

## **DISCUSSION REPORT**

### **Modification Proposals to the Gas Transmission Transportation Charging Methodology**

#### **NTS GCD 01:**

#### **Introduction of NTS Exit (Flat) Capacity Charges under the enduring offtake arrangements**

**30<sup>th</sup> March 2007**

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## 1 Executive Summary

Gas Charging Discussion Paper NTS GCD01, issued 20<sup>th</sup> October 2006, set out for discussion National Grid NTS' proposed options for amending the Gas Transmission Transportation Charging Methodology (the "Charging Methodology") in respect of the setting of NTS Exit (Flat) Capacity Prices from 1<sup>st</sup> October 2010. Changes would be required in the event of implementation of UNC Modification 0116 ("Introduction of NTS Offtake arrangements") or one of its alternatives, which would make available an NTS Exit (Flat) Capacity product to all Users as part of the enduring offtake arrangements.

The proposed NTS Exit (Flat) Capacity product would provide Users the ability to obtain rights to offtake a daily quantity of gas at an NTS Exit Point, with the implied right to offtake at an even flow rate across the Gas Day. NTS Exit (Flat) Capacity is proposed to be made available at an NTS Exit Point to Users in the following bundles of daily rights:

- "Prevailing NTS Exit (Flat) Capacity" - Firm NTS Exit (Flat) Capacity which may be applied for and registered as held by a User for each Gas Day in every Gas Year. Users will be able to apply for such rights in July of Gas Year Y for Gas Year Y+4 onwards;
- "Annual NTS Exit (Flat) Capacity" - Firm NTS Exit (Flat) Capacity which may be applied for and registered as held by a User for each Gas Day in a Gas Year. Users will be able to bid for such rights in August of Gas Year Y for Gas Years Y+1, Y+2 and Y+3 via annual auctions, with such bid prices not being less than the annual reserve price;
- "Daily NTS Exit (Flat) Capacity" - Firm NTS Exit (Flat) Capacity which may be applied for and registered as held by a User for a Gas Day only. Users will be able to bid for such rights ahead of and during the Gas Day via daily auctions, with such bid prices not being less than the daily firm reserve price; and
- "Daily Interruptible NTS Exit (Flat) Capacity" - Interruptible NTS Exit (Flat) Capacity which may be applied for and registered as held by a User for a Gas Day only. Users will be able to bid for such rights ahead of the Gas Day via daily auctions, with such bid prices not being less than the daily interruptible reserve price.

Respondents 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 flat capacity charges. National Grid NTS recognise the benefits of such an approach and believe 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. The TO Exit Commodity charge might therefore only be used to recycle any Flexibility revenue and to offset under or over recovery arising due to NTS Exit (Flat) Capacity auction related forecast error.

## 2 Introduction

- 2.1 National Grid NTS has proposed UNC Modification Proposal 0116 “Reform of the NTS Offtake Arrangements” in respect of the release of NTS Exit Capacity for utilisation from 1 October 2010. In the event that this proposal is implemented, National Grid NTS would make available Exit Capacity products referred to in the proposal as “NTS Exit (Flat) Capacity” and as “NTS Exit (Flexibility) Capacity”.
- 2.2 In light of the development of these products, National Grid NTS is required by Standard Licence Condition A4 of its GT Licence to consider any associated changes to the Gas Transmission Transportation Charging Methodology (the “Charging Methodology”).
- 2.3 It is envisaged that changes to the charging structure associated with the purchase of NTS Exit (Flat) Capacity will be needed in time for the first annual application period proposed to be held in July 2007.
- 2.4 This led to National Grid NTS publishing pricing discussion paper NTS GCD 01 on 20<sup>th</sup> October 2006 with the consultation period ending on 24<sup>th</sup> November 2006.
- 2.5 The consultation covered the setting of prices for Prevailing NTS Exit (Flat) Capacity and reserve prices for Annual, Daily and Daily Interruptible and NTS Exit (Flat) Capacity.
- 2.6 This report covers the terms of the original proposals, the representations made by relevant parties and potential changes in the terms of the proposal made by National Grid NTS as a consequence of representations received that might be brought forward in future consultations.

## 3 National Grid NTS’s Initial Proposals

Discussion paper NTS GCD 01 set out two potential options for setting charges for NTS Exit (Flat) Capacity under the enduring arrangements, to support consultation on the UNC Modification Proposal 0116:

Option 1: Transportation Model “Preferred Option”

- A Transportation Model is used for estimating Long Run Marginal Costs (LRMCs) for the purposes of determining Prevailing 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 NTS Exit (Flat) Capacity, charges will be set for the forthcoming Gas Year based on the supply/demand forecast and network model for that year;
  - For annual reserve prices, the reserve price for Gas Year Y+”n” will be set based on the supply/demand forecast 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.

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**Option 2: Transcost Model "Alternative option"**

- Transcost Model is used for estimating Long Run Marginal Costs (LRMCs) for the purposes of determining NTS Exit (Flat) Capacity prices from 1<sup>st</sup> October 2010 based on a ten year supply/demand forecast and a network model from the relevant gas year;
  - For Prevailing NTS Exit (Flat) Capacity, charges will be set for the forthcoming Gas Year based on a weighted average of 10 network analyses (as under current arrangements);
  - For annual reserve prices, the reserve price for Gas Years Y+1, Y+2 and Y+3 will be set based on the Prevailing NTS Exit (Flat) Capacity for the following Gas Year Y+1;
  - 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.

However the following proposals are common to use of either the Transportation or Transcost model options:

- The current Interruption payments will be removed as a result of the removal of the interruptible site status;
- The supply/demand forecast used will include all firm demand recognising the proposed removal of interruptible status from 1<sup>st</sup> October 2010;
- The Reserve Price for Daily Interruptible NTS Exit (Flat) Capacity will attract a 100% discount i.e. would be set at zero price;
- The Tariff Model, by which LRMCs are converted into entry and exit prices, will preserve locational differentials between NTS Exit Points within the price determination process but will not adjust prices to recover allowed TO revenue;
- There will be no capping of annual movements in capacity prices;
- Charges will be set for each NTS Exit Point consistent with the definition of the NTS Exit (Flat) Capacity product i.e. removal of zones for NTS/LDZ offtakes.

It is envisaged that any changes to the Charging Methodology associated with the purchase of the NTS Exit (Flat) Capacity for use from 1<sup>st</sup> October 2010 would be needed by July 2007, although payment of any revised charges would not occur until 2010.

A number of other transportation charging methodology modifications will be required to support implementation of UNC Modification Proposal 0116, were it, or one of its alternatives to be approved. These issues are discussed in related discussion papers numbered 'NTS GCD 02' and 'NTS GCD 03'.

## 4 Summary of Responses

Respondent	Short Code	View#	Note
The Association of Electricity Producers	AEP	Would support the introduction of a transportation model.	AEP note LRMCs will not be adjusted to recover allowed revenue. AEP would expect this issue to be more fully considered.  AEP would also expect to see further papers considering consequential changes to the DN charging methodology so that customers may understand the full impact of these proposals.
EDF Energy	EDF	Believe that the Transportation Model should be used to calculate the LRMCs.	Under the current regime, a central element is identifying the applicable exit zone and therefore the Transportation charges that will apply, including NTS exit capacity. It is not clear to EDF how this will work under the proposed regime with the move from zonal to nodal pricing.
E.ON UK	EON	Supports a move towards a Transportation Model Based approach.	EON believe prices should be adjusted to recover the fixed cost proportion of the allowed TO revenue.
International Power	IP	Supports the National Grid preferred option to move to the Transportation charging model	IP support the response given by the Association of Electricity Producers.
RWE npower	RWE	Support the introduction of a transportation model to set flat capacity charges under the enduring offtake arrangements as opposed to retaining the Transcost model.	RWE would welcome an early view from DNOs about how nodal pricing is likely to impact on how DNs intend to pass on such charges.
Scotia Gas Networks	SGN	Supports the replacement of the existing Transcost model with a Transportation model.	SGN believes that it is unrealistic for NGNTS to plan to recover such a low percentage of allowed revenue from the Exit (Flat) Capacity Charges.

Respondent	Short Code	View#	Note
Scottish and Southern Energy plc	SSE	Reluctantly offers qualified support for the Transportation model. SSE considers that the Transportation model will provide more transparent, cost reflective, repeatable and locational investment signals than the Transcost model.	<p>SSE wants NGG to provide more information to investigate if the models can be improved to:</p> <ul style="list-style-type: none"> <li>• Adjust charges to recover the full TO exit capacity revenue from capacity charges.</li> <li>• Scale charges to recover the full TO exit capacity revenue from capacity charges.</li> <li>• Do not remove negative capacity charges, as in the case of the electricity capacity charges.</li> <li>• Cap year on year changes to charges at 10 % as per the electricity DUoS charges.</li> <li>• Introduce a phasing of cost increases.</li> </ul>
Statoil UK	STUK	Support the Transportation Model as the most appropriate mechanism to determine Prevailing NTS Exit (Flat) Capacity prices.	
National Grid UK Distribution	UKD	Support the use of a Transportation model rather than Transcost for determining LRMCs.	UKD consider that it is better where possible to recover TO-related revenue by capacity charges rather than commodity charges, since the TO revenue relates primarily to transportation assets

#National Grid NTS notes that support for any of the options contained within pricing discussion document NTS GCD 01 does not necessarily represent support for UNC modification proposal 116 or any of the alternatives and does not fetter the discretion of the respondents when responding to these UNC Modification Proposals.

## 5 Consultation Responses

National Grid NTS invited views on whether the proposed options to change our Charging Methodology achieve National Grid NTS's relevant GT Licence objectives.

### **Q1. LRMCs are calculated from either a Transportation model of the NTS or are calculated from Transcost.**

#### Respondents' Views

Eight respondents (AEP, EDF, EON, IP, RWE, SGN, STUK, UKD) offered support with one respondent (SSE) offering qualified support for a move towards a Transportation Model Base approach for the calculation of Exit LRMCs. No respondent offered support for the use of Transcost.

EON "believe a number of the suggested changes to the charging methodology would enhance the cost-reflectivity and predictability of NTS exit charges and therefore have their own merit irrespective of any 'linkage' to the reforms associated with the enduring offtake arrangements."

"SSE gives qualified support to the use of a Transportation model to calculate LRMCs and does not support the use of the Transcost model. The indicative prices included in appendix C [of the consultation document] for the Transportation model are intuitively more explainable. Exit nodes that are geographically distant from sources of supply have higher charges and those exit nodes that are close to sources of supply are lower. The prices resulting from the Transcost model do not reflect this intuitive expectation."

EON notes "the Transportation Model approach ... works well in the electricity market and market participants are able to use the electricity model for scenario planning to help predict future transmission charges. This is important as such charges can have a profound affect on profitability, particularly as suppliers are unable to change customer tariffs overnight. In any new charging methodology, E.ON UK would be looking for predictability rather than necessarily stability – these characteristics should not be viewed as the same. Stability may not be appropriate if this was at the expense of cost-reflectivity. For instance, restricting changes from year-to-year so that charges fail to reflect underlying LRMCs could undermine location signals; an important consideration for those wishing to be connected or ceasing to be connected to the system.

It also appears that the Transportation Model approach will allow the charges to respond quicker to the significant changes in the pattern of supplies anticipated over the next few years. It might be argued that this increases price instability from year-to-year, but would be more cost-reflective if the distance over which gas is transported to supply particular users alters as a result of changes in patterns of supply."

EON believes "that the transmission charging methodologies in both electricity and gas should be designed to calculate fair charges for the use of the system. This necessary means that spare capacity should not be included in the model. To include spare capacity would allow some users to "free ride" at the expense of other users. Our views on this principle were articulated in our submissions to a series of similar consultations which considered the treatment of spare capacity in the methodology for calculating electricity transmission use of system charges in 2004 and 2005:

“...[T]he current charging methodology [i.e. the electricity transmission charging methodology] does not seek to look at how a new connection, or disconnection will be accommodated, but looks at the notional increase or decrease in usage of the network. Therefore, if an increase in capacity in reality requires a chunk of investment larger than a potential new connection then this is ignored by the model. The model assumes only a “fair share” allocation to meet the calculated change in flows. The expansion constant then calculates the average cost of accommodating flows per MWkm [similar to the expansion constant per GWhkm proposed for gas].

These chunks of investment create spare capacity for subsequent users. In a similar way to the model, ignoring whether actual chunks of capacity are needed to meet an increase in flows, the model also ignores whether spare capacity has been created, perhaps by a previous chunk which can meet a further increase in flows. This is correct as the model seeks only to measure the cost notional increases or decreases in flows. It is our current understanding that these statements are equally applicable to the proposed new gas Transportation Model.”

SGN notes “The Tran[s]cost model does not appear to be future proof to changes in flow directions arising from new entry flows at Milford Haven and the Isle of Grain, it is manually intensive to operate and requires User judgements to be made. Even if the Transcost model is modified so that it can continue to be used post 2007 (one of the options considered in GCM 01), users will find it difficult to operate themselves.”

IP (representing Saltend and Deeside power stations) “supports the National Grid preferred option to move to the Transportation charging model in the event that UNC mod 116 is introduced”

UKD “consider that that the Transportation model will provide a better estimate of the long-run marginal costs and will provide LRMCs, and hence exit capacity prices, which are more stable from year to year than Transcost is likely to. DNs and other users of exit capacity are generally concerned with making medium to long-term decisions regarding the level of NTS exit capacity required and other medium to long-term investments, such as the proposed purchase of DN Interruption rights or DN pipeline investment. We consider that the use of a Transportation model, as outlined, rather than Transcost will lead to more efficient longer-term decision making by Users.”

EDF “welcome the predictability that the Transport Model would bring to the industry, and would note that from our perspective predictability of future charges is of greater value than stability of charges.” EDF believes “that NGG’s general approach to flat capacity charges and the setting of reserve prices for the auctions seem reasonable, providing price transparency regardless of which charging model is used.”

EDF note “the benefit to Users, and Directly Connected Consumers (DCCs) of the Transportation Model is that they would have transparency of the charges that they would be exposed to when indicating their long term flat capacity requirements, under the User commitment model proposed in UNC 116V, 116BV and 116CV. From an investment decision perspective this predictability provides huge benefits, allowing for a full and complete investment appraisal to be undertaken on our view of future developments on the network, and thereby the likely charges associated with these developments. “

EDF have long used and taken advantage of this facility within the electricity DCLF ICRP model, and would welcome the introduction of a similar model in gas. We believe that this predictability will therefore facilitate Licence Condition 3: the securing of effective competition between gas shippers and gas suppliers, and Licence Condition 2: reflect developments within the Transportation Business, as Users will be required to indicate their long term capacity requirements, which will be greatly enhanced if they have visibility of the charges they will be exposed to. However one of the failings of the Transportation model is that it currently does not incorporate the concept of spare capacity; however NGG is consulting on how best to overcome this issue. We therefore believe that the Transportation Model should be used to calculate the LRMCS.

STUK “support the Transportation Model as the most appropriate mechanism to determine Prevailing NTS Exit (Flat) Capacity prices and reserve prices for annual and daily form NTS Exit (Flat) Capacity auctions. STUK further consider that it should be based on a single year network model and supply/demand forecast for the relevant year. “

The Association would support the introduction of a transportation model. AEP have been actively involved in the TCMF meetings and consider that the issues of stability, transparency and repeatability favour a transportation model based on a one year supply/demand scenario. Whereas the TRANSCOST model is more complex, requires more assumptions concerning supply/demand scenarios in future years and needs skilled users to optimise the compressor and regulator settings. Hence it is less likely that a TRANSCOST model could be made available to the industry in a sufficiently user-friendly manner to be useful and provide repeatable solutions. TRANSCOST also appears on occasion to set counter-intuitive charges.

AEP therefore consider that moving to a transport model will produce charges that are less susceptible to subjective assessments and better suited to a network that is seeing significant changes in system flows rather than incremental changes at existing entry points.

AEP consider that this is consistent with the relevant objectives in reflecting the costs incurred. Since the actual costs are annuitised it is appropriate that charges should exhibit a degree of stability over the asset life time. It is also consistent with taking account of developments in the transportation business since this review was prompted by the output of the TRANSCOST model under new supply/demand conditions which resulted in much discussion which required further investigation. Also it is anticipated that the transportation model should give rise to more stable and predictable charges overtime and this is consistent with promoting competition between shippers and suppliers as they need to factor in these charges to their tariffs.

“AEP support an approach that includes a backhaul benefit but excludes spare capacity. AEP agree that this needs to be considered in conjunction with a single vs. multi-year approach. The single year approach is favoured as it will most accurately reflect the network in the year in which the charges are to apply, and hence be most cost reflective of that network. The multi-year approach requires forecasts of supply/demand further into the future which inevitably will be less accurate. In addition averaging over the time period will dilute temporal price signals. The inclusion of spare capacity in a single year approach, whilst perhaps theoretically desirable would seem to lead to unstable charges. It appears that this arises from the lumpiness of investment and the transient nature of spare capacity; hence it may be more pragmatic to exclude spare capacity. A further consequence of including spare capacity would be a see-saw effect in charges with charges being close to zero when spare capacity is available which would be just before growth leads to scarcity and immediately after investment hence charges would not reflect the LRMC of the asset over its useful life – leading to an under-recovery of the investment cost. “

RWE supports the introduction of a transportation model to set flat capacity charges under the enduring offtake arrangements as opposed to retaining the Transcost model. RWE comments “Whilst no model will be able to exactly determine the actual flows of gas on the system, or precisely calculate the long run marginal costs arising from such flows, we believe that moving towards a transportation model will provide users with greater transparency and predictability of charges that have otherwise been largely opaque to them. Transcost relies heavily upon the subjective assessments of network experts to calculate capacity prices and as a consequence produces results which are not always repeatable. In some cases, due to assumptions which have been made, results are also counter intuitive. Whilst this may be a feature of a transportation model too, we believe this is likely to occur to a lesser degree.” RWE notes “In the long run a transportation model is likely to generate more consistent and stable flat capacity prices than Transcost and these prices will hopefully lead to a greater recovery of incremental investment costs.”

#### National Grid NTS' View

Transcost was designed to estimate incremental costs for small increments of flow, where demands were increasing year-on-year and system flow patterns were stable. Charges generated from Transcost were reasonably stable while entry flows at the large beach terminals were forecast to increase steadily year-on-year to meet increasing demand and NTS flows represented a stable North/East to South/West flow.

The development in new entry flows at the Milford Haven and Isle of Grain LNG Importation Facilities coupled with declining flows at many of the large beach terminals has caused significant changes to system flow patterns. NTS flows are forecast to change direction as Milford Haven and Isle of Grain gas penetrate deeper into the system over the ten year planning period. This changing flow pattern means that the choice of ideal network configuration and compressor and regulator parameters within Transcost is less clear, and more of the decision making employed by planning engineers is required. As the model is sensitive to these settings, the increasing subjectivity of these settings will impact on pricing stability and repeatability.

Some of the Exit prices generated from Transcost are counter-intuitive, particularly Scotland and the North of England where non-minimal prices are being generated at a time when National Grid NTS believes that Exit Capacity in these areas could be made available with minimal reinforcement implications. Some of the southern Entry prices are also counter-intuitive as National Grid NTS believes that Entry Capacity in these areas for small new entry points could be made available with minimal reinforcement implications.

National Grid NTS believes that the use of Transcost, for ongoing charge setting, should be discounted mainly on the grounds that;

- Charges generated from the Transcost approach are no longer reflective of costs incurred, particularly the entry and exit charges for Scotland and the north.
- Entry charges, while reflective of the cost of increasing flow, do not reflect the costs incurred and the cross subsidies that would be generated by applying the low northern terminal prices might represent undue preference and might also be in contravention of EU gas regulations.
- The Transparency and repeatability benefits of the Transportation model, outlined in the industry responses, in regards to promoting competition, are not so easily achieved through Transcost.

Attempts were made to include a backhaul benefit and exclude spare capacity within the Transcost model, as documented in Gas TCMF Progress Report PR01, but these proved unsuccessful.

The Transportation model approach would overcome the issues arising from Transcost. Charges would be reflective of the costs of capacity utilised and hence reflective of costs incurred. Scotland and northern exit prices and southern entry prices are consistent with expected reinforcement costs.

## **Option 1 – Transportation Model Based Approach**

**Q2. LRMCs are calculated from a Transportation model of the NTS, consequentially excluding spare capacity and including a backhaul benefit equal to the avoided cost of reinforcement.**

### Respondents' Views

SGN notes “The treatment of spare capacity and backhaul in the Transportation model seems to be more appropriate to the current circumstances of the NTS with some of the older terminals declining and alternative sources of supply becoming more important. The detailed modelling of the system required by Transcost, which includes spare capacity and excludes backhaul, is both more difficult to carry out and less appropriate for the foreseeable future. Backhaul is likely to become more of a feature of the NTS in the future, and therefore it seems appropriate to include it in the model. Good arguments can be made for including or excluding spare capacity but on balance SGN agree with the case put forward by NG NTS that it will be more cost reflective and result in fairer charges to Users (including DNs) if spare capacity is excluded.”

EON “consider that accounting for spare capacity is fundamentally inconsistent with the shallow charging methodology approach of the Transportation Model to reflect notional increased or decreased flows on the network.”

UKD “understand that the proposed Transportation model would, by design, exclude spare capacity and include a backhaul element. We support the general Transportation model approach but have not seen any comparable results including and excluding the backhaul benefit. We would like to see further details of the Transportation model output under these different options in order to evaluate this option. “

“SSE support the concept of the Transportation model as it is in theory the simplest model to use. NGG have informed the industry that by using this model a higher degree of cost reflectivity, transparency, repeatability, stability and usage can be achieved than by using the Transcost model. Although the Transportation model has been demonstrated SSE await the release of the model so that a greater understanding can be developed and the claims made by NGG validated by ourselves.”

SSE believe the Transportation model will produce charges that are less susceptible to subjective assessments and more suited to a network that is experiencing radical changes to network flows rather than incremental increases at entry points.

RWE notes “Whilst excluding spare capacity from a transportation model is clearly an assumption which does [not] always reflect network reality (particularly when using a single year supply/demand network model) we believe that it is a reasonable assumption to make. In our opinion it will result in prices which are a reasonable proxy of fully cost reflectivity bearing in mind that pipeline capacity can never be sized to exactly match incremental requirements or de-commissioned to reflect redundant demand.” RWE “believe that including backhaul benefit equal to the avoided cost of reinforcement is an appropriate assumption to make if spare capacity is excluded.”

EDF notes “Whilst including spare capacity would ensure that Users only pay for actual reinforcement, we would note that the inclusion of spare capacity would be subjective and would produce unstable and less predictable charges. Excluding it on the other hand would avoid the issues associated with cross subsidisation and produce more stable and predictable charges. It would appear that cross subsidisation falls foul of the EU Gas Regulations, whilst unstable and unpredictable charges would not be beneficial for competition, or reflect the developments in the transportation business. It is therefore logical that spare capacity is excluded “.

#### National Grid NTS’s View

The prices generated from the Transportation Model, based on the removal of spare capacity and the inclusion of back-haul benefit, are reflective of the costs that have been incurred in making physical system capacity available through the assumptions in the Expansion Constant. Calculating prices with a Transportation Model will therefore result in Users paying differentially for the capacity they hold and potentially use during the relevant Gas Year. The Transportation Model is more easily able to accommodate the beneficial effects of counter-flows than the prevailing Transcost approach largely due to the fact that it does not include spare capacity.

**Q3. NTS Exit (Flat) Capacity Prices are determined separately for each gas year from analysis of a single year Supply & Demand forecast using the relevant Gas Year’s base case data and network model for the capacity released.**

#### Respondents’ Views

SGN notes “The determination of capacity charges using a one-year model will have advantages in reducing the reliance that Transcost has on ten-year forecasts. By not forecasting so far ahead the Supply/Demand forecast and the network model should be more accurate and therefore the results should be more cost-reflective. The removal of the ten year averaging will allow NGNTS to provide more specific temporal and locational pricing signals which should enable Users to make more informed investment decisions. It will also remove the circularity in Transcost where LRMCs are based on future network and supply/demand data which are themselves forecasts of entry auction outturns.”

SGN notes “One potential disadvantage of the single year forecasting from a DN point of view is that charges for Prevailing Exit (Flat) Capacity will be set for the forthcoming gas year based on the supply/demand forecast and network model for that year. It therefore appears that DNs will have to apply for Prevailing Exit (Flat) Capacity in July of gas year Y for gas years Y+4 onwards without knowing what the charges for that capacity will be in those years. With the proposal to remove the capping on year-to-year changes in the charges this could apparently mean significant changes in the level of the charges at some exit points between DNs committing to the capacity and actually having to pay the charges.”

SGN believes “In this respect NTS GCD01 is not consistent with the Exit Capacity Release Methodology Statement (Issue 1) which contains two options for Prevailing Exit (Flat) Capacity charges. Option 1 is similar to GCD01, but Option 2, entitled “Commitment Based on Price at Time of Application” states that the Prevailing Exit (Flat) Capacity charge would be the relevant prevailing Exit Capacity price at the time of application. SGN support this option and believe it is the one which should be implemented in the new Exit Capacity charging methodology. Under the new regime DNs will be required to make economic decisions between booking additional NTS Exit Capacity and investing in their own networks. In order to make rational and defensible decisions they therefore need to know what they will have to pay for additional Exit Capacity at the time of commitment.”

UKD “understand that the Transportation Model us based upon a single year’s analysis. We consider that the issue of whether NTS Exit (Flat) Capacity prices are determined from a single year’s analysis or from an average of a number of years depends to some extent on the degree of instability in the exit prices if based on a single year’s analysis. Whilst we understand that the Transportation model LRMC estimates are more stable than those of Transcost from year to year, there could still be considerable variability from year to year caused by changes to the Supply/demand forecast and network model across years. We consider that it would be beneficial to see the exit capacity estimates based upon a single year for the next 5 years and those based upon an average of ,say, 5 years Transportation model analysis for each of the 5 years to better inform this decision. “

STUK notes “Enabling users to repeat the charge setting process will reduce complexity and, therefore, aid transparency and improve understanding of the charging process, for users.”

RWE comments “Moving to a one year demand/supply forecast will ensure that charges are at all times based on an accurate reflection of supply and demand on the network at the time they apply. Whereas this may, in certain cases, lead to differences arising compared to prices currently being charged (due to the lack of re-balancing over the years and the loss of the smoothing effect resulting from anuitising 10 years of charges) this impact should be predictable, and charges should be more justifiable under such an approach. Such an approach also supports any user commitment that is required to be given to underpin incremental investment in prevailing capacity being based on capacity prices prevailing at the time of delivery and ongoing operation.”

SSE support the principle of using a single year forecast of supply and demand for a particular individual year as this should be more accurate than forecasting supply and demand for a 10 year period and hence should be more cost reflective. STUK comments “Charges based on a single year network model and supply/demand forecast for the relevant year should result in more accurate and stable prices, through removing the uncertainty associated with a ten year forecast. “

EDF notes “the transparency and predictability that this [aspect of the proposal] would give Users and DCCs would secure effective competition between gas shippers and gas suppliers, in line with GT Licence Objective 3, and will reflect developments in the Transportation business. We would further note that this will ensure that the reserve prices in the annual auction better reflect the costs that the Transporter is likely to incur in its Transportation Business than under the Transcost model where the reserve prices will be based on the next gas years charges. This therefore facilitates Objective 1 of the GT licence. “

### National Grid NTS's View

A single year model should allow the Charging Methodology to generate both locational and temporal pricing signals to Users. For example, where a large new entry project is anticipated to come on stream, exit users will be able to determine when connection to the NTS in the same locality is most efficient in terms of capacity provision (as local exit prices will be predictable and likely to fall after the entry point first flows onto the NTS). National Grid NTS can therefore avoid investment to continue to meet its security of supply obligations where users have made more informed choices regarding the timing of their connection to take advantage of lower prices in the future. This would not be the case for prices based on ten years of data.

While Users would be booking capacity without knowing the capacity price, using a single year's forecast would allow the prices for the remaining years of the ten year plan to be forecast by both National Grid NTS and the wider industry. It is anticipated that this feature of the revised methodology would give greater confidence to users and reduce risk associated with price uncertainty.

#### **Q4. Entry and exit LRMCs be calculated from the cost from a "reference node" to each relevant offtake point and the cost from each entry point to the "reference node" and that the LRMCs is adjusted to give a 50:50 split between average positive value of these adjusted Entry & Exit costs;**

### Respondents' Views

Five respondents (AEP, EON, RWE, SGN, UKD) offered support for this proposal.

RWE notes "National Grid NTS (NG) demonstrated at TCMF that using a reference node and where that reference node located is irrelevant to the level of capacity costs (entry and exit), and is used simply to disaggregate route costs into entry costs on a 50:50 basis. To this extent this concept appears consistent with the assumptions regarding excluding spare capacity and including backhaul benefit. "AEP "understand that the choice of reference node is immaterial if the entry / exit split is adjusted at a later stage."

EON notes that this approach "is similar in approach to the model used to determine electricity transmission charges" and "are happy for this to also be adopted in gas. Splitting charges between entry and exit may be appropriate to help provide for greater overall charge stability in terms of separate 'pools' of cost for entry and exit respectively. Without such ring-fencing, the over or under-recoveries at exit could affect costs borne by shippers at entry, and vice versa. This, in turn, can impact contractual arrangements and market prices at the NBP."

EON "question whether the split is correct given the degree of new investment required to accommodate a diverse range of new entry terminals. This might suggest that a greater proportion of current NTS assets are used to support the supply side (i.e. the producer side) rather than the demand side of the market. National Grid may wish to consider whether the 50:50 split is still appropriate in seeking to target costs at the appropriate players in the market."

UKD "support the use of a 50:50 forecast revenue split between entry and exit in determining the entry and exit LRMCs from the Transportation model. However, the means by which this would be achieved is unclear and we would welcome further details of this."

### National Grid NTS's View

The LRMCs are calculated such that the average positive entry and exit LRMCs are equal.

A single additive constant adjustment factor is calculated which, when added to each supply (NTS ASEP) initial nodal marginal cost, gives a revised supply marginal cost and when subtracted from each demand (NTS offtake) initial nodal marginal cost, gives a revised demand marginal distance for each demand. The calculation simultaneously removes the negative marginal distances by collaring the Initial Nodal Marginal Distances at zero. The Adjustment Factor is calculated such that the average marginal costs for supply and demand are equal.

## Option 2 – Transcost Based Approach

### Q5. LRMCs are calculated from Transcost, consequentially including spare capacity and excluding any backhaul benefit.

#### Respondents' Views

No support was offered for this proposal. Four respondents (EDF, EON, SGN, and SSE) do not support this proposal

EON believes “National Grid should move away from this approach, although E.ON UK are unclear as to whether the simplifications inherent in the Transportation Model may be too far removed from traditional engineering-based models, on which Transcost and its predecessor models are based. What E.ON UK would like to know is whether such simplifications could be considered to materially weaken cost reflectivity? A quick overview of the level of charges, comparing the current Transcost approach with the Transportation Model, tends to suggest that demand that is close to large and increasing sources of supply would benefit – and from a locational signal point of view this would seem to be appropriate.”

SGN notes “The inclusion of spare transmission capacity and the omission of backhaul benefit produce the counter intuitive allocation of costs to northern exit points and southern entry points that is shown in the TCMF Analysis Report (Oct 2006). “

SGN comments “Transcost has always been a relatively complex model to use, and is becoming more so because the less stable flow patterns expected in the near future make the choice of network configuration and compressor and regulator parameters more difficult and more time consuming and with a larger element of subjectivity. Using the model effectively would require a very good knowledge and understanding of the NTS. On the basis that NG NTS intend to make their LRMC model available to Users and DNs to enable them to replicate NG’s analyses and carry out their own sensitivity analyses it would be far more useful if the model provided is the Transportation model rather than Transcost.”

EDF notes “the issue associated with this approach is that no account is taken of spare capacity within the system, with any change in flows resulting in a reinforcement requirement. However the benefits of stability, transparency, predictability and avoidance of cross subsidisation overcome this minor failing. EDF would further note that by aligning the costs with the revenue recovery requirements so that an equal value is recovered from each element should aid consistency, whilst ensuring the correct proportions of revenue are recovered. “

EDF note that “the Transcost model is better placed to accommodate spare capacity than the Transportation model” and “in principle the inclusion of spare capacity and the exclusion of any backhaul benefit is a benefit of the Transcost model; however the price of achieving this principle is lack of transparency, stability and predictability, all of which will be detrimental to facilitating competition between gas suppliers and gas shippers. It is also clear that the inclusion of spare capacity may give some perverse locational signals and provide an incentive to maintain the current system configuration, rather than developing one which encourages the delivery of gas where demand is.”

SSE does not support the usage of the Transcost model as the indicative prices included in Appendix C do not reflect intuitive expectations. For example, exit nodes next to large entry sources are predicted to have large increases compared to current prices. This appears counter-intuitive considering that each GWh of offtake in such a situation should reduce the requirement for investment to transport the gas to a more distant exit node. NGG have informed the industry that by using this model a lower degree of cost reflectivity, transparency, repeatability, stability and ease of usage can be achieved compared with the Transportation model.

#### National Grid NTS's View

See response to question Q1.

**Q6. NTS Exit (Flat) Capacity Prices and auction reserve prices for all relevant Gas years are determined from a single weighted average analysis of the ten year Supply & Demand forecast using the current Gas Year's base model.**

#### Respondents' Views

Four respondents (EDF, RWE, SGN, and SSE) do not support this proposal.

RWE notes “Due to the inherent uncertainty associated with predicting gas demand and supply flows as the UK becomes more import dependant and as the requirement for gas generating capacity increases, we do not believe it is credible to continue to base flat capacity prices on a 10 year forecast of future demand/supply.”

SSE comments “Given the difficulty with accurate forecasting this methodology introduces potential errors compared with the Transportation model solution of using a single year forecast of supply and demand for a particular individual year. This generates inaccurate charges which are misleading and have inadequate transparency.”

#### National Grid NTS's View

See response to question Q3. In addition, a single year model will avoid the circularity caused by exit capacity prices feeding into the user commitment process being based on future network and supply/demand data which are, by their very nature, forecasts of future User commitment.

**Q7. Entry and exit LRMCs be calculated from route costs associated with an incremental flow of 2.834 Mscm<sup>1</sup> for every combination of entry and exit point and that the route LRMCs are disaggregated into entry and exit LRMCs using an excel based solver constrained to give a 50:50 split between average positive values of these adjusted Entry & Exit costs;**

#### Respondents' Views

“SGN does not support the continued use of the Transcost based methodology as described above to calculate LRMCs. SGN support the calculation of LRMCs using the less complex methodology of the Transportation model compared to Transcost. SGN do agree that the LRMCs should be adjusted to give a 50:50 split between average positive value of these adjusted Entry and Exit costs.”

EDF note “Whilst this model [Transcost] is able to accommodate spare capacity better than the Transportation model, we would note that the cost of this is less predictable prices and a less User friendly model. We do not believe that this will facilitate competition or give the transparency Users require for the User Commitment Model to operate effectively, and so will not reflect developments within the Transportation business. “

#### National Grid NTS's View

See response to question Q1.

## **Common Proposal Features**

**Q8. Prices are set at a nodal level rather than an exit Zone level for all NTS Exit points.**

#### Respondents' Views

Respondents (SGN, SSE, UKD) offered support for this proposal.

EON notes “This only affects DNs and is arguably more cost reflective. The zones are largely a hang-over from the pre-DN sales world where this formed the basis of shipper exit capacity charges for non-transmission connected customers and the concept of booking capacity by DNs was an irrelevance. It was thus simply a vehicle for seeking to fairly allocate exit charges across the country.”

EDF notes that “Under the current regime when a Shipper/Supplier is developing his prices for a consumer, be it commercial or domestic, a central element is identifying the applicable exit zone and therefore the Transportation charges that will apply, including NTS exit capacity. However it is not clear how this will work under the proposed regime with the move from zonal to nodal pricing. It would appear that either very complex systems will be needed to identify which node serves which customers or the Gas Distribution Networks (GDNs) will need to develop an entirely new methodology for recovering these costs. Either process will require the development of new systems and so represent a cost to Shippers, negatively impacting on competition. This would therefore appear detrimental to facilitation of GT Licence objective 3. “

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<sup>1</sup> The use of the 2.384 Mscm (100 Mscf) increment represents approximately 10% of flow down a typical NTS feeder and is unchanged from the prevailing methodology.

The AEP notes “Prices are already set at the nodal level for all offtakes other than those serving the distribution networks, so the question is whether nodal prices should be set for DN offtakes. Following the comments in paragraph 5.43 in the TCMF Progress Report PR01 that ‘the allocation of LDZ customers to NTS exit zones is a DN activity’ it would seem reasonable to set charges for each offtake individually to ensure that the DNs respond appropriately to the locational signals provided in the context of its wider obligations and incentives. AEP would also expect to see further papers considering consequential changes to the DN charging methodology so that customers may understand the full impact of these proposals.”

RWE support this approach in principle but “are concerned that this could lead DNs to fundamentally re-appraise how they pass on the costs of NTS capacity to their LDZ connected customers. Any move away from charging LDZ connected customers based on their LDZ Exit Zone will have a material impact on shipper/supplier registration and billing systems. Before accepting such an approach therefore we would welcome an early view from DNOs about how such an approach is likely to impact on how they intend to pass on such charges. “

#### National Grid NTS's View

It is proposed that NTS Exit (Flat) Capacity would be released on a nodal basis and hence prices must be generated on a nodal basis, however National Grid NTS recognises respondents concerns regarding how costs might be passed on to consumers within the DNs. National Grid welcomes the commitment made by DN representatives within the Gas TCMF to bring forward proposals as to how NTS Exit costs might be passed on to DN consumers should NTS Exit capacity be released on a nodal basis.

### **Q9. Exit LRMCs are converted into prices using the annuitisation factor set out in National Grid's NTS Transportation Licence.**

#### Respondents' Views

Seven respondents (AEP, EON, RWE, SGN, SSE, STUK, UKD) offered support for this proposal. EON notes “This seems reasonable and is consistent with the approach adopted for electricity transmission use of system charges.”

#### National Grid NTS's View

National Grid NTS will seek to include this feature in any future proposals.

### **Q10. No year-on-year capping of NTS Exit Capacity prices is included in the methodology.**

#### Respondents' Views

EON notes “Given the radical changes in the pattern of supplies on the NTS, E.ON UK would support this change because charges might otherwise become significantly out of step with the underlying LRMCs. This would not be particularly cost reflective.”

SGN does not support this proposal on the grounds that it could allow an unacceptable degree of variability and unpredictability in the NTS Exit Capacity prices. Under the new regime DNs will be required to make economic decisions between booking additional NTS Exit Capacity and investing in their own networks. It will be extremely difficult for the DNs to make rational decisions in a regime where one element of these decisions, the Exit Capacity charges, may be subject to large year-on-year changes.

Given that NTS Exit Capacity charges have not been rebalanced to reflect changes in the supply/demand balance and network configuration since 2001 the changes at some exit points could well be quite substantial. SGN believes it would be quite unreasonable to impose large changes on the industry in a single year, and that large changes should be phased over a number of years. The impact of phasing on cost-reflectivity would be temporary and it is difficult to see why NG NTS would consider this a serious problem given their lack of action in this area since 2001. SGN therefore believes that the option of capping changes in the charges should be re-considered and it should be included in any subsequent pricing consultation paper.

UKD “consider that the issue of whether there should be capping of year-on-year changes to NTS exit capacity prices depends upon the extent of variation that there is likely to be with uncapped prices. Again, further information would be beneficial to deciding upon this issue.”

EDF “values predictability of charges over stability of charges, and so this is an acceptable approach when combined with the Transportation model, as this will ensure that charges reflect the cost of operating the system. However if predictability of charges is not available then stability of charges becomes important, suggesting that the cap should be in place were the Transcost model continue to be utilised. As noted in the consultation this has resulted in charges becoming detached from the LRMC, however this could be overcome by realigning the charges at the start of every price control. This would ensure that charges reflected the costs of operating the system, whilst ensuring that prices remained stable within the price control period. “

“STUK agree that year-on-year capping of NTS Exit Capacity prices ought to be removed from the methodology as this should result in more cost reflective charging and we further concur that interruptible NTS Exit (Flat) Capacity prices are discounted by 100%, to reflect the fact there will be no associated investment.”

AEP “support the removal of year-on-year capping in principle as we recognise the limitations this can cause, particularly a departure from cost-reflective charges. However AEP consider it is important that charging ‘shocks’ are avoided. The publication of indicative charges for at least the next three years will assist in achieving this aim. Significant deviations between indicative and actual charges should be explained. “

SSE does not support the removal of a cap on year on year price changes. Large year on year changes to charges will lead to a lack of stability and greater uncertainty. This lack of stability and increased risk will dissuade investment in the UK, potentially having a detrimental affect on security of supply.

SSE notes that “Ofgem have determined that changes to electricity DUoS charges are capped at 10 %/annum. SSE request a similar cap is applied to Gas Transmission charges to help maintain cost stability.”

RWE “accept that year on year capping of flat capacity prices is no longer appropriate provided the model proves to be as user friendly and predictable as indicated, and provided that where material deviations arise between forecast and actual prices these are explainable.”

#### National Grid NTS's View

National Grid NTS understand that the price capping included within the Electricity Distribution charging methodologies was as a result of exceptional circumstances and that where more cost reflective changes can be identified these should not be distorted by capping price changes.

National Grid NTS notes that the introduction of the a single year transportation model would allow prices to be forecast a number of years ahead of application hence mitigating the risk of price shocks.

**Q11. Interruptible NTS Exit (Flat) Capacity Prices are discounted by 100%**Respondents' Views

Four respondents (AEP, EDF, RWE, SGN, SSE) offer supports for this proposal

UKD “note that the proposed Exit capacity Release Methodology Statement does not cover the release of daily interruptible NTS exit (flat) capacity. We would welcome further details of the arrangements for the release of such capacity prior to determining the appropriate reserve price. “

EDF comments “Given that interruptible capacity will be available through either a Use It or Lose It (UIOLI) mechanism or a zero cost dependant on configuration of the system, it appears reasonable that Interruptible Flat Exit Capacity should be released at a zero cost reserve price. This will facilitate licence objectives 1, 3 and 4.”

SSE would also like to know the level of interruption that NGG think it will contract for and the location of such requirements. This is important as the potential cost increases may be offset by offering interruptible services.

EON “support the 100% discount for existing interruptible capacity or any daily interruptible capacity, should this be implemented as part of Modification Proposal 116” and “assume that interruption payments would be included in the Charging Methodology if E.ON UK’s Modification Proposal 116A is implemented and the transitional arrangements effectively become the “enduring” arrangements.”

National Grid NTS’s View

National Grid NTS will seek to include this feature in any future proposals.

**Other Issues****Revenue Recovery**

Respondents (EON, SSE, SGN, UKD) commented on the level of revenue recovered by the indicative charges and expressed the view that all, or a greater proportion, of TO Exit allowed revenue should be recovered through the TO Exit (Flat) Capacity charges and that options should be investigated for adjusting charges.

UKD “consider that it is better where possible to recover TO-related revenue by capacity charges rather than commodity charges, since the TO revenue relates primarily to transportation assets, and thus would support scaling of the TO exit charges so as to recover 50% of the forecast TO price control revenue for the relevant year. We consider that this would be more cost-reflective than a combination of TO exit capacity and exit commodity charges. “

EON notes “LRMCs would only recover around 45% of the allowed TO revenue. This is not appropriate and E.ON UK would rather have this set close to the ‘fixed cost level’. Any over-recovery from flexibility could then be reflected in the exit commodity charge(s).”

“SGN believes that it is unrealistic for NGNTS to plan to recover such a low percentage of target allowed revenue from the Exit (Flat) Capacity Charges. The reason for not adjusting the charges is not given in the paper, but in NTS GCD 03 it is said that in discussion at the Gas TCMF it was apparently recognised that revenue recovery through adjusted Exit Capacity charges is more consistent with an administered pricing regime whereas commodity charges are more consistent with a regime including auctions. The concern is apparently that adjusted exit capacity charges might distort auction behaviour and capacity price locational incentives. However because the bulk of the Exit (Flat) capacity will be sold as “Prevailing” for which charges will be set by NG NTS the regime will still be largely one with administered prices and therefore adjusted capacity charges would still be appropriate. “

SGN notes “Recovering such a high proportion of the Exit Capacity revenue through a commodity charge would create additional problems for the DNs because the revenue to be paid through commodity charges is far less predictable than the revenue to be paid through capacity charges. This is particularly the case as the DNs are currently in the process of reducing the proportion of commodity-based charges in their charging structures.”

SGN comments “It is not clear why the Exit (Flat) Capacity charges should not be adjusted under the enduring offtake arrangements when in the Consultation Document NTS GCM 01 “Alternative Methodologies for Determination of NTS Entry and Exit Capacity Prices” which covers the transition period up to 30 September 2010 it is proposed that the charges be adjusted to recover the target TO allowed revenue (para 4.18). This paragraph proposes that the charges be adjusted additively, rather than proportionately, as at present, as an additive adjustment would preserve the locational differentials between the “raw” NTS Exit Capacity charges. It appears that the same logic is not applied in NTS GCD 01 because adjusted charges might distort auction behaviour. However, as the bulk of Exit Capacity will be “Prevailing” to which administered charges will apply the difference in treatment does not seem valid.”

SSE “considers that devising a set of charges to under-recover at this magnitude to be unacceptable and consider it questionable in terms of licence obligations to knowingly set charges to under/over recover allowed revenue.”

SSE “believes that most exit capacity will be purchased through prevailing rights at the reserve price with competition rarely occurring at a node. The prevailing rights mechanism will be more closely aligned to an administered scheme rather than a true auction where competition can be expected at nodes. SSE also consider that re-distribution of revenue through Commodity charges is just as likely to influence participants’ auction behaviour (albeit in another way) as re-distribution through Capacity. Therefore, SSE considers it more appropriate to adjust or scale prices to recover allowed revenue.”

#### National Grid NTS's View

National Grid NTS’ initial view was that setting NTS Exit (Flat) Capacity prices based on unscaled LRMCs and ensuring recovery of allowed revenue would maximise price stability and minimise the impact of prices on flat and flex capacity auction behaviour and hence consulted on this basis. National Grid NTS has reconsidered this view given the overwhelming negative response to this proposal.

The uncertainty associated with flex capacity auctions had largely led to the initial proposal of revenue recovery via a commodity charge rather than calculating NTS Exit (Flat) Capacity charges to recover all forecast TO Exit revenue. NTS Exit (Flat) Capacity charges could, however, be calculated to recover all forecast TO Exit revenue provided that all NTS Exit (Flexibility) Capacity revenue was redistributed through a negative commodity charge element. Indicative charges calculated on this basis have been provided to the Gas TCMF and are available on the National Grid information website. This approach should generate stable and cost reflective Flat Capacity charges.

## **Negative Charges**

### Respondents' Views

SSE “would like NGG to make available and consider implementing charges that are not floored at 0.0001 p/kWh (following adjustment) but are unconstrained and permitted to be negative. SSE considers that this may be even more cost reflective and would provide locational pricing and allow more informed investment decisions to be made by Users. Negative capacity charges are used in electricity and provide unbiased locational signals for investment. For example, it is clear that Peterhead power station provides benefits to the gas network because of its location close to St Fergus. The Transport model would suggest that it is in such a location on the gas network that its charges should be negative.”

### National Grid NTS' View

Negative prices only really have any meaning if they are coupled with a ‘must flow’ obligation which would add unwarranted complexity to the regime. Negative capacity prices would otherwise create an incentive on Users to over state their capacity requirements and hence might lead to inefficient system design. Large Gas consumers can already offer demand increase through the locational market of the On-the-day Commodity Market (OCM) and hence can benefit from these offers being accepted if the location of their offtakes represents a material benefit.

The removal of negative prices should be at a stage in the adjustment process that preserves locational signals at exit and this is achieved by removing them as part of the final revenue recovery adjustment step. Deferring the removal of negative prices until the final step should therefore improve cost reflectivity.

While negative capacity prices can be discounted there may be merit in the Gas TCMF investigating how negative LRMCs might be commoditised.

## **Phasing**

### Respondents' Views

Implementation of enduring exit reform will have a significant cost impact due to use of the transportation model and the loss of interruptible status. As a result SSE requests a phasing of cost increases to be implemented over the enduring period. Such a mechanism would only pass through a percentage of anticipated costs each year to provide a buffer against step changes. SSE note that Ofgem have determined that changes to electricity DUoS charges are capped at 10 % per annum. SSE supports a similar cap being applied to Gas Transmission charges to help maintain cost stability.

National Grid NTS' View

National Grid NTS recognises that resulting price changes may be more significant than in recent years however, under a transportation model based approach the prices could be forecast and sensitivity analysis carried out by Users. The charges would not be applicable until 1<sup>st</sup> October 2010.

**Treatment of Adopted Connections**Respondents' Views

EON does not understand why the indicative charges using the Transportation Model are not identical for Deeside and Connah's Quay power stations. EON notes "It was always our understanding that charges for all users connected to the Mickel Trafford to Deeside pipeline were determined at Mickel Trafford. This is because although this pipeline was originally paid for by National Power and Powergen, it was adopted by National Grid. Therefore, no capacity charges should be applied for use of this asset and the capital cost of it should not be included within National Grid's regulated assets base."

National Grid NTS' View

National Grid NTS recognises that including connections that have already been fully paid for within the model would lead to charges that over recover locationally and hence will seek to modify any future methodology by including such connections at zero length within the charging model.