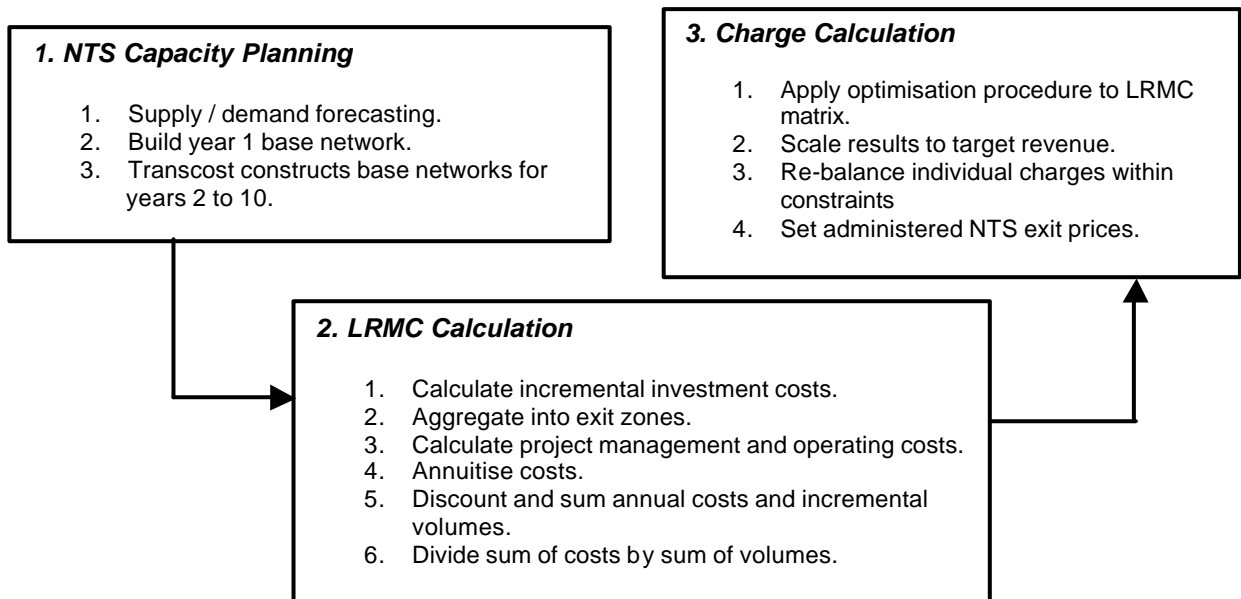
3.1.1 Long Run Marginal Cost (LRMC)

Present NTS exit capacity charges are based upon the estimated long run marginal cost (LRMC) of reinforcing the system to transport additional gas between entry and exit points.

A model, known as Transcost, has been developed by Transco to estimate LRMCs to support the setting of NTS exit capacity charges. The LRMC approach derives forward-looking charges, which are intended to provide economically efficient signals to system Users. The LRMC calculation uses the supply/demand match set out in the Base Plan Assumptions from the 10 Year Statement and the reinforcement plans that are derived from it. Transcost first constructs a base network that is just sufficient to support the supply/demand match for year 1 of the analysis. This will equate to the present network plus any known reinforcement projects that will be completed before year 1 begins. For each subsequent year of the analysis, Transcost will reinforce the modelled network from the previous year so that it is just sufficient to support the supply/demand match for that year. There are therefore ten separate but related networks to be used in the analysis.

Figure 1 presents a schematic diagram of the steps presently involved in calculating LRMC reflective NTS TO exit capacity charges:

Figure 1: LRMC Overview



Baseline NTS exit capacity charges are administered on an aggregated zonal basis for the Distribution Network offtakes (nodal for NTS direct connects) with the aim of recovering 50% of Transco's allowable revenue, with the remaining 50% to be recovered from NTS entry charges. In addition, the existing methodology constrains any re-balancing of exit prices with the latest LRMC calculations. The re-balancing rules compare the latest prices with charges over the last two years, and smooth any changes, with movement limited by a given percentage (+/- 30% in 2001).

3.1.2 Interruptible Capacity

At present, exit capacity charges are applied only in respect of firm loads. Interruptible capacity is available for supply points with annual quantities of over 5,860 MWh per annum at zero price. For supply points that have been nominated by a shipper as interruptible, the shipper will not pay the NTS exit capacity charge and where Transco nominates a supply point to be interrupted for more than 15 days in a particular year (measured from 1 April to 31 March) there is a transportation charge credit.

3.1.3 Constrained Liquefied Natural Gas (LNG)

Shippers that currently book one of the constrained Liquefied Natural Gas (LNG) storage services undertake an obligation to provide transmission support gas to Transco on days of very high demand. In recognition of this, shippers receive a credit in respect of minimum booked storage deliverability. The credit is deducted from the charge for the storage service.

3.1.4 NTS Exit Capacity Charge Re-balancing

PC76³ which was implemented in December 2002, proposed that the pre-existing balance of exit capacity charges should be maintained until NTS exit reform is introduced. Furthermore, in previous years, changes to the administered exit prices were constrained by agreed

³ PC76 NTS TO Entry Capacity Auction Reserve Prices and Exit Charges – November 2002

mechanisms consulted on in PD2⁴, PD6⁵, PD11⁶ and PC71⁷. Since over the years there have been significant changes to the NTS and to the flows of gas on the system, the capacity charges currently applied do not necessarily reflect the latest LRMCs. In some cases, this divergence between the present charges and the latest LRMCs is quite significant. This is explained further in section 4.1.2.

3.1.5 Incremental NTS Exit Capacity – Direct Connects

At present, Users are required to sign up to an Advanced Reservation of Capacity Agreement (ARCA) when requesting incremental exit capacity above baseline levels which may trigger specific reinforcement upstream of the charging point. An ARCA will oblige the User requesting additional capacity to ensure that their Registered User books firm capacity in respect of their supply point, to at least the level of the ARCA, or to pay Transco an appropriate amount to compensate for the loss of transportation revenue. Each ARCA will remain in force for an agreed duration.

3.1.6 Incremental NTS Exit Capacity – Distribution Network Offtakes

Under the single Gas Transporter's Licence, incremental capacity necessary to meet increased Distribution Networks' demands is implicit in the security of supply obligations within Transco plc's Licence (Standard Condition 16) and the Transco Safety Case.

4. Possible Changes to NTS Exit Capacity Charging

4.1 Baseline NTS Exit Capacity

Currently, the majority of NTS exit flat capacity is registered to shippers as a consequence of the supply point administration processes. Shippers are directly responsible for NTS exit capacity booking at a small number of NTS Connected System Exit Points. Transco levies administered NTS exit capacity charges on shippers to reflect their exit capacity registration. From October 2008, Transco has proposed that NTS exit flat capacity be offered to shippers on behalf of direct connects; and DNO's in respect of the applicable NTS/DN interface through annual capacity auctions. This approach is broadly similar to how NTS entry capacity is currently made available to shippers by Transco.

At present, Transco aims to recover 50% of its NTS TO revenue through administered NTS exit capacity charges, assuming that the other 50% will be recovered from NTS TO charges on entry. The current 50/50 revenue split between entry and exit capacity could be maintained on the grounds that a change to the methodology away from 50/50 would be difficult to justify against the relevant licence objectives.

4.1.1 Auction Mechanisms

At present, Transco charges for NTS exit capacity on an administered charge basis. Transco propose that NTS exit flat capacity from October 2008 would be offered through auction mechanisms, similar to the current process for offering NTS entry capacity.

In the past, Transco has argued in favour of the use of reserve prices where NTS capacity products are made available through auctions⁸. Transco noted that, in its view, essential requirements of a non-discriminatory auction are measures to mitigate against potential

⁴ PD2 1998 NTS Capacity Charge Rebalancing – May 1998

⁵ PD6 1999 NTS Capacity Charge Rebalancing – May 1999

⁶ PD11 2000 NTS Capacity Charge Rebalancing – July 2000

⁷ PC71 NTS Transmission Asset Owner Charges – November 2001

⁸ PC76 NTS TO Entry Capacity Auction Reserve Prices and Exit Charges – November 2002

market power. To that end, reserve prices are a standard means of preventing the impact of dominant players exercising market power. This requirement may be considered to be particularly relevant for a regulated monopoly such as Transco where revenue shortfalls resulting from an auction may be expected to be paid for by increasing transportation charges. This would necessarily introduce distributional effects, which in some circumstances might be regarded as unduly discriminatory, and may be regarded as contrary to facilitating effective competition between gas shippers and between gas suppliers.

Transco remains firmly of the above view and believes the issues to be common regardless of whether the capacity product being auctioned is at NTS entry or exit. Indeed, in many ways, we believe the issues are more acute at exit where this product is offered on a nodal basis.

4.1.2 Long Run Marginal Cost

Transco believes that the current LRMC based approach for NTS capacity transportation charge setting would be an appropriate basis for setting auction reserve prices. The LRMC methodology is long established and produces cost reflective forward-looking locational investment signals based on incremental reinforcements of the NTS to transport additional gas between entry and exit points. The LRMC approach has been a methodology approved by the Authority as achieving the relevant objectives for a number of years, both for the administered charges and in the setting of entry Unit Cost Allowances (UCAs) which underpin entry prices. We believe that LRMC based reserve prices for NTS exit flat capacity would achieve the relevant licence objectives and promote efficiency and avoid undue discrimination in the supply of transportation services. There are however a number of different options for how LRMC based reserve prices could be set, which are discussed further in this paper.

It is anticipated that a set of UCAs will be defined as part of Transco's NTS exit capacity incentive mechanism, and it is expected that these will also be LRMC based similar to the existing UCAs for entry capacity. Whilst it is possible to produce variations in the LRMCs produced by Transcost by adjusting the input assumptions, one option would be to adopt reserve prices that are consistent with the licence defined UCAs. Therefore, as with entry capacity one option for exit capacity reserve prices would be to base them on the licence defined UCAs. This approach provides an additional benefit in terms of stability, as pricing changes would be driven by any review of the UCAs within the licence. The UCAs for entry capacity have been fixed for a number of years and would normally be expected to be updated as part of Transco's price control review. However, given the potential variation between present exit charges and UCA-based reserve prices derived from the latest LRMCs, it is for discussion whether it is appropriate to set reserve prices equal to the UCAs at the outset of the new exit arrangements.

In any event, whilst the current LRMC methodology is expected to form the basis of the future NTS exit capacity charging methodology, it is possible that a number of differences to the current administered methodology will be necessary where the LRMC output is used for UCA / auction reserve price determination. These are described below.

Nodal Costs

Under the current exit reform proposals, from October 2008, the NTS exit flat capacity product would be made available on a nodal basis and therefore auction reserve prices should also be determined and published at a nodal (NTS offtake) level. Accordingly, Transcost would no longer aggregate offtakes in zones for the purpose of deriving NTS exit LRMC's.

Increment Size

The size of the increment used in the LRMC charging methodology is set such that the economic investment signals resulting from the LRMC process are meaningful. Too small an increment and the LRMC's will tend to zero. Too large and they will tend to a distance-related

charge. The prevailing NTS exit capacity methodology uses an increment of 2.834 mscm/d. The increment used to calculate the UCAs will ultimately be dependant on the methodology adopted by Ofgem, however the UCAs for existing NTS entry points have all been calculated using an increment of 6 mscm/d.

At some point in the future, all UCAs will be reviewed. Assuming the UCAs continue to be calculated using Transcost, it does not seem likely on the grounds of consistency and compatibility that a future review of UCAs would conclude that different increment sizes should be employed for entry and exit (although some variation may be appropriate when assessing system extensions). If a different increment size were to be used to derive the initial exit reform UCAs, then when all UCAs are reviewed, there is likely to be a step change as entry and exit are aligned. This suggests that alignment with entry at this time by using an increment of 6 mscm/d may have merit in terms of longer-term stability.

Illustrative Auction Reserve Prices

Illustrative baseline reserve prices are attached in Appendix A Table A1 using both the 2.834 mscm/d and 6 mscm/d increment sizes and reflect the raw underlying LPMC. These have been calculated based on the methodology used to derive the current entry UCAs, with no scaling applied for revenue recovery. These values indicate the potential reserve prices if the option is selected to adopt the underlying UCAs.

A comparison is shown with the current administered NTS exit prices, and it can be seen that there are some significant changes. It should be noted that the changes are not as a result of the exit reform proposals per se, but due to factors, which would have the same impact on administered prices if these were fully adjusted to reflect the latest LPMCs.

There are two significant drivers for these changes. Firstly, administered exit prices have not been subject to an unconstrained re-balancing for a number of years, with a smoothing mechanism operating to limit percentage increases and decreases, in accordance with the methodology. If an unconstrained re-balancing had been undertaken, then very significant changes in the exit prices would have occurred, and with the removal of the smoothing, these increases and decreases become visible. This is illustrated in Appendix A Table A2 which compares the current administered prices with the unscaled LPMC calculated in 2001, when the last partial constrained re-balancing was undertaken.

The second driver for the large changes is the significant change to the supply/demand background. There are major shifts expected in the pattern of entry and exit flows over the coming years, and this is reflected in the latest LPMCs produced by Transcost.

The combined effect of LNG imports in the South and West of the country, and forecast increased imports through the Bacton Interconnector and at Easington have generally resulted in significantly lower LPMCs in the South of England and Wales than currently prevail. The exception to this is the South West of England, which remains at the extremity of the NTS and with an expectation of increasing levels of demand due to the Langage power generation project LPMCs have increased significantly in this region.

Historically, LPMCs in the North of England and Scotland have resulted in NTS Exit capacity charges close to zero for Users in these regions as a result of the large capacity flows entering the NTS through the St. Fergus and Teesside terminals. LPMCs in these regions will increase significantly in comparison to the current charge levels as a result of the changing supply pattern noted above.

4.1.3 Implementation Options

If the option to use the latest LPMCs to derive the reserve prices is adopted, as illustrated in Appendix A, this would represent a very significant change from current administered exit prices. These would not, however, be liable for payment until 2008 when the first capacity

purchased in the long-term auctions is utilised. If the NTS exit flat capacity reserve prices were based on the latest LRMCs, then there is a long period before the cost increases and decreases would become active.

Whilst moving to up to date LRMC based reserve prices immediately is an option, alternative options must also be assessed when considering the requirement for the reserve prices to better achieve the relevant licence objectives of promoting efficiency, avoiding undue preference in the supply of transportation services, and promoting competition.

A new or modified capping or smoothing mechanism to limit any significant changes in the reserve prices may be felt to better achieve the relevant objectives. This could either be on a transitional basis or as an enduring component of the NTS exit flat capacity reserve pricing methodology. This could take the form of a fixed maximum and minimum percentage change, or a maximum and minimum absolute change. Another option would be a more explicit transitional phasing in of the new prices over a number of years e.g. between 2005/6 and 2007/8.

When considering transitional issues, a further factor to take into account is the interaction with entry capacity UCAs and the associated reserve prices. The current entry UCAs (with the exception of new entry points not identified in 2001), are based on LRMCs calculated at the same time as the LRMCs used in the last constrained re-balancing for the current administered exit prices. If NTS exit flat capacity UCAs are set using the latest LRMCs, then these would not be consistent with the current entry UCAs.

As the entry UCAs are expected to be reviewed at the end of the current price control period in 2007, then this would seem to be the most likely opportunity to align entry and exit UCAs in Transco's licence and hence entry and exit capacity reserve prices. New UCAs and reserve prices established in 2007 would become active in 2010, for long term exit capacity purchased in 2007.

If at some point Ofgem proposes to change the entry UCAs, the existing methodology for entry dictates that the reserve prices would move automatically to track the UCAs. There would therefore be no transitional phasing or smoothing mechanism without a change to the methodology. This would be the case whenever the entry UCAs change, which although not expected until 2007, could be modified earlier, following the necessary Ofgem consultation.

If UCAs and reserve prices are likely to change in 2007, an additional option to consider for NTS exit flat capacity reserve prices would be to delay the full impact of the exit changes until 2007. As with some of the other options, this would require a temporary de-coupling of exit capacity reserve prices from UCAs. With a delayed implementation, it could then be possible, prior to 2007, to review the methodology used to derive UCAs and reserve prices. This review could consider the potential step changes that would result if UCAs are recalculated each price control period, and the reduction in cost reflectivity arising from any smoothing or phasing. Again, we would welcome views on this potential approach.

In summary, there are three broad options for the NTS exit flat capacity reserve prices:

- Use the latest LRMC based UCAs
- Establish a capping or smoothing mechanism (either on a transitional or enduring basis) to move from the current administered prices towards the latest LRMCs/UCAs
- Align entry and exit UCAs/reserve prices by delaying the implementation of the latest LRMCs for exit reserve prices until new entry UCAs are reviewed

We would welcome views and comments on these reserve pricing options, and in particular whether any of the options achieve the relevant licence objectives to promote efficiency, avoid undue preference in the supply of transportation services, and to facilitate competition.

4.1.4 Auction Reserve Prices

At present, the NTS exit capacity methodology scales the LRMC's to ensure that administered exit capacity charges are consistent with target revenues. By moving to an auction process whereby NTS exit flat capacity charges are determined by the relevant bids from Users, revenue recovery will not necessarily correlate to the auction reserve prices derived from the LRMC analysis, due to the uncertainty of auction processes. Transco does not anticipate any scaling to achieve revenue recovery in the calculation of the UCAs, and although we would welcome views, we are not proposing to scale the UCAs to derive the auction reserve prices (although they would be inflated to current price levels using a measure of the Retail Price Index). The exit reserve prices and UCAs would therefore be a reflection of the incremental investment costs as modelled by Transcost, and this is consistent with the prevailing methodology for NTS entry capacity.

Transco expects that the nodal exit UCAs will be published in the NTS Gas Transporter Licence and hence would only change should the licence change.

Transco has proposed, through the NTS exit reform process, that NTS exit flat capacity will principally be offered on a firm basis as an annual product through Annual System Exit Capacity (ASExC) auctions, using the reserve prices described above. Additionally, a daily firm product will be made available and, to the extent that Transco determines unused baseline capacity is available, an interruptible daily capacity product. Transco believe that a price discount would be applicable to these products and Table 1 defines the possible discounts that could be applied. If, in the development of the exit reform proposals, alternative products are defined, then Transco will consider the pricing implications and consult with the industry accordingly.

Table 1: Reserve Price Discount

	Reserve Price Discount
Annual System Exit Flat Capacity (ASExC)	0%
Daily System Exit Flat Capacity (DSExC)	
Offered ahead of day	0%
Offered within day	33.3%
Daily Interruptible System Exit Flat Capacity (DISExC)	100%

Transco believes that firm annual NTS exit flat capacity (ASExC) and firm daily exit flat capacity (DSExC) made available before the gas day should not be discounted. Transco believes that discounting shorter-term firm products could create a disincentive to prospective purchasers from securing NTS exit flat capacity through longer-term annual offerings. This is of particular concern where Transco still has an obligation to offer the baseline level of capacity, and with limited competition at NTS offtakes.

Transco is not expecting to be under obligation to offer baseline Daily NTS exit flat capacity (DSExC) within day, and there would therefore be some uncertainty attached to the availability of this product. We therefore believe it would be appropriate to offer firm capacity within the gas day at a discount. To reflect the circumstances under which the product would be offered within day, where Transco is able to make the capacity available, we propose

offering the product at a discount of 33.3%. We believe this would achieve the relevant licence objectives, although once we have experience of the new exit arrangements, it may be necessary to review this price level.

It is expected that Interruptible NTS exit capacity offered at the day ahead, would be offered based on Transco's assessment of unused previously allocated capacity and any baseline capacity that is unsold. Consequently, Transco propose that interruptible NTS exit flat capacity could be discounted by 100% on the grounds that there would be uncertainty of when the product would be available and to avoid charging twice for the same capacity.

4.2 Interruptible Capacity

At present, for supply points that have been nominated by a shipper as interruptible, the shipper will not pay the NTS exit capacity charge and, where Transco nominates a supply point to be interrupted for more than 15 days in a particular year, there is a transportation charge credit. Under the enduring exit reform proposals, there would not be an annual interruptible NTS exit flat capacity product from October 2008. Interruptible NTS exit flat capacity would be offered as a daily product only, on a day-ahead basis subject to Transco's assessment of unused previously allocated capacity and unsold baseline capacity. Transco is subject to licence incentives in respect of its System Operator (SO) activities, which include the management of NTS exit capacity constraints. Accordingly, the transitional arrangements whereby Transco makes available a transportation credit to shippers for supply point interruption in excess of 15 days within a formula year is no longer applicable. Transco therefore proposes that these transportation credits would cease from October 2008 and we intend to amend the methodology accordingly.

4.3 Constrained LNG

Shippers that currently book one of the constrained Liquefied Natural Gas (LNG) storage services, undertake an obligation to provide transmission support gas to Transco on days of very high demand. In recognition of this, shippers receive a credit in respect of minimum booked storage deliverability. The credit is deducted from the charge for the storage service. From October 2008, the current constrained LNG arrangements will change in that Transco will tender for transmission support from Users offering competing supply/demand solutions. Transco therefore propose to cease payment of the current constrained LNG transportation credit from this date, and we intend to amend the methodology accordingly.

4.4 Incremental NTS Exit Capacity

At present, Users do not have the opportunity to signal the value of an incremental NTS exit capacity product. Instead, Users are required to sign up to an ARCA when requesting incremental NTS exit flat capacity above the baseline quantity that is available.

As part of an NTS exit capacity investment incentive it is anticipated that Transco will be required to produce an incremental NTS exit flat capacity release methodology statement. In addition to establishing the process for releasing incremental exit capacity, it would also be necessary to determine the associated pricing methodology.

Transco believes it would be appropriate for incremental NTS exit flat capacity to be available from October 2008 based on the existing NTS entry capacity release pricing methodology of Long Run Incremental Costs (LRICs). This methodology for NTS entry capacity has been approved by the Authority and meets the relevant licence objectives. Transco believes the methodology, which is described below, to be equally applicable for exit.

We expect to publish the final incremental pricing methodology as a schedule to the incremental exit capacity release methodology statement.

4.4.1 Long Run Incremental Cost

The objective of the Long Run Incremental Cost (LRIC) methodology is to produce a range of price steps that affords Users an opportunity to reveal their demand for capacity, but which also reflects the estimated investment costs potentially incurred by Transco for providing capacity at levels beyond the baseline quantities identified in the Gas Transporter Licence. The underlying cost assumptions are forward looking and are informed by present day cost estimates for pipe laying and associated activities to provide new capacity.

The LRIC approach derives entry to exit costs that represent the cost of providing capacity to transport increments of gas through the NTS. The LRIC methodology is broadly similar to the LRMC methodology, except that whilst LRMC considers only one increment size, LRIC considers various increment sizes.

The same Transcost model used to calculate LRMCs for baseline NTS exit capacity can be used to calculate LRICs. The initial Transcost network is based on the supply/demand match set out in Transco's Base Plan Assumptions from the 10 Year Statement, and the reinforcement plans that are derived from it. Transcost calculates the additional investment required in new pipelines and/or compressors to support a sustained incremental increase in flow along each route. The more constrained a route is, in terms of capacity, or the longer a route is, the higher will be the level of investment necessary.

From time to time, demand may emerge for exit capacity at new offtakes. In this instance, Transco believes that it would again be appropriate to use the methodology that applies for new system entry points. Essentially, this is consistent with the methodology for existing entry points, except that there are two main differences:

- Price steps at new offtakes will commence at an initial price of zero.
- In the case of Transco building any connecting pipe, the cost of the extension will be added to the general reinforcement costs within the price schedule. This will generally result in a downward sloping price curve (due to the economies of scale) rather than the more usual upward sloping price curve.

5. Questions for Consultation

This discussion paper has set out some considerations for NTS baseline and incremental exit flat capacity charging from the time of NTS exit reform implementation. It also discusses other changes to the NTS exit flat capacity pricing methodology required as a consequence of the exit reform developments. We would be interested in the views of respondents on the issues outlined above and, in particular:

- Which of the options for NTS exit flat capacity reserve prices better achieves the relevant licence objectives of promoting efficiency, avoiding undue preference in the supply of transportation services, and promoting competition:
 - Whether the LRMC based licence defined UCAs should be the basis for setting NTS exit flat capacity auction reserve prices.
 - Whether the NTS exit capacity reserve pricing methodology should include a capping or phasing mechanism to deal with significant change.
 - Whether any transitional measures should be considered for the introduction of the UCA based reserve prices.
- Whether daily NTS exit flat capacity should be discounted by 33.3% when made available on the gas day.
- Whether forecast unused firm or unsold baseline exit capacity, when offered as interruptible NTS exit flat capacity at the day ahead stage, should receive a 100% discount on the baseline capacity reserve price.

- Whether it is appropriate to adopt an incremental NTS exit flat capacity pricing methodology based on the existing entry arrangements, based on the methodology of LRIC, for both existing and new offtakes.
- The proposal to cease interruptible transportation credits from October 2008.
- The proposal to cease Constrained LNG transportation credits from October 2008.

If, following responses to this discussion paper, Transco intends to propose a change to its methodology for setting NTS transportation charges, including reserve prices, it will issue a Pricing Consultation paper on the proposed change.

The closing date for submission of your response is **21st April 2005**.

Your response should be e-mailed to craig.maloney@ngtuk.com or alternatively by post to Craig Maloney, Commercial Frameworks, National Grid Transco, NGT House, Gallows Hill, Warwick, CV34 6DA. If you wish to discuss any matter relating to this charging methodology consultation then please call on 01926 656213.

It would be helpful if your response could be copied to Ofgem by post to Sonia Brown, Director – Transportation, Ofgem, 9 Millbank, London, SW1P 3GE or by e-mail to sonia.brown@ofgem.gov.uk.

Responses to this paper will be incorporated either within a Pricing Discussion conclusion report or, if a formal change to the methodology is to be pursued, within the relevant Pricing Consultation paper.

Should you wish your response to be treated as confidential, please mark it clearly to that effect.

Appendix A

Table A1, Illustrative Baseline NTS Exit Flat Capacity Auction Reserve Prices

LDZ	Network	Offtake	*6 mscm Illustrative 2008 Charge	*2.834 mscm Illustrative 2008 Charge
EA1	East of England	Bacton	0.0002	0.0002
EA1	East of England	Brisley	0.0002	0.0002
EA1	East of England	Peterborough Eye	0.0002	0.0002
EA1	East of England	West Winch	0.0002	0.0002
EA2	East of England	Great Wilbraham	0.0006	0.0006
EA2	East of England	Roundham Heath	0.0006	0.0006
EA3	East of England	Yelverton	0.0002	0.0002
EA4	East of England	Cambridge	0.0006	0.0006
EA4	East of England	Matching Green	0.0008	0.0008
EA4	East of England	Royston	0.0008	0.0007
EA4	East of England	Whitwell	0.0018	0.0014
EM1	East of England	Thornton Curtis	0.0041	0.0063
EM1	East of England	Walesby	0.0002	0.0002
EM2	East of England	Blyborough	0.0002	0.0002
EM2	East of England	Gosberton	0.0002	0.0002
EM2	East of England	Kirkstead	0.0002	0.0002
EM2	East of England	Silk Willoughby	0.0002	0.0002
EM2	East of England	Sutton Bridge	0.0002	0.0002
EM3	East of England	Alrewas	0.0040	0.0035
EM3	East of England	Blaby	0.0035	0.0036
EM3	East of England	Drointon	0.0029	0.0031
EM3	East of England	Tur Langton	0.0037	0.0037
EM4	East of England	Caldecott	0.0005	0.0007
EM4	East of England	Market Harborough	0.0007	0.0008
NE1	North of England	Asselby	0.0016	0.0017
NE1	North of England	Baldersby	0.0054	0.0063
NE1	North of England	Burley Bank	0.0052	0.0060
NE1	North of England	Pannal	0.0052	0.0060
NE1	North of England	Rawcliffe	0.0013	0.0015
NE1	North of England	Towton	0.0049	0.0054
NE2	North of England	Ganstead	0.0002	0.0002
NE2	North of England	Paul South	0.0018	0.0034
NE2	North of England	Pickering	0.0002	0.0002
NE3	North of England	Paul North	0.0002	0.0002
NO1	North of England	Bishop Auckland	0.0069	0.0064
NO1	North of England	Coldstream	0.0104	0.0117
NO1	North of England	Corbridge	0.0069	0.0064
NO1	North of England	Cowpen Bewley	0.0069	0.0064
NO1	North of England	Elton	0.0061	0.0065
NO1	North of England	Guyzance	0.0069	0.0064
NO1	North of England	Humbleton	0.0069	0.0064
NO1	North of England	Little Burdon	0.0061	0.0065
NO1	North of England	Saltwick	0.0093	0.0064
NO1	North of England	Thrintoft	0.0057	0.0063
NO2	North of England	Keld	0.0070	0.0062

LDZ	Network	Offtake	*6 mscm Illustrative 2008 Charge	*2.834 mscm Illustrative 2008 Charge
NO2	North of England	Melkingthorpe	0.0070	0.0062
NO2	North of England	Tow Law	0.0067	0.0062
NO2	North of England	Wetheral	0.0067	0.0062
NT1	London	Winkfield NT	0.0191	0.0181
NT2	London	Horndon	0.0026	0.0007
NT2	London	Luxborough Lane	0.0015	0.0021
NT3	London	Peters Green	0.0075	0.0053
NW1	North West	Blackrod	0.0157	0.0162
NW1	North West	Lupton	0.0070	0.0062
NW1	North West	Samlesbury	0.0136	0.0138
NW2	North West	Audley NW	0.0049	0.0049
NW2	North West	Eccleston	0.0219	0.0190
NW2	North West	Holmes Chapel	0.0054	0.0053
NW2	North West	Malpas	0.0147	0.0169
NW2	North West	Mickle Trafford	0.0194	0.0183
NW2	North West	Partington off	0.0070	0.0062
NW2	North West	Warburton	0.0070	0.0062
NW2	North West	Weston Point	0.0194	0.0183
SC1	Scotland	Aberdeen	0.0067	0.0062
SC1	Scotland	Balgray	0.0067	0.0062
SC1	Scotland	Careston	0.0067	0.0062
SC1	Scotland	Kinnockie	0.0067	0.0062
SC1	Scotland	Mossie	0.0067	0.0062
SC1	Scotland	Pitcairn	0.0067	0.0062
SC1	Scotland	St Fergus	0.0067	0.0062
SC2	Scotland	Armadale	0.0067	0.0062
SC2	Scotland	Broxburn	0.0237	0.0128
SC2	Scotland	Hume	0.0104	0.0117
SC2	Scotland	Soutra	0.0123	0.0117
SC4	Scotland	Bathgate	0.0067	0.0062
SC4	Scotland	Drum	0.0067	0.0062
SC4	Scotland	Glenmavis offtake	0.0067	0.0062
SC4	Scotland	Langholm	0.0067	0.0062
SC4	Scotland	Lockerbie	0.0067	0.0062
SC4	Scotland	Nether Howcleugh	0.0067	0.0062
SC4	Scotland	Stranraer	0.0067	0.0062
SE1	South of England	Farningham	0.0038	0.0017
SE1	South of England	Shorne	0.0030	0.0009
SE1	South of England	Tatsfield	0.0056	0.0043
SE2	South of England	Winkfield SE	0.0191	0.0181
SO1	South of England	Hardwick	0.0059	0.0049
SO2	South of England	Braishfield	0.0183	0.0159
SO2	South of England	Ipsden	0.0124	0.0106
SO2	South of England	Mappowder	0.0342	0.0289
SO2	South of England	Winkfield SO	0.0191	0.0181
SW1	Wales and the West	Evesham	0.0017	0.0010
SW1	Wales and the West	Fiddington	0.0016	0.0010
SW1	Wales and the West	Ross SW	0.0020	0.0013
SW2	Wales and the West	Cirencester	0.0179	0.0160

LDZ	Network	Offtake	*6 mscm Illustrative 2008 Charge	*2.834 mscm Illustrative 2008 Charge
SW2	Wales and the West	Easton Grey	0.0128	0.0113
SW2	Wales and the West	Ilchester	0.0367	0.0324
SW2	Wales and the West	Little Drew	0.0153	0.0136
SW2	Wales and the West	Pucklechurch	0.0174	0.0160
SW2	Wales and the West	Seabank LDZ	0.0227	0.0226
SW3	Wales and the West	Aylesbeare	0.0521	0.0472
SW3	Wales and the West	Kenn	0.0579	0.0518
SW3	Wales and the West	Lyneham	0.0672	0.0611
WA1	Wales and the West	Maelor	0.0205	0.0239
WA2	Wales and the West	Dowlais	0.0024	0.0018
WA2	Wales and the West	Dyffryn Clydach	0.0024	0.0018
WA2	Wales and the West	Gilwern	0.0024	0.0018
WM1	West Midlands	Aspley	0.0036	0.0037
WM1	West Midlands	Audley	0.0049	0.0049
WM1	West Midlands	Milwich	0.0031	0.0033
WM2	West Midlands	Alrewas WM	0.0016	0.0015
WM2	West Midlands	Austrey	0.0014	0.0011
WM2	West Midlands	Shustoke	0.0065	0.0048
WM3	West Midlands	Leamington	0.0017	0.0010
WM3	West Midlands	Lower Quinton	0.0017	0.0010
WM3	West Midlands	Ross WM	0.0020	0.0013
WM3	West Midlands	Rugby	0.0017	0.0010
WM3	West Midlands	Stratford Upon Avon	0.0017	0.0010

Direct Connect	*6 mscm Illustrative 2008 Charge	*2.834 mscm Illustrative 2008 Charge
AM Paper	0.0070	0.0062
Bacton	0.0001	0.0002
Baglan Bay PG	0.0024	0.0018
BASF	0.0069	0.0064
BP Grangemouth	0.0067	0.0062
BP Saltend HP	0.0002	0.0002
Bridgewater Paper	0.0194	0.0183
Brigg PG	0.0002	0.0002
Brimsgate PG	0.0008	0.0008
Brunner Mond	0.0080	0.0071
Corby PG	0.0005	0.0007
Coryton PG	0.0026	0.0007
Damhead Creek	0.0030	0.0009
Deeside PG	0.0194	0.0183
Didcot PG	0.0114	0.0093
Goole Glass	0.0011	0.0010
Great Yarmouth PG	0.0002	0.0002
ICI Runcorn (Castner Kellner)	0.0194	0.0183
Immingham PG	0.0041	0.0063
Keadby PG	0.0006	0.0004
Kemira chp	0.0194	0.0183
Kings Lynn PG	0.0002	0.0002
Little Barford PG	0.0006	0.0006
Longannet PG	0.0067	0.0062
Moffat I/C	0.0067	0.0062
Peterhead PG	0.0067	0.0062
Phillips Seal Sands	0.0069	0.0065
Rocksavage PG	0.0194	0.0183
Rye House PG	0.0008	0.0008
Saltend PG	0.0002	0.0002
Sappi Paper Mill	0.0136	0.0138
Seabank PG	0.0221	0.0225
Shotton Paper	0.0194	0.0183
Spalding PG	0.0002	0.0002
Stallingborough	0.0002	0.0002
Sutton Bridge PG	0.0002	0.0002
Teesside Hydrogen	0.0069	0.0065
Terra Billingham	0.0069	0.0064
Terra Severnside	0.0218	0.0219
Thornton Curtis	0.0002	0.0002
Zeneca	0.0069	0.0065

* Illustrative p/pdkWh/d charges for 2008 calculated using the existing LRMC methodology to calculate NTS Exit Flat Capacity charges on a nodal basis. The LRMC output was solved with a minimum 0.0001p/pdkWh/d constraint.

Table A2. Comparison of current administered NTS Exit Flat Capacity charges with 2001 unscaled LRMCs

LDZ	Network	2001 Unscaled LRMC	April 2004 Administered Prices (p/kWh/day)	Absolute Difference
EA1	East of England	0.0005	0.0026	0.0021
EA2	East of England	0.0067	0.0095	0.0028
EA3	East of England	0.0001	0.0034	0.0033
EA4	East of England	0.0060	0.0102	0.0042
EM1	East of England	0.0043	0.0028	-0.0015
EM2	East of England	0.0004	0.0006	0.0002
EM3	East of England	0.0065	0.0073	0.0008
EM4	East of England	0.0020	0.0059	0.0039
NE1	North of England	0.0001	0.0001	0.0000
NE2	North of England	0.0017	0.0019	0.0002
NE3	North of England	0.0004	0.0008	0.0004
NO1	North of England	0.0001	0.0001	0.0000
NO2	North of England	0.0063	0.0007	-0.0056
NT1	London	0.0169	0.0193	0.0024
NT2	London	0.0063	0.0125	0.0062
NT3	London	0.0121	0.0139	0.0018
NW1	North West	0.0112	0.0078	-0.0034
NW2	North West	0.0081	0.0069	-0.0012
SC1	Scotland	0.0001	0.0001	0.0000
SC2	Scotland	0.0019	0.0009	-0.0010
SC4	Scotland	0.0021	0.0001	-0.0020
SE1	South of England	0.0049	0.0102	0.0053
SE2	South of England	0.0169	0.0193	0.0024
SO1	South of England	0.0093	0.0134	0.0041
SO2	South of England	0.0182	0.0183	0.0001
SW1	South of England	0.0042	0.0075	0.0033
SW2	South of England	0.0124	0.0143	0.0019
SW3	South of England	0.0324	0.0283	-0.0041
WA1	Wales and the West	0.0115	0.0100	-0.0015
WA2	Wales and the West	0.0160	0.0172	0.0012
WM1	Wales and the West	0.0051	0.0061	0.0010
WM2	Wales and the West	0.0040	0.0066	0.0026
WM3	Wales and the West	0.0040	0.0073	0.0033

Direct Connect	2001 Unscaled LRMC	April 2004 Administered Prices (p/KWh/day)	Absolute Difference
AM Paper	0.0064	0.0032	-0.0032
Bacton	0.0001	0.0026	0.0025
Baglan Bay PG	0.0218	0.0195	-0.0023
BASF	0.0001	0.0001	0.0000
BP Grangemouth	0.0011	0.0001	-0.0010
BP Saltend hp	0.0004	0.0008	0.0004
Bridgewater Paper	0.0128	0.0092	-0.0036
Brigg PG	0.0004	0.0005	0.0001
Brimsgate PG	0.0062	0.0113	0.0051
Brunner Mond	0.0068	0.0032	-0.0036
Corby PG	0.0019	0.0042	0.0023
Coryton PG	0.0029	0.0079	0.0050
Deeside PG	0.0128	0.0092	-0.0036
Didcot PG	0.0126	0.0144	0.0018
Great Yarmouth PG	0.0001	0.0026	0.0025
ICI Runcorn (Castner Kellner)	0.0128	0.0094	-0.0034
Keadby PG	0.0004	0.0001	-0.0003
KemiraInce CHP	0.0128	0.0094	-0.0034
Kings Lynn PG	0.0003	0.0025	0.0022
Little Barford PG	0.0034	0.0052	0.0018
Longannet PG	0.0011	0.0001	-0.0010
Moffat I/C	0.0056	0.0001	-0.0055
Peterhead PG	0.0001	0.0001	0.0000
Phillips Seal Sands	0.0001	0.0001	0.0000
Rocksavage PG	0.0128	0.0094	-0.0034
Rye House PG	0.0062	0.0113	0.0051
Saltend PG	0.0004	0.0008	0.0004
Sappi Paper Mill	0.0103	0.0078	-0.0025
Seabank PG	0.0115	0.0133	0.0018
Shotton Paper	0.0128	0.0092	-0.0036
Sutton Bridge PG	0.0004	0.0018	0.0014
Terra Billingham	0.0001	0.0001	0.0000
Terra Severnside	0.0115	0.0137	0.0022
Thornton Curtis	0.0004	0.0005	0.0001
Zeneca	0.0001	0.0001	0.0000