

CONSULTATION DOCUMENT

Modification Proposals to the Gas Transmission Transportation Charging Methodology

NTS GCM 05:

NTS Exit (Flat) Capacity & Exit Reform

18th July 2008

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1 Executive Summary

This document is issued by National Grid in its' role as Gas Transporter Licence holder in respect of the NTS ("National Grid").

This document sets out for consultation proposals for amending the Gas Transmission Transportation Charging Methodology (the "NTS Charging Methodology") in respect of the introduction of NTS Exit (Flat) Capacity Charges and the removal of interruptible credits. These proposals are being brought forward in relation to the 0116 (excluding 0116A) and 0195 suite of UNC Modification Proposals which are seeking to introduce NTS Exit Reform.

The NTS Charging Methodology proposals within this document cover all Exit Reform UNC Modification Proposal. It is National Grid's intention to make final proposals in light of responses received and in view of which UNC Modification Proposal is directed for implementation.

The closing date for submission of your responses to this consultation is **Friday 12th September 2008**

GCM05: National Grid proposes through this consultation document that:

- A consistent approach to the setting of prices for NTS Exit (Flat) Capacity is taken for all UNC Modification Proposal other than 0116A, which requires no Charging Methodology changes.
- A consistent approach shall be taken for the generation of auction reserve prices or indicative prices as required
- Nodal, offtake specific, NTS Exit (Flat) Capacity prices are set
- Interruption credits are removed from the NTS Charging Methodology
 - Bilateral contracts, leading to surrender charges, would result from the UNC Modification Proposals
- NTS Exit (Flat) Capacity Prices are calculated using the prevailing Charging Methodology for NTS Exit Capacity Prices
- The Transportation Model is used for estimating Long Run Marginal Costs (LRMCs) for the purposes of determining Prevailing/Enduring NTS Exit (Flat) Capacity prices and reserve prices for annual and daily firm NTS Exit (Flat) Capacity auctions based on a single year network model and supply/demand forecast for the relevant Gas Year;
 - For Prevailing/Enduring NTS Exit (Flat) Capacity, charges will be set for the forthcoming Gas Year based on the supply and demand data and network model for that year;
 - For annual reserve prices, the reserve price for Gas Year N will be set based on the supply and demand data and network model for year N;
 - For daily firm reserve prices, the reserve price will be set based on the Prevailing/Enduring NTS Exit (Flat) Capacity charge in place for that Gas Day.
 - For daily interruptible/off-peak reserve prices, the reserve price will be zero.

- Defined inputs to the Transportation Model
 - Network ~ the network model comprising the nodes and pipe lengths would represent the Year of capacity release. The model would represent committed projects as indicated by the Ten Year Statement. Where network models are generated for indicative prices for the first application sufficient pipe to allow connection of all new entry and exit points would be included.
 - Supply Data ~ Ten Year Statement (No Change)
 - Supply Balancing ~ Merit order (No Change ~ subject to review)
 - Demand Data ~ flow and capacity data will be based on Prevailing/Enduring NTS Exit (Flat) Capacity holding. Bi-directional system points will be assumed to be in supply mode and hence will have a zero exit flow. Sites representing incremental capacity release will have the capacity level (but not the flow level) capped at the obligated level as this is the level of capacity that represents TO revenue; capacity in excess of this level represents SO revenue
 - Target revenue ~ TO revenue calculated in accordance with the Charging Methodology and NTS Licence (No Change)
 - Expansion factor ~ calculated in gas year N-4 based on the costs of constructing NTS capacity for 1st October in gas Year N. (e.g. the expansion factor for gas year starting 1st October 2012 would be set in the summer of 2009 and would apply for setting prices for all applications and auctions for gas year starting 1st October 2012 including daily auctions)
 - Anuitisation factor ~ Implied by the NTS Licence (allowed rate of return and 40 year anuitisation period) at the time of setting prices. (No Change)

Implementation

It is proposed that these arrangements are implemented with effect from the date of implementation of the relevant UNC Modification Proposal other than UNC Modification Proposal 0116A for which no changes are anticipated. Implementation of a proposal other than UNC 0116A would require an initial application in the summer of gas year N for capacity from 1st October in gas year N=4 e.g. summer 2009 for gas year starting 1st October 2012. As a consequence there would be a phased implementation as indicated by the timelines in Appendix C - Timelines.

Indicative Prices

Indicative prices for a range of firm capacity scenarios are included in Appendix B – Indicative NTS Exit (Flat) Capacity Prices. These prices are applicable for all UNC proposals other than UNC 0116A. The scenarios reflect sensitivity analysis of potential capacity bookings, which is a key determinant of prices.

Future Proposals

Further proposals might be required to cover NTS Exit Commodity charges. A negative TO Exit Commodity Charge may be required to manage over-recovery from daily exit capacity auctions.

2 Introduction

- 2.1 This document is issued by National Grid in its' role as Gas Transporter Licence holder in respect of the NTS ("National Grid").
- 2.2 This document sets out for consultation proposals for amending the Gas Transmission Transportation Charging Methodology (the "NTS Charging Methodology") in respect of the introduction of NTS Exit (Flat) Capacity Charges and the removal of interruptible credits. These proposals are being brought forward in relation to the 0116 (excluding 0116A) and 0195 suite of UNC Modification Proposals which are seeking to introduce NTS Exit Reform.
- 2.3 There are 7 UNC Modification Proposals under consideration based on two initial proposals and subsequent alternate and variants.
- 2.4 The following table outlines the key differences between the proposals in terms of potential impact on charge setting

Number	User	Long Term Product Name	Annual Auction or Allocation	Interruptible	Flex product Auctioned?	General
0116A	EON	NA	Application	Interruptible sites, no change to current UNC	No	Status Quo
0116V	NG	'Prevailing' Capacity	Auction	Auction on D-1. Available amount made up of UIOLI and discretionary release	Yes	
0116BV	RWE				Yes	Same as 116V but with tolerance on cumulative measurement from 06:00 to 22:00 increased from 1.5% to 3%.
0116CVV	BGT				No	As 116V but no flex auctions.
0116VD	SGN				Yes	Same as Proposal 116BV but with the concept of negative flexibility
0195	RWE				No	
0195AV	EON	'Enduring' Capacity	Application	Held on D-1 but on days where forecast demand at 15.00 D-1 is less than 80% of 1 in 20 peak day demand the amount available also includes Maximum Supply Point Offtake rate * 24 – Firm sold.	No	Off Peak service

- 2.5 0116A is essentially maintaining the status quo and National Grid does not believe that any NTS Charging Methodology modifications would be required should this proposal be directed for implementation.

- 2.6 In regards to the primary 'flat' capacity product the remaining proposals introduce four capacity products albeit with slightly different arrangements and this document covers the pricing of those products. The products are;
- Prevailing/Enduring NTS Exit (Flat) Capacity
 - Annual NTS Exit (Flat) Capacity
 - Daily NTS Exit (Flat) Capacity
 - Daily Interruptible / Off-peak NTS Exit (Flat) Capacity
- 2.7 The secondary NTS Exit (flexibility) Capacity product, which is introduced under a number of these UNC Modification Proposals, would have a zero reserve price as a consequence of the non-veto of NTS Charging Methodology proposal GCM04.
- 2.8 Changes to NTS Exit commodity charging arrangements may be required subject to which proposal is implemented.

Prevailing/Enduring NTS Exit (Flat) Capacity

- 2.9 Users will be able to apply for such rights in Summer of Gas Year Y for Gas Year Y+4 onwards. This product is the same under all proposals (excluding 116A) and hence a consistent pricing approach can be adopted although there are some differences in terms of registration and initiation and the name of the product.

Annual NTS Exit (Flat) Capacity

- 2.10 Users will be able to bid or apply for such rights in Summer of Gas Year Y for Gas Years Y+1, Y+2 and Y+3 via an annual process. This product is the same under all proposals (excluding 116A) and hence a consistent pricing approach can be adopted although under the 116 suite of proposals the price would be an auction reserve price and under the 195 proposals the price would be an administered price.

Daily NTS Exit (Flat) Capacity

- 2.11 Users will be able to bid for such rights ahead of and during the Gas Day via daily auctions. This product is the same under all proposals (excluding 116A) and hence a consistent pricing approach can be adopted.

Daily Interruptible/Off-Peak NTS Exit (Flat) Capacity

- 2.12 . Users will be able to bid for Interruptible NTS Exit (Flat) Capacity ahead of the Gas Day via daily auctions. This product is the same under all proposals (excluding 116A) however the quantities released might vary. A consistent pricing approach could be adopted however National Grid must be mindful of its obligations to factor in the likelihood of interruption under EU regulations.
- 2.13 Under 116A, Interruptible site status would remain and there would be no change to current UNC arrangements.
- 2.14 Under 195AV, "Daily Off-peak NTS Exit (Flat) Capacity" would be made available. This would be auctioned on D-1 but only on days where forecast demand at 13.30 D-1 is less than 80% of 1 in 20 peak day demand. The amount available would include the Maximum Supply Point Offtake rate multiplied by 24 minus Firm sold.

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- 2.15 Under the remaining proposals, "Daily Interruptible NTS Exit (Flat) Capacity" would be released. Users will be able to bid for such rights ahead of the Gas Day via daily auctions. The available amount would be made up of "use it or lose it" (UIOLI) and discretionary release.

3 Background

- 3.1 Three National Grid gas charging discussion papers (GCD01, GCD02 & GCD03) were issued and consulted on between October and November 2006 in relation to the UNC 0116 Modification Proposal and variants.
- **NTS GCD 01** covered NTS Exit (Flat) Capacity and the generation of Prevailing NTS Exit (capacity) Capacity prices and Annual and Daily reserve prices.
 - **NTS GCD 02** covered NTS Exit (Flexibility) Capacity and Commodity including reserve prices for annual and daily auctions and a new SO Flexibility Commodity Charge.
 - **NTS GCD 03** covered TO under and over-recovery mechanisms
- 3.2 As a consequence of the discussions and given the potential timelines for the first NTS Exit (flexibility) Capacity auctions, the GCM04 pricing proposal was issued and consulted on over February and March 2007. GCM04 proposed a zero reserve price for NTS Exit (Flexibility) Capacity for the annual and daily auctions. Following the submission of a report containing this proposal to the authority, GCM04 was not vetoed and hence now forms part of the NTS Charging Methodology. This section of the methodology has subsequently become redundant due to the successful appeal of the Authority decision to direct implementation of UNC Modification Proposal 0116V but would become active if there were a direction to implement a proposal including NTS Exit (flexibility) capacity auctions.
- 3.3 Respondents to GCD01 were supportive of the setting of NTS TO Exit (Flat) Capacity charges based on the Transportation model approach. Support for the approach was subject to the adjustment of Exit Capacity charges and reserve prices to aim to recover the total TO Exit Capacity target allowed revenue through NTS Exit (Flat) Capacity charges. National Grid believes that it can be achieved provided that any revenue from the release of NTS Exit (Flexibility) Capacity is recycled through a negative TO Exit Commodity charge.
- 3.4 The TO Exit Commodity charge might only be required to recycle any Flexibility revenue and to offset under or over recovery arising due to NTS Exit (Flat) Capacity auction related forecast error. A TO Exit Commodity charge may therefore only be required for the UNC 0116 Modification Proposals other than 0116A.

4 Discussion and Issues

The Licence & Revenue Foregone

- 4.1 Interruptible supply points do not currently attract NTS Exit Capacity charges
- 4.2 Definition: 'Charges Foregone' are defined within the NTS Transportation Licence as those NTS Exit Capacity charges that Interruptible supply points would pay if they were Firm
- 4.3 Charges Foregone are (up to exit reform) included within the NTS Licence as SO allowed revenue and as TO actual (collected) revenue i.e. an increase in SO allowed revenue is cancelled out by an effective reduction in TO allowed exit revenue
- 4.4 Post Exit Reform there would be no 'Charges Foregone'. In theory this means that NTS Exit (Flat) Capacity charges could remain unchanged, if all 'interruptible' demand converted to firm. In practise there may still be a change in prices as a consequence of the geographical redistribution of costs caused by higher supplies required to meet higher demand within the model. Indicative prices for a range of firm capacity levels are included in Appendix B – Indicative NTS Exit (Flat) Capacity Prices.
- 4.5 There would be a consequential decrease in SO Commodity charges relative to the prevailing arrangements as a result of the removal of 'revenue foregone' as allowed SO revenue. The impact of the removal of revenue foregone on the SO Commodity charge would be a reduction of 0.0030 p/kWh based on the data used for the indicative charges in Appendix B – Indicative NTS Exit (Flat) Capacity Prices.
- 4.6 Exit reform related Licence changes are detailed in Appendix A – Licence Implications of Exit Reform.

Transportation Model Inputs

- 4.7 The options for setting NTS Exit (Flat) Capacity charges were discussed with the industry via GCD01 and at the Gas Transmission Methodologies Forum (TCMF). GCD01 set out a number of options with support only expressed for the use of the Transportation Model. National Grid continues to believe that the use of the Transportation Model to set NTS Exit (Flat) capacity charges is the most appropriate method and this section covers the Transportation Model input data that would be required.
- 4.8 Change to Transportation Model input data
 - Network
 - The network model comprising the nodes and pipe lengths should represent the Year of capacity release. The model should represent committed projects as indicated by the Ten Year Statement. Where network models are generated for indicative prices for the first application sufficient pipe to allow connection of all new entry and exit points would need to be included.

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- Supply
 - Using supply data from the Ten Year Statement would be consistent with the prevailing NTS Charging Methodology.
 - Demand
 - Baseline exit capacity was considered but may overstate exit flows. Booked exit capacity was agreed as the most appropriate option with forecast/initial allocation in the transitional period for indicative charges until commitment occurs. DNs may procure more exit capacity than the peak forecast flow to manage operational flexibility however if this became material an alternative approach could be investigated such as scaling capacity to meet forecast demand.
 - Balancing S&D
 - This proposal will be based on the prevailing methodology; a merit order approach, where supplies are used one-by-one to reach the modelled demand level. This is consistent with the planning approach. Alternative options, such as scaling all or groups of supplies may lead to more stable prices and will be investigated. Any charging methodology change brought forward in this area to change the prevailing exit charging methodology would then apply to the enduring charging methodology. If supplies are insufficient to meet demand, ICHUK forecast flows are increased up to ICHUK capability to achieve a supply & demand match.
 - Expansion Factor
 - Calculation in the year of commitment would allow prices to be forecast more easily hence increasing transparency and would be consistent with the construction time-line.
 - Anuitisation Factor
 - The anuitisation factor should be that implied by the Licence. There is an issue in that indicative or reserve prices will be generated in one price control period for the following price control period however the assumption that no change would be made seem appropriate as any change would be speculative. This will also keep allowed revenue inline with the anuitisation factor.

Treatment of Bi-directional System Points

- 4.9 The underlying assumption will be that bi-directional system points will be treated as supplies within the model but booked exit capacity will be included to ensure that prices can be adjusted appropriately to recover allowed revenue.
- 4.10 If bi-directional sites were to be included within the Transportation Model as exit flows there is a risk that the costs associated with local pipe work (i.e. those pipes that would flow towards the system point in exit mode but away from the system point in entry mode) would be included in both the entry and the exit prices hence leading to double counting.
- 4.11 National Grid will monitor the operation of bi-directional sites and keep this assumption under review.

Price Control Boundary Issues

4.12 Under 0116 and variants (excluding 0116A), annual reserve prices would be required. At times, these will be set for exit capacity in the following price control period and hence the allowed revenue will be unknown. In this scenario the allowed revenue, for the purposes of price setting only, could be calculated from rolling forward the prevailing price controls.

Interruption

4.13 Interruption credits are currently paid based on 1/15th of the firm capacity charges that would otherwise apply at an interruptible exit point, for each day of interruption in excess of 15 days.

4.14 Interruption credits would be removed as part of both the 0116 and 0195 suite of UNC Modification Proposals, other than 0116A, and hence this aspect would be removed from the NTS Charging Methodology should a UNC Modification Proposal, other than 0116A, be directed for implementation. Alternative future firm curtailment requirements for capacity management purposes would be contracted for bi-laterally and the arrangements for payment are covered by the UNC Modification Proposals.

4.15 Daily Interruptible NTS Exit (Flat) Capacity would be released on either a use it or lose it (UIOLI) or discretionary basis with a further 'off-peak' product being offered under UNC 0195AV. As the cost of making the capacity available would already have been met, a zero reserve price should reflect the costs incurred and be consistent with the Licence relevant objectives for the Charging Methodology. No payment would be made for the scale back of Daily Interruptible / Off-peak NTS Exit (Flat) Capacity.

Offtake Specific v Exit Zone Prices

4.16 As a consequence of the UNC Modification Proposals, other than 0116A, NTS exit zone prices would no longer be set and prices would be set on an offtake specific basis. Capacity at DN offtakes would be acquired and paid for by the DNOs and the DNOs would need to recover these costs through their transportation charges.

4.17 Indicative NTS Exit (Flat) Capacity prices have been generated on a flow weighted average NTS exit zone basis, in accordance with the prevailing methodology for setting charges for DN exit points, but purely for comparison with prevailing NTS Exit Capacity prices. National Grid anticipates that DNOs would bring forward DN Charging Methodology proposals as required to implement the consequences of Exit Reform. There is the potential for NTS exit zones to be retained within the DN Charging Methodology.

SO & TO Commodity

4.18 Following on from NTS Charging Methodology discussion paper NTS GCD03, it is National Grid's intention to raise a separate NTS Charging Methodology proposal to cover changes to commodity arrangements taking into account a later review of storage and shorthaul commodity charging.

4.19 It is anticipated that the current SO Exit Commodity charge will map onto the new SO Exit (Flat) commodity charge. A TO Exit (Flat) Commodity charge might only be required to recycle any Flexibility revenue and to offset under or over recovery arising due to NTS Exit (Flat) Capacity auction related forecast error. A TO Exit Commodity charge may therefore only be required for the UNC 0116 Modification Proposals other than 0116A.

Implementation

4.20 Implementation of changes to the NTS Charging Methodology would be dependent on the UNC modification proposal directed for implementation.

4.21 In relation to a given gas year N (1st October to 30th September)

- Indicative prices would be required for the initial application period for Prevailing/Enduring capacity in gas year N-4.
- Subsequent years would require either indicative prices or reserve prices to be generated for annual capacity (dependent on the UNC proposal) in gas years N-3 and N-2
- Finally Prevailing/Enduring prices, which would also represent daily reserve prices, would be generated in gas year N-1 for gas year N.

4.22 A timeline for the generation of indicative and actual prices is contained within Appendix C - Timelines.

4.23 Indicative Charges are included in Appendix B – Indicative NTS Exit (Flat) Capacity Prices.

5 National Grid's Proposal

5.1 National Grid proposes that:

- A consistent approach to the setting of prices for NTS Exit (Flat) Capacity is taken for all UNC Modification Proposal other than 0116A, which requires no changes.
- A consistent approach shall be taken for the generation of auction reserve prices or indicative prices as required
- Nodal, offtake specific, NTS Exit (Flat) Capacity prices are set
- Interruption credits are removed from the NTS Charging Methodology
 - Bilateral contracts, leading to surrender charges, would result from the UNC Modification Proposals
- NTS Exit (Flat) Capacity Prices are calculated using the prevailing NTS Charging Methodology for NTS Exit Capacity Prices
- The Transportation Model is used for estimating Long Run Marginal Costs (LRMCs) for the purposes of determining Prevailing/Enduring NTS Exit (Flat) Capacity prices and reserve prices for annual and daily firm NTS Exit (Flat) Capacity auctions based on a single year network model and supply/demand forecast for the relevant Gas Year;
 - For Prevailing/Enduring NTS Exit (Flat) Capacity, charges will be set for the forthcoming Gas Year based on the supply and demand data and network model for that year;
 - For annual reserve prices, the reserve price for Gas Year N will be set based on the supply and demand data and network model for year N;
 - For daily firm reserve prices, the reserve price will be set based on the Prevailing NTS Exit (Flat) Capacity charge in place for that Gas Day.
 - For daily interruptible/off-peak reserve prices, the reserve price will be zero.
- Defined inputs to the Transportation Model
 - Network ~ the network model comprising the nodes and pipe lengths would represent the Year of capacity release. The model would represent committed projects as indicated by the Ten Year Statement. Where network models are generated for indicative prices for the first application sufficient pipe to allow connection of all new entry and exit points would be included.
 - Supply Data ~ Ten Year Statement (No Change)
 - Supply Balancing ~ Merit order (No Change ~ subject to review)
 - Demand Data ~ flow and capacity data will be based on Prevailing/Enduring capacity holding. Bi-directional system points will be assumed to be in supply mode and hence will have a zero exit flow. Sites representing incremental capacity release will have the capacity level (but not the flow level) capped at the obligated level as this is the level of capacity that represents TO revenue; capacity in excess of this level represents SO revenue

- Target revenue ~ TO revenue calculated in accordance with the NTS Charging Methodology and NTS Licence (No Change)
- Expansion factor ~ calculated in gas year N-4 based on the costs of constructing NTS capacity for 1st October in gas Year N. (e.g. the expansion factor for gas year starting 1st October 2012 would be set in the summer of 2009 and would apply for setting prices for all applications and auctions for gas year starting 1st October 2012 including daily auctions)
- Anuitisation factor ~ Implied by the NTS Licence (allowed rate of return and 40 year anuitisation period) at the time of setting prices. (No Change)

Implementation

It is proposed that these arrangements are implemented with effect from the date of implementation of the relevant UNC Modification Proposal other than UNC Modification Proposal 0116A for which no changes are anticipated. Implementation of a proposal other than UNC 0116A would require an initial application in the summer of gas year N for capacity from 1st October in gas year N=4 e.g. summer 2009 for gas year starting 1st October 2012. As a consequence there would be a phased implementation as indicated by the timelines in Appendix C - Timelines.

Indicative Prices

Indicative prices for a range of firm capacity scenarios are included in Appendix B – Indicative NTS Exit (Flat) Capacity Prices. These prices are applicable for all UNC proposals other than UNC 0116A. The scenarios reflect sensitivity analysis of potential capacity bookings, which is a key determinant of prices.

Future Proposals

Further proposals might be required to cover NTS Exit Commodity charges. A negative TO Exit Commodity Charge may be required to manage over-recovery from daily exit capacity auctions.

6 Justification

Assessment against Licence Objectives

- 6.1 The National Grid plc Gas Transporter Licence in respect of the NTS requires that proposed changes to the NTS Charging Methodology shall achieve the relevant methodology objectives.
- 6.2 Where transportation prices are not established through an auction, prices 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.
- 6.3 National Grid believes that GCM05 would achieve the relevant objectives.
- 6.4 The prices generated from the Transportation Model are reflective of both the costs that have been incurred in making physical system capacity available (through the assumptions in the Expansion Constant) and the actual marginal costs that would be incurred by capacity release relative to the prevailing system capacity. Calculating prices on a single year analysis with a Transportation Model will therefore result in Users paying differentially for the capacity they hold and potentially use during the relevant Gas Year.
- 6.5 It is National Grid's view that the objective of NTS Exit (Flat) Capacity prices is to provide price signals to Users in relation to the relative cost associated with providing capacity at different locations around the network. The advantage of the proposed Tariff model approach, where exit prices are adjusted (additive) rather than a commodity approach, is that it preserves the locational price differentials between Entry points and between Exit points and hence preserves the relative cost-reflectivity.
- 6.6 It is National Grid's view that competition can be promoted in terms of the development of the NTS Charging Methodology by making it simple and easy to understand such that prices can be replicated and forecast by Users. The Transportation Model has significant benefits in term of transparency and predictability. Using a single year's forecast allows the prices for the remaining years of the ten year plan to be forecast by both National Grid and the wider industry. It is anticipated that this feature of the methodology would give greater confidence to Users and reduce risk associated with price uncertainty hence promoting competition and reducing barriers to entry. National Grid believes the use of a single charging model (Transportation Model) will allow it to make more consistent estimates of LRMCs and therefore avoid undue preference in capacity pricing. The single charging model also allows both National Grid and Users to easily make quick assessments of the value of capacity, therefore enabling the user to make informed decisions about purchasing capacity.

Assessment against EU Gas Regulations

6.7 EC Regulation 1775/2005 on conditions for access to the natural gas transmission networks (binding from 1 July 2006) are summarised below.

- 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.

6.8 National Grid believes that GCM05 is consistent with the principles listed above.

7 Areas for Consultation

7.1 National Grid invites views on whether the proposed changes to our Gas Transmission Transportation Charging Methodology achieve National Grid Gas's relevant GT Licence objectives, specifically that:

- A consistent approach to setting actual, indicative and auction reserve prices for NTS Exit (Flat) Capacity is taken for all proposal other than 0116A which requires no changes
- Nodal NTS Exit (Flat) Capacity prices are generated
- Interruption credits are removed
- The prevailing methodology for NTS Exit Capacity Prices will be used for the purposes of determining Enduring/Prevailing NTS Exit (Flat) Capacity prices and reserve prices for annual (UNC 0116 variants excluding UNC 0116A only) and daily firm NTS Exit (Flat) Capacity auctions based on a single year network model and supply/demand forecast for the relevant Gas Year
- The expansion factor, the unit cost (£/GWhkm) of adding capacity, will be determined in year N in relation for setting all exit prices for year N+4.
- The annuitisation factor used will be that calculated from the allowed rate of return implied by the NTS Licence, at the time of setting prices, and a forty year asset life (currently 0.10272)
- These arrangements are implemented with effect from the date of implementation of the relevant UNC Modification Proposal.

The closing date for submission of your responses is **Friday 12th September 2008**. Your response should be e-mailed to:

box.transmissioncapacityandcharging@uk.ngrid.com

or alternatively sent by post to

Eddie Blackburn, Regulatory Frameworks, National Grid, National Grid House, Gallows Hill, Warwick, CV34 6DA.

If you wish to discuss any matter relating to this charge methodology consultation then please call Eddie Blackburn ☎ 01926 656022 or Debra Hawkin ☎ 01926 656317.

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 – Licence Implications of Exit Reform

Interruptible supply points do not currently attract NTS Exit Capacity charges. Within the Licence, 'Charges Foregone' are those revenues equal to the NTS Exit Capacity charges that Interruptible supply points would pay if they were Firm.

Charges Foregone are (up to exit reform) included within the NTS Licence as SO allowed revenue and as TO actual (collected) revenue i.e. an increase in SO allowed revenue is cancelled out by a net reduction in TO allowed exit revenue. The effect of this is to move the allowed revenue from the TO control to the SO control.

Post Exit Reform there would be no 'Charges Foregone'. In theory this means that NTS Exit (Flat) Capacity charges could remain unchanged, if all 'interruptible' demand converted to firm, with a consequential decrease in SO Commodity charges. This would be as a consequence of the increased allowed TO revenue, as a result of the removal of Charges Foregone, being offset by the increased collected revenue from those exit points that were previously interruptible.

There are further consequences of exit reform within the Licence with the "Buy-back and interruptions incentive" being replaced by the "Exit investment buyback incentive". These can be mapped to the removal of the interruption credits to be replaced by bi-lateral contracting and direct payment for interruption.

The remainder of the Licence changes allow for NTS Exit Capacity to be replaced by NTS Exit (Flat) Capacity and NTS Exit (flexibility) Capacity.

Allowed Revenue

- ◆ SO exit incentives, costs and revenues (SOExIRct) includes:
 - ◆ Buy-back and interruptions incentive (ExCBBIRt) **(only until exit reform)**;
 - ◆ Constrained LNG target (ExCITt);
 - ◆ Exit capacity investment incentive (ExCIIRt);
 - ◆ Long run contracting incentive costs and revenue (ExLRCIRt);
 - ◆ Non-obligated exit capacity revenue (ExNOCIRt) **(only after exit reform)**;
 - ◆ Exit investment buyback incentive (ExXSIBBct) **(only after exit reform)**;
 - ◆ Allowance for 'charges foregone' (ExNTSSICt) **(only until exit reform)**

Actual Revenue

- ◆ SO Exit Capacity actual revenue (SOExRFt)
 - ◆ Until Exit Reform
 - ◆ SO revenue from charges levied with regards provision of exit capacity above baseline ~ total charges – baseline charges (TOExt-TOExRFt)
 - ◆ Enduring
 - ◆ SO revenue from charges levied with regards provision of
 - ◆ obligated incremental NTS Exit flat capacity (REVOIExCt)
 - ◆ obligated incremental NTS Exit flow flex capacity (REVOIFFt)
 - ◆ non-obligated incremental NTS Exit flat & flow flex capacity & short term interruptible (ExREVNOct)
- ◆ **TOExRt = TOExRFt + ExNTSSICt + TORREVBExCt**
- ◆ TO Exit actual revenue (TOExRt) equals:
 - ◆ TO revenue from sale of exit baseline capacity (**until exit reform**) (TOExRFt)
 - ◆ **Plus**
 - ◆ TO Exit capacity 'charges foregone' (**until exit reform**) (ExNTSSICt)
 - ◆ **Plus**
 - ◆ TO revenue from sale of NTS exit flat & flow flexibility baseline capacity (**enduring**) (TOREVBExCt)

Appendix B – Indicative NTS Exit (Flat) Capacity Prices

These indicative exit prices have been generated to seek to show how the level of NTS Exit (Flat) Capacity bookings would affect prices post exit reform and should not be used for any other purpose. The prices are applicable for all UNC 0195 and UNC 0116 Modification proposals other than 0116A. The impact of the removal of revenue foregone on the SO Commodity charge would be a reduction of 0.0030 p/kWh based on the data used for the indicative charges.

The following Transportation Model inputs have been used:

Input	Value
Network	2012/13
Supply	December 2007 Ten Year Statement for 2012/13
Demand	2007 Forecast Demand for 2012/13 – zero for storage but capacity assumed to be booked at the baseline levels, zero for IUK
Balancing S&D	Merit Order – storage flows have been increased to offset increased demand due to the inclusion of previously 'interruptible' demand
Expansion Factor	1 st October 2008 - £2320/GWhkm (The Expansion Factor for October 2012/13 would be set in Summer 2009)
Anuitisation Factor	0.10272

Indicative NTS Exit (Flat) Capacity prices have been generated based on a range of scenarios as follows:

Scenario	Demand in Node Data Table in Transportation Model (Column P)	Exit Capacity in Administered Exit Charges Table in Transportation Model (Column AD)	Target Exit Revenue
As-Is	Forecast Firm Demand <i>Total Demand: 6227 GWh</i>	Forecast Firm Capacity - IUK Exit Capacity modelled at prevailing firm level <i>Total TO Capacity: 6130 GWh¹</i>	£235m (£58m Revenue Foregone collected through SO Commodity Charge)
1	Forecast Firm Demand - plus DC Interruptible Demand modelled as Firm <i>Total Demand: 6785 GWh</i>	Forecast Firm Capacity - plus DC Interruptible Exit Capacity modelled as Firm - plus Storage Injection modelled at Baseline Exit Capacity - IUK Exit Capacity modelled at prevailing firm level <i>Total TO Capacity: 7306 GWh</i>	£293m
2	Forecast Firm Demand - plus DC Interruptible Demand modelled as Firm - plus DN Interruptible Demand modelled as Firm <i>Total Demand: 7070 GWh</i>	Forecast Firm Capacity - plus DC Interruptible Exit Capacity modelled as Firm - plus DN Interruptible Exit Capacity modelled as Firm - plus Storage Injection modelled at Baseline Exit Capacity - IUK Exit Capacity modelled at prevailing firm level <i>Total TO Capacity: 7569 GWh</i>	
3	Forecast Firm Demand - plus DC Interruptible Demand modelled as Firm - plus DN Interruptible Demand modelled as Firm <i>Total Demand: 7070 GWh</i>	Forecast Firm Capacity - plus DC Interruptible Exit Capacity modelled as Firm - plus DN Interruptible Exit Capacity modelled as Firm - plus Storage Injection modelled at Baseline Exit Capacity - plus IUK Exit Capacity modelled at baseline level <i>Total TO Capacity: 8155 GWh</i>	
4	Demand modelled as baseline - bi-directional exit points modelled as supplies <i>Total Demand: 7350 GWh</i>	Baseline Capacity <i>Total TO Capacity: 8626 GWh</i>	

¹ The TO Exit Capacity figure is less than the demand as incremental exit capacity has been included as a demand but not as capacity. This is because incremental capacity is treated as SO revenue and hence should not be used in the process of adjusting charges to collect TO allowed revenue.

Indicative Exit Charges by Exit Point (p/kWh/day)

Exit Point	Indicative Exit Charge (p/kWh/day)				
	As-Is	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Bacton Interconnector	0.0003	0.0010	0.0015	0.0014	0.0006
ABERDEEN	0.0001	0.0001	0.0001	0.0001	0.0001
ABSON	0.0217	0.0224	0.0145	0.0143	0.0130
ALREWAS_EM	0.0150	0.0157	0.0163	0.0161	0.0153
ALREWAS_WM	0.0150	0.0157	0.0163	0.0161	0.0153
AM_PAPER	0.0198	0.0198	0.0198	0.0197	0.0194
ARMADALE	0.0001	0.0001	0.0001	0.0001	0.0001
ASPLEY	0.0179	0.0186	0.0191	0.0190	0.0182
ASSELBY	0.0024	0.0025	0.0030	0.0029	0.0021
AUDLEY_NW	0.0194	0.0201	0.0207	0.0205	0.0197
AUDLEY_WM	0.0194	0.0201	0.0207	0.0205	0.0197
AUSTREY	0.0144	0.0151	0.0156	0.0155	0.0141
AVONMOUTH_LNG	0.0233	0.0240	0.0128	0.0127	0.0113
AYLESBEARE	0.0297	0.0304	0.0225	0.0224	0.0211
BACTON_OT	0.0003	0.0010	0.0015	0.0014	0.0006
BAGLAN_BAY_PG	0.0067	0.0074	0.0001	0.0001	0.0001
BALDERSBY	0.0073	0.0073	0.0079	0.0077	0.0069
BALGRAY	0.0001	0.0001	0.0001	0.0001	0.0001
BARKING_PG	0.0102	0.0130	0.0135	0.0134	0.0126
BARTON_STACEY	0.0221	0.0228	0.0233	0.0232	0.0224
BATHGATE	0.0001	0.0001	0.0001	0.0001	0.0001
BILLINGHAM_ICI	0.0053	0.0053	0.0053	0.0052	0.0044
BISHOP_AUCKLAND	0.0070	0.0070	0.0070	0.0069	0.0061
BLABY	0.0117	0.0124	0.0129	0.0128	0.0120
BLACKROD	0.0170	0.0170	0.0170	0.0169	0.0166
BLYBOROUGH	0.0042	0.0049	0.0055	0.0053	0.0045
BP_GRANGEMOUTH	0.0001	0.0001	0.0001	0.0001	0.0001
BP_SALTEND_HP	0.0001	0.0001	0.0001	0.0001	0.0001
BRAISHFIELD_A_&_B	0.0235	0.0242	0.0248	0.0246	0.0238
BRIDGEWATER_PAPER	0.0218	0.0241	0.0246	0.0245	0.0237
BRIGG_PG	0.0042	0.0049	0.0055	0.0053	0.0045
BRIMSDOWN_PG	0.0134	0.0141	0.0146	0.0145	0.0137
BRISLEY	0.0029	0.0036	0.0042	0.0040	0.0032
BRITISHSUGAR_CANTLEY	0.0025	0.0032	0.0037	0.0036	0.0027
BRITISHSUGAR_YORK	0.0045	0.0045	0.0051	0.0049	0.0041
BROXBURN	0.0001	0.0001	0.0001	0.0001	0.0001

Exit Point	Indicative Exit Charge (p/kWh/day)				
	As-Is	Scenario 1	Scenario 2	Scenario 3	Scenario 4
BRUNNER_MOND	0.0203	0.0203	0.0203	0.0202	0.0199
BURLEY_BANK	0.0069	0.0069	0.0075	0.0073	0.0065
CALDECOTT	0.0095	0.0102	0.0107	0.0106	0.0098
CAMBRIDGE	0.0098	0.0105	0.0110	0.0109	0.0101
CARESTON	0.0001	0.0001	0.0001	0.0001	0.0001
CAYTHORPE_(MRS)	0.0009	0.0001	0.0001	0.0001	0.0001
CHESHIRE_(MRS)	0.0198	0.0199	0.0199	0.0197	0.0194
CIRENCESTER	0.0196	0.0203	0.0124	0.0123	0.0110
COFFINSWELL	0.0323	0.0330	0.0251	0.0249	0.0206
COLDSTREAM	0.0001	0.0001	0.0001	0.0001	0.0001
CONNAHS_QUAY_PS	0.0214	0.0244	0.0249	0.0248	0.0240
CORBRIDGE	0.0027	0.0027	0.0027	0.0026	0.0023
CORBY_PS	0.0098	0.0105	0.0110	0.0109	0.0101
CORYTON_PG	0.0099	0.0128	0.0133	0.0132	0.0124
COTTAM_PG	0.0042	0.0049	0.0055	0.0053	0.0045
COWPEN_BEWLEY	0.0051	0.0051	0.0051	0.0050	0.0042
DAMHEAD_CREEK	0.0079	0.0108	0.0113	0.0112	0.0103
DEESIDE_PS	0.0217	0.0241	0.0246	0.0245	0.0236
DIDCOT_A	0.0185	0.0193	0.0198	0.0197	0.0189
DIDCOT_PS	0.0186	0.0193	0.0198	0.0197	0.0188
DOWLAIS	0.0089	0.0096	0.0017	0.0016	0.0002
DRAKELOW	0.0147	0.0154	0.0159	0.0158	0.0090
DROINTON	0.0161	0.0168	0.0173	0.0172	0.0164
DRUM	0.0001	0.0001	0.0001	0.0001	0.0001
DYFFRYN_CLYDACH	0.0069	0.0076	0.0001	0.0001	0.0001
DYNEVOR_ARMS_LNG	0.0084	0.0091	0.0012	0.0010	0.0001
EASINGTON&ROUGH_TERMINAL	0.0001	0.0001	0.0001	0.0001	0.0001
EASTOFT	0.0037	0.0038	0.0043	0.0042	0.0034
EASTON_GREY	0.0201	0.0208	0.0129	0.0128	0.0115
ECCLESTON	0.0225	0.0232	0.0237	0.0236	0.0228
ELTON	0.0062	0.0057	0.0062	0.0061	0.0053
ENRON_(BILLINGHAM)	0.0053	0.0053	0.0053	0.0052	0.0044
EVESHAM	0.0160	0.0167	0.0094	0.0092	0.0079
FARNINGHAM	0.0102	0.0130	0.0135	0.0134	0.0126
FIDDINGTON	0.0154	0.0161	0.0082	0.0080	0.0067
FLEETWOOD_(MRS)	0.0153	0.0153	0.0153	0.0152	0.0149
GANSTEAD	0.0001	0.0001	0.0001	0.0001	0.0001

Exit Point	Indicative Exit Charge (p/kWh/day)				
	As-Is	Scenario 1	Scenario 2	Scenario 3	Scenario 4
GARTON_(MRS)	0.0001	0.0001	0.0001	0.0001	0.0001
GILWERN	0.0100	0.0107	0.0028	0.0026	0.0013
GLENMAVIS	0.0001	0.0001	0.0001	0.0001	0.0001
GLENMAVIS_LNG	0.0001	0.0001	0.0001	0.0001	0.0001
GOOLE_GLASS	0.0029	0.0030	0.0035	0.0034	0.0026
GOSBERTON	0.0052	0.0059	0.0064	0.0063	0.0055
GRAIN_GAS	0.0079	0.0108	0.0113	0.0112	0.0103
GREAT_WILBRAHAM	0.0079	0.0086	0.0092	0.0090	0.0082
GREAT_YARMOUTH	0.0003	0.0010	0.0015	0.0014	0.0006
GUYZANCE	0.0003	0.0003	0.0003	0.0002	0.0001
HARDWICK	0.0152	0.0159	0.0164	0.0163	0.0155
HATFIELD_MOOR_(MRS)	0.0037	0.0038	0.0043	0.0042	0.0034
HAYS_CHEMICALS	0.0202	0.0211	0.0216	0.0215	0.0207
HOLEHOUSE_FARM_(MRS)	0.0181	0.0188	0.0193	0.0192	0.0184
HOLMES_CHAPEL	0.0206	0.0213	0.0213	0.0212	0.0209
HORNDON	0.0102	0.0130	0.0135	0.0134	0.0126
HORNSEA_(MRS)	0.0001	0.0001	0.0001	0.0001	0.0001
HUMBLETON	0.0001	0.0001	0.0001	0.0001	0.0001
HUMBLY_GROVE_(MRS)	0.0221	0.0228	0.0233	0.0232	0.0224
HUME	0.0001	0.0001	0.0001	0.0001	0.0001
ICI_RUNCORN	0.0234	0.0241	0.0247	0.0245	0.0237
ILCHESTER	0.0256	0.0263	0.0184	0.0183	0.0170
IMMINGHAM_PG	0.0001	0.0001	0.0006	0.0005	0.0001
IPSDEN	0.0181	0.0188	0.0193	0.0192	0.0186
KEADBY_PS	0.0040	0.0040	0.0046	0.0044	0.0036
KELD	0.0090	0.0090	0.0090	0.0089	0.0086
KEMIRAINCE_CHP	0.0231	0.0238	0.0243	0.0242	0.0234
KENN	0.0308	0.0315	0.0236	0.0234	0.0221
KINGS_LYNN_PS	0.0055	0.0062	0.0067	0.0066	0.0057
KINKNOCKIE	0.0001	0.0001	0.0001	0.0001	0.0001
KIRKBY_MALLORY	0.0126	0.0133	0.0139	0.0137	0.0111
KIRKSTEAD	0.0033	0.0040	0.0045	0.0044	0.0036
LANGAGE_PG	0.0308	0.0315	0.0236	0.0234	0.0221
LANGHOLM	0.0036	0.0037	0.0037	0.0035	0.0032
LEAMINGTON	0.0136	0.0143	0.0118	0.0117	0.0103
LITTLE_BARFORD_PS	0.0116	0.0123	0.0128	0.0127	0.0119
LITTLE_BURDON	0.0066	0.0061	0.0066	0.0065	0.0057

Exit Point	Indicative Exit Charge (p/kWh/day)				
	As-Is	Scenario 1	Scenario 2	Scenario 3	Scenario 4
LITTLETON_DREW	0.0208	0.0215	0.0136	0.0135	0.0122
LOCKERBIE	0.0027	0.0028	0.0028	0.0027	0.0024
LONGANNET	0.0001	0.0001	0.0001	0.0001	0.0001
LOWER_QUINTON	0.0153	0.0160	0.0104	0.0103	0.0089
LUPTON	0.0114	0.0115	0.0115	0.0114	0.0111
LUXBOROUGH_LANE	0.0125	0.0132	0.0137	0.0136	0.0128
MAELOR	0.0220	0.0227	0.0232	0.0231	0.0223
MALPAS	0.0212	0.0219	0.0224	0.0223	0.0215
MAPPOWDER	0.0276	0.0283	0.0204	0.0203	0.0190
MARCHWOOD	0.0238	0.0245	0.0250	0.0249	0.0233
MARKET_HARBOROUGH	0.0105	0.0112	0.0118	0.0116	0.0108
MATCHING_GREEN	0.0128	0.0135	0.0140	0.0139	0.0131
MEDWAY_PS	0.0078	0.0109	0.0114	0.0113	0.0104
MELKINTHORPE	0.0083	0.0083	0.0083	0.0082	0.0079
MICKLE_TRAFFORD	0.0225	0.0232	0.0238	0.0236	0.0228
MILWICH	0.0167	0.0174	0.0179	0.0178	0.0170
MOFFAT	0.0017	0.0017	0.0017	0.0016	0.0013
MOSSIDE	0.0001	0.0001	0.0001	0.0001	0.0001
NETHER_HOWCLEUGH	0.0010	0.0010	0.0010	0.0009	0.0006
PANNAL	0.0064	0.0065	0.0070	0.0069	0.0061
PARTINGTON	0.0200	0.0200	0.0200	0.0199	0.0192
PARTINGTON_LNG	0.0200	0.0200	0.0200	0.0199	0.0192
PAULL	0.0001	0.0001	0.0001	0.0001	0.0001
PEMBROKE_PG	0.0001	0.0001	0.0001	0.0001	0.0001
PETERBOROUGH_PS	0.0074	0.0090	0.0095	0.0094	0.0076
PETERBOROUGH_TEE	0.0078	0.0085	0.0091	0.0089	0.0081
PETERHEAD_PG	0.0001	0.0001	0.0001	0.0001	0.0001
PETERS_GREEN	0.0119	0.0126	0.0131	0.0130	0.0122
PHILLIPS_SEAL_SANDS	0.0047	0.0047	0.0047	0.0046	0.0038
PICKERING	0.0035	0.0015	0.0021	0.0019	0.0011
PITCAIRNGREEN	0.0001	0.0001	0.0001	0.0001	0.0001
PUCKLECHURCH	0.0217	0.0224	0.0145	0.0143	0.0130
RAWCLIFFE	0.0026	0.0026	0.0032	0.0030	0.0022
ROCKSAVAGE_PG	0.0234	0.0241	0.0247	0.0245	0.0237
ROLLS_ROYCE_ANSTY	0.0122	0.0129	0.0134	0.0132	0.0118
ROLLS_WOOD	0.0001	0.0001	0.0001	0.0001	0.0001
ROOSECOTE_PS	0.0080	0.0082	0.0082	0.0081	0.0078

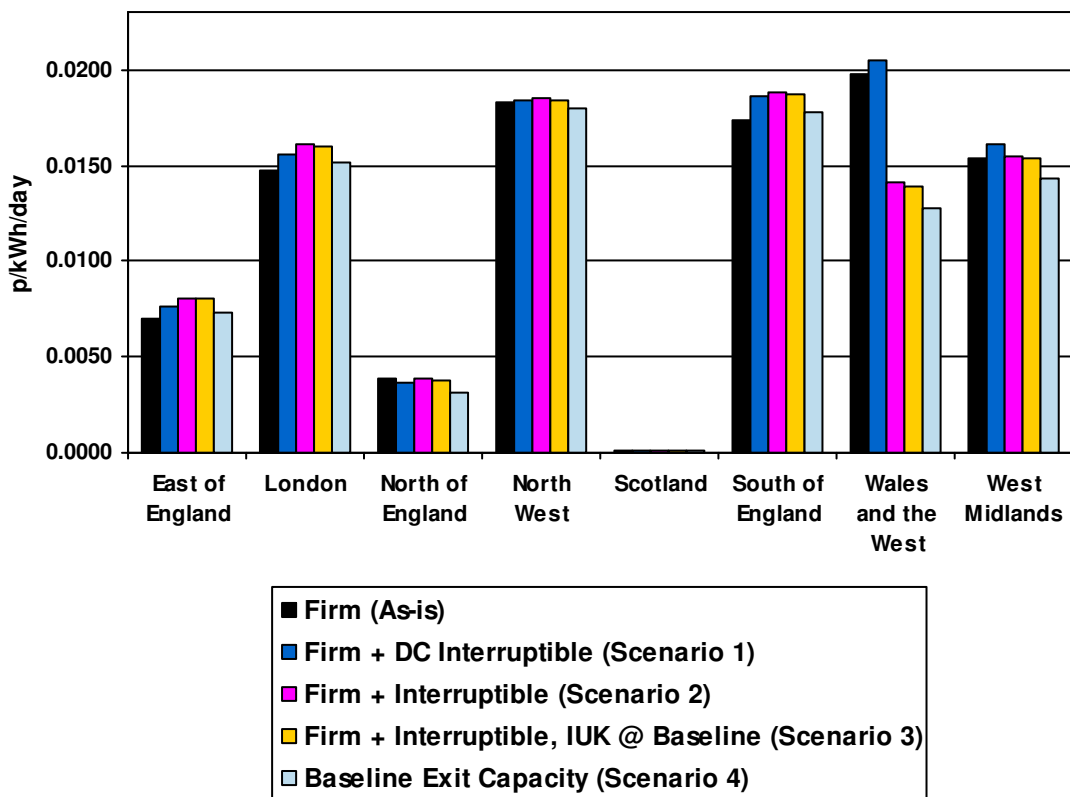
Exit Point	Indicative Exit Charge (p/kWh/day)				
	As-Is	Scenario 1	Scenario 2	Scenario 3	Scenario 4
ROSS_SW	0.0128	0.0135	0.0056	0.0054	0.0041
ROSS_WM	0.0128	0.0135	0.0056	0.0054	0.0041
ROUDHAM_HEATH	0.0044	0.0051	0.0056	0.0055	0.0047
ROYSTON	0.0097	0.0104	0.0109	0.0108	0.0100
RUGBY	0.0126	0.0133	0.0128	0.0127	0.0114
RYE_HOUSE_PS	0.0141	0.0148	0.0153	0.0152	0.0144
SALTEND	0.0001	0.0001	0.0001	0.0001	0.0001
SALTWICK	0.0001	0.0001	0.0001	0.0001	0.0011
SAMLESBURY	0.0156	0.0156	0.0156	0.0155	0.0152
SAPPAPERMILLCHP	0.0164	0.0164	0.0164	0.0163	0.0160
SEABANK_LDZ	0.0235	0.0242	0.0129	0.0128	0.0115
SEABANK_POWER_II	0.0234	0.0241	0.0128	0.0127	0.0114
SELLAFIELD_PS	0.0061	0.0119	0.0119	0.0118	0.0115
SEVERNSIDE_ICI	0.0233	0.0240	0.0129	0.0128	0.0114
SHORNE	0.0092	0.0120	0.0126	0.0124	0.0116
SHOTTON_PAPER	0.0225	0.0232	0.0238	0.0236	0.0228
SHUSTOKE	0.0155	0.0162	0.0167	0.0166	0.0153
SILK_WILLOUGHBY	0.0044	0.0051	0.0056	0.0055	0.0047
SOUTRA	0.0005	0.0006	0.0006	0.0004	0.0002
SPALDING_PG	0.0055	0.0062	0.0068	0.0066	0.0058
ST_FERGUS_OT	0.0001	0.0001	0.0001	0.0001	0.0001
STALLINGBOROUGH_PS	0.0002	0.0009	0.0015	0.0013	0.0005
STRANRAER	0.0017	0.0017	0.0017	0.0016	0.0013
STRATFORD_UPON_AVON	0.0149	0.0156	0.0105	0.0104	0.0091
SUTTON_BRIDGE	0.0069	0.0076	0.0081	0.0080	0.0072
SUTTON_BRIDGE_PS	0.0067	0.0074	0.0080	0.0078	0.0070
TATSFIELD	0.0118	0.0146	0.0151	0.0150	0.0142
TEESSIDE_BASF	0.0047	0.0047	0.0047	0.0046	0.0038
TEESSIDE_HYDROGEN	0.0047	0.0047	0.0047	0.0046	0.0038
THORNTON_CURTIS_LDZ	0.0001	0.0001	0.0006	0.0005	0.0001
THORNTON_CURTIS_PG	0.0001	0.0001	0.0006	0.0005	0.0001
THRINTOFT	0.0082	0.0077	0.0082	0.0081	0.0073
TOW_LAW	0.0088	0.0089	0.0089	0.0087	0.0079
TOWTON	0.0045	0.0045	0.0051	0.0049	0.0041
TUR_LANGTON	0.0107	0.0114	0.0119	0.0118	0.0110
WALESBY	0.0010	0.0017	0.0022	0.0021	0.0013
WARBURTON	0.0198	0.0198	0.0198	0.0197	0.0194

Exit Point	Indicative Exit Charge (p/kWh/day)				
	As-Is	Scenario 1	Scenario 2	Scenario 3	Scenario 4
WARMINGHAM	0.0205	0.0212	0.0217	0.0216	0.0208
WELTON_(MRS)	0.0042	0.0049	0.0055	0.0053	0.0045
WEST_WINCH	0.0052	0.0059	0.0064	0.0063	0.0055
WESTON_POINT	0.0234	0.0241	0.0247	0.0245	0.0237
WETHERAL	0.0059	0.0060	0.0060	0.0058	0.0055
WHITWELL	0.0115	0.0122	0.0127	0.0126	0.0118
WINKFIELD_NT	0.0202	0.0209	0.0214	0.0213	0.0205
WINKFIELD_SE	0.0202	0.0209	0.0214	0.0213	0.0205
WINKFIELD_SO	0.0202	0.0209	0.0214	0.0213	0.0205
YELVERTON	0.0025	0.0032	0.0037	0.0036	0.0027
ZENECA	0.0047	0.0047	0.0047	0.0046	0.0038

Indicative Exit Charges by Exit Zone (p/kWh/day)

		Average Indicative Exit Charge (p/kWh/day) by NTS Exit Zone				
Area	Zone	As-Is	Scenario 1	Scenario 2	Scenario 3	Scenario 4
East of England	EA1	0.0063	0.0070	0.0076	0.0074	0.0064
	EA2	0.0065	0.0072	0.0078	0.0076	0.0072
	EA3	0.0025	0.0032	0.0037	0.0036	0.0027
	EA4	0.0119	0.0126	0.0131	0.0130	0.0122
	EM1	0.0001	0.0001	0.0006	0.0005	0.0001
	EM2	0.0044	0.0051	0.0057	0.0055	0.0047
	EM3	0.0142	0.0149	0.0154	0.0153	0.0144
	EM4	0.0099	0.0106	0.0112	0.0110	0.0103
North of England	NE1	0.0058	0.0058	0.0064	0.0062	0.0054
	NE2	0.0010	0.0005	0.0006	0.0006	0.0004
	NE3	0.0001	0.0001	0.0001	0.0001	0.0001
	NO1	0.0062	0.0060	0.0062	0.0061	0.0040
	NO2	0.0062	0.0063	0.0063	0.0061	0.0058
London	NT1	0.0202	0.0209	0.0214	0.0213	0.0205
	NT2	0.0120	0.0132	0.0137	0.0136	0.0128
	NT3	0.0119	0.0126	0.0131	0.0130	0.0122
North West	NW1	0.0160	0.0160	0.0160	0.0159	0.0156
	NW2	0.0205	0.0207	0.0209	0.0208	0.0204
Scotland	SC1	0.0001	0.0001	0.0001	0.0001	0.0001
	SC2	0.0001	0.0001	0.0001	0.0001	0.0001
	SC4	0.0002	0.0002	0.0002	0.0002	0.0002
South of England	SE1	0.0109	0.0137	0.0142	0.0141	0.0134
	SE2	0.0202	0.0209	0.0214	0.0213	0.0205
	SO1	0.0152	0.0159	0.0164	0.0163	0.0155
	SO2	0.0233	0.0240	0.0230	0.0229	0.0217
Wales and the West	SW1	0.0152	0.0159	0.0081	0.0079	0.0066
	SW2	0.0227	0.0234	0.0143	0.0142	0.0129
	SW3	0.0302	0.0309	0.0230	0.0228	0.0219
	WN	0.0220	0.0227	0.0232	0.0231	0.0223
	WS	0.0089	0.0096	0.0018	0.0017	0.0004
West Midlands	WM1	0.0179	0.0186	0.0191	0.0190	0.0183
	WM2	0.0149	0.0156	0.0161	0.0160	0.0149
	WM3	0.0133	0.0140	0.0114	0.0113	0.0098

The following graph shows the average offtake prices by Distribution Network in order to show the geographic impact on prices. The marked change in prices for Wales and the West is due to the large change in supplies at Avonmouth required to meet the increased demand in scenarios 2, 3 & 4. Under the prevailing NTS Charging Methodology, supplies are matched to demand using a merit order which appears to make exit charges nearest the supplies at the top of the merit order most variable. National Grid has committed to investigate alternative supply and demand balancing options to seek to make exit charges more stable and to bring forward NTS Charging Methodology proposals as required. As this proposal is based on the prevailing charging methodology, any changes to the balancing approach used to set exit charges would be for both the prevailing arrangements and the enduring offtake arrangements.



Appendix C - Timelines

The following tables shows an example of the build up of prices that would be generated post implementation of all proposals other than 0116A. A 1st October 2012 implementation date has been used with the first application period summer 2009. In each year, starting from 2009, the prices that would be generated are shown.

Key
Actual prices or reserve prices
Reserve prices (0116 variants other than 116A) or Indicative prices (0195 or 0195AV)
Indicative Prices

Timeline Example 2009 – Auctions/Applications

Gas Year Modelled	Used For	Gas Day - Capacity		Application Window / Date Auction(s) Held
		From	To	
2012/13	INDICATIVE Prevailing/Enduring NTS Exit (Flat) Capacity	1 Oct 2012	-	Summer 2009 Application Window
		1 Oct 2013	-	
		1 Oct 2014	-	

Timeline Example 2010 – Auctions/Applications

Gas Year Modelled	Used For	Gas Day - Capacity		Application Window / Date Auction Held
		From	To	
2012/13	Annual NTS Exit (Flat) Capacity**	1 Oct 2012	30 Sep 2013	Summer 2010 Application Window or Auction
2013/14	INDICATIVE Prevailing/Enduring NTS Exit (Flat) Capacity	1 Oct 2013	-	Summer 2010 Application Window
		1 Oct 2014	-	
		1 Oct 2015	-	

**** Reserve Prices under 116 (other than A), Indicative Prices under 195/AV**

Timeline Example 2011 – Auctions/Applications

Gas Year Modelled	Used For	Gas Day - Capacity		Application Window / Date Auction Held
		From	To	
2012/13	Annual NTS Exit (Flat) Capacity**	1 Oct 2012	30 Sep 2013	Summer 2011 Application Window or Auction
2013/14	Annual NTS Exit (Flat) Capacity**	1 Oct 2013	30 Sep 2014	Summer 2011 Application Window or Auction
2014/15	INDICATIVE Prevailing/Enduring NTS Exit (Flat) Capacity	1 Oct 2014	-	Summer 2011 Application Window
		1 Oct 2015	-	
		1 Oct 2016	-	
** Reserve Prices under 116 (other than A), Indicative Prices under 195/AV				

Timeline Example 2012 – Auctions/Applications

Gas Year Modelled	Used For	Gas Day - Capacity		Application Window / Date Auction(s) Held
		From	To	
2012/13	Prevailing/Enduring NTS Exit (Flat) Capacity**	1 Oct 2012	30 Sep 2013	Capacity booked in Summer 2009 Application Window
	Daily Firm NTS Exit (Flat) Capacity (Day Ahead)	1 Oct 2012	30 Sep 2013	30 Sep 2012 to 29 Sep 2013
	Daily Firm NTS Exit (Flat) Capacity (Within Day)	1 Oct 2012	30 Sep 2013	1 Oct 2012 to 30 Sep 2013
	Daily Interruptible NTS Exit (Flat) Capacity	1 Oct 2012	30 Sep 2013	30 Sep 2012 to 29 Sep 2013
2013/14	Annual NTS Exit (Flat) Capacity**	1 Oct 2013	30 Sep 2014	Summer 2012 Application Window or Auction
2014/15	Annual NTS Exit (Flat) Capacity**	1 Oct 2014	30 Sep 2015	Summer 2012 Application Window or Auction
2015/16	INDICATIVE Prevailing/Enduring NTS Exit (Flat) Capacity	1 Oct 2015	-	Summer 2012 Application Window
		1 Oct 2016	-	
		1 Oct 2017	-	
** Reserve Prices under 116 (other than A), Indicative Prices under 195/AV				