

Stage 01: Proposal

What stage is this document in the process?

01

Proposal



Workstream Report



Draft Modification Report



Final Modification Report

0356 Demand Data for the NTS Exit (Flat) Capacity Charging Methodology

Defines the demand flow data, used within the NTS Charging Transportation Model for calculating NTS Exit (Flat) Capacity charges from 1st October 2012, as the forecast undiversified 1-in-20 peak day demand.



The Proposer recommends

This <u>amended modification</u> is <u>to be considered by Workgroup</u> 0356



Medium Impact:

All participants holding NTS Exit (Flat) Capacity affected



Low Impact:

UNC Panel, the Authority, and Joint Office

Modification 0356

06 October 2011

Version 3.0

Page 1 of 26

Contents	
1 Summary	3
2 Why Change?	5
3 Solution	7
4 Relevant Objectives	11
5 Impacts and Costs	13
6 Implementation	16
7 The Case for Change	17
8 Legal Text	18
9 Recommendation	21
10 Further Information	22

About this document:

This document is an amended modification, which will be presented by the Proposer to the UNC Modification 0356 Workgroup.



Any questions?	
Contact:	
Richard Hounslea	



Richard.hounslea@uk.n grid.com



01926 65 5518

Proposer:

National Grid NTS



Eddie.j.blackburn@uk.n grid.com



01926 65 6022

Modification 0356

0<u>6 October</u> 2011

Version $\underline{3}.0$

Page 2 of <u>26</u>

1 Summary

Why Change?

A supply and demand match is required within the NTS charging Transportation Model, which is used for NTS capacity charge setting purposes. The data used for NTS Exit (Flat) Capacity charge setting purposes from 1st October 2012 in accordance with the NTS charging methodology, is as follows;

- The modelled demand flow is the obligated (baseline plus incremental) level of NTS Exit (Flat) Capacity, other than at bi-directional sites with physical entry capability (Storage, IUK, and BBL) where the modelled demand flow is zero.
- The modelled supply flow is derived from the supply/demand data set out in the most recently <u>published National Grid</u> Ten Year Statement for each year for which prices are being set.

Increases in the obligated level of NTS Exit (Flat) Capacity and reductions in the level of NTS available supplies have resulted in an unworkable charging methodology as the aggregate obligated NTS Exit (Flat) Capacity level (at non bi-directional sites) is greater than the available NTS Supplies.

Solution

It is proposed that for the setting of prices the inputs to the NTS Transportation Model will be as follows;

- For bi-directional sites the modelled demand will be the undiversified NTS forecast 1-in-20 peak day demand¹.
- For bi-directional sites with physical entry capability (storage, IUK, and BBL) the forecast demand is zero.
- For bi-directional sites with no physical entry capability (Moffat) the forecast <u>will be</u> the undiversified NTS forecast 1-in-20 peak day demand.
- For NTS/LDZ offtakes, the modelled demand will be the undiversified NTS forecast 1-in-20 peak day demand for the <u>relevant LDZ</u>, and <u>this demand</u> will be prorated <u>between</u> the relevant <u>NTS/LDZ</u> offtakes based on the booked NTS Exit (Flat) Capacity.
- For other directly connected (DC) <u>NTS</u> offtakes (Power Generation & Industrials) the modelled demand will be the undiversified NTS forecast 1-in-20 peak day demand.

For inputs into the NTS Transportation Model, the undiversified NTS forecast 1-in-20 peak day demand for the DNs, Moffat, and other directly connected (DC) offtakes will be capped at the obligated (baseline + incremental) capacity level.

For the purposes of <u>calculating</u> indicative prices the modelled demand flow will be as outlined above but with no capping <u>of the forecast to</u> the obligated level. This is due to that fact that at the time of setting indicative prices the obligated level may not be relevant as it may change as a result of subsequent <u>exit capacity</u> applications.



What Supply Data is used for NTS Capacity Charge setting purposes?

The nodal supply data for the Transport Model is derived from the supply data set out in the most recent Ten Year Statement for each year for which prices are being set. The aggregate storage and Interconnector flows will be adjusted such that a supply and demand balance is achieved. This initial supply and demand match is achieved by reducing supplies in a merit order to match the forecast demand.



"Forecast" & "Estimate"

UNC TPD Section O, 4.1.2b (ii) refers to "estimates" of "1-in-20 peak day demand".

UNC TPD Section O, 4.1.3 states that the estimates under paragraph 4.1.2b (ii) "will be given in respect of each NTS Exit Point on an individual basis..."

For the purposes of this modification "forecast" and "estimate" are interchangeable terms.

1-in-20 peak day demand at the aggregate level is by definition "diversified" but at the exit point level becomes "undiversified". Therefore, "undiversified NTS forecast 1-in-20 peak day demand" is appropriate when applied to individual exit points.

Modification 0356

06 October 2011

Version 3.0

Page 3 of <u>26</u>

¹ National Grid's "Gas Demand Forecasting Methodology", Chapter 2.9

<u>It is further proposed that estimates of 1-in-20 peak day demand data will</u> be produced and published on an individual NTS Exit Point basis, in accordance with UNC TPD Section O, for years "0 to 4".

This <u>will</u> ensure that a supply and demand match <u>can</u> be achieved for charge setting purposes. It is anticipated that National Grid's undiversified NTS forecast 1-in-20 peak day demand, consistent with this <u>modification</u>, will be published in the <u>National Grid</u> Ten Year Statement <u>going forward</u>.

Impacts and Costs

The proposal represents a change to NTS internal manual processes <u>only</u> and hence there are no systems impacts and no costs have been identified for Users.

Implementation

Implementation is required in time for prices to be set by 1st May 2012 such that they become applicable from 1st October 2012. <u>It is therefore proposed that</u>;

- Subject to an Authority decision published by 30th April 2012 then this proposal will be implemented on 1st May 2012.
- Subject to an Authority decision published after 30th April 2012, and before 31st
 July, then it is proposed that this proposal is implemented on 1st August 2012.
- Subject to an Authority decision published after 31st July 2012 then it is proposed that this proposal is implemented as soon as reasonably practical.

National Grid is also required to produce indicative prices ahead of the annual NTS Exit (Flat) Capacity application windows and the next relevant window, in regard to indicative price setting, will be July 2012. National Grid NTS believes that ideally, indicative charges should be based on an approved NTS Charging Methodology, and should at least be based on a proposed Charging Methodology.

The Case for Change

The Proposal would result in a workable Charging Methodology for the derivation of NTS Exit (Flat) Capacity Prices.

Using demand flow data within the NTS charge setting Transportation Model would better reflect connected NTS load at peak conditions and would better reflect the data used within the NTS planning and investment processes. As a consequence of using this data, charges will better reflect the cost incurred in making NTS Exit (Flat) Capacity available.

Recommendations

The Proposer invites the Workgroup to:

Recommend that Modification 0356 is sufficiently developed to proceed to consultation.

Modification 0356

<u>06 October</u> 2011

Version 3.0

Page 4 of <u>26</u>



2 Why Change?

A supply and demand match is required within the NTS charging Transportation Model, which is used for NTS capacity charge setting purposes. The data used for NTS Exit (Flat) Capacity charge setting purposes from 1st October 2012 in accordance with the prevailing NTS charging methodology, is as follows;

- The modelled demand flow is the obligated (baseline plus incremental) level of NTS Exit (Flat) Capacity, other than at bi-directional sites with physical entry capability (storage, IUK, and BBL) where the modelled demand flow is zero. This equates to a level of 7800 GWh/day for 2012/13.
- The modelled supply flow is derived from the supply/demand data set out in the most recent Ten Year Statement for each year for which prices are being set.

Through the Gas TCMF, issues associated with the NTS Exit (Flat) Capacity price setting methodology, to be used from 1st October 2012, were raised;

Issue One - Demands vs. Supplies

The first issue identified was that using baseline plus incremental capacity, for the demand flow data, could create a demand level so high that the modelled supplies would not be able to achieve the required supply/demand balance, resulting in an unworkable methodology. This has proved to be the case as a consequence of the updated 2010 Ten Year Statement supply data. The modelled demand flow - the obligated (baseline plus incremental) level of NTS Exit (Flat) Capacity, other than at bi-directional sites with physical entry capability (storage, IUK, and BBL) where the modelled demand flow is zero, equates to a level of 7800 GWh/day for 2012/13. The Ten Year Statement available supplies for 2012/13, taking into account IUK capability, are 7718 GWh/day.

Issue Two - Price Variability

The second issue identified was the variability of NTS Exit Capacity prices at the southern Scottish and Northern DN NTS Exit Points, and the Moffat NTS Exit Point.

This variability occurs when the modelled supplies at St. Fergus are insufficient to meet the higher Scottish and Northern DN, and Moffat modelled demand flows. This is a consequence of reduced St Fergus supplies and baselines plus incremental NTS Exit (Flat) Capacity being used to model demand flows. As a result, a greater proportion of supply flows are required from the south of the network to meet the demand further north, leading to higher NTS Exit (Flat) Capacity prices.

Issue Three - Baseline may no longer be reflective of "connected load"

In developing the enduring NTS Exit (Flat) Capacity charge setting arrangements, the intention was to better reflect the "connected load", recognising that the concepts of Firm and Interruptible capacity were no longer applicable. The resultant move towards the use of the baseline plus incremental capacity as the demand flow level may now no longer be reflective of the "connected load".

GCM05

The enduring NTS Exit (Flat) Capacity charge setting arrangements were introduced via NTS Gas Charging Methodology proposal GCM05.

For more information see; http://www.nationalgrid.c om/uk/Gas/Charges/cons ultations/archive_consulta tion_papers/

Modification 0356

06 October 2011

Version 3.0

Page 5 of <u>26</u>

In respect of the DNs, some offtakes are not booked up to the baseline level but other offtake bookings have triggered incremental capacity, with the aggregate baseline plus incremental level being in excess of the forecasted 1-in-20 peak day demand.

For Moffat, the aggregate booking level has triggered a significant amount of incremental capacity despite the capability of the downstream infrastructure being far less than the amount of capacity booked.

Offtake Data (GWh/day) for 2012/13		
Offtake	Obligated Capacity	Forecast Demand
Moffat	529	273
DN	5466	4344

Modification 0356

<u>06 October</u> 2011

Version $\underline{3}.0$

Page 6 of <u>26</u>

Gas TCMF Discussions and Options

Following discussions at the Gas Transmission Charging Methodologies Forum (TCMF) between May and September 2010, discussion paper GCD09 was issued to seek views on the merits of a number of alternative options for modelling supply and demand flows within National Grid's Transportation Model.

It is the modelled supply and demand flows, along with the network pipe distances, that drive the calculation of the long run marginal costs (LRMCs) and hence the price differences across the NTS.

For the avoidance of doubt, the options identified in GCD09 did not relate to the capacity data used in the Tariff section of the Transportation Model, which uses Baseline (TO) NTS Exit (Flat) Capacity data at all NTS Exit Points in order to ensure that prices are adjusted so that the implied revenue level (price multiplied by the baseline (TO) NTS Exit (Flat) Capacity quantity) equals National Grids target TO exit revenue. This ensures that if baseline (TO) NTS Exit (Flat) Capacity is fully booked, the resulting capacity revenue would equal National Grid's target TO exit revenue. If baseline (TO) NTS Exit (Flat) Capacity is not fully booked, revenue associated with unsold baseline capacity will be collected from a TO Exit Commodity Charge.

In respect of demand flows, the options identified in GCD09 were;

- Baseline plus Incremental NTS Exit (Flat) Capacity
- Annual NTS Exit (Flat) Capacity Bookings
- Forecast
- Maximum Supply Point Offtake Rate (MSPOR)
- Capability of the downstream facility
- Zero (currently used for physically bi-directional sites with physical entry capability: storage, IUK, and BBL)

It was anticipated that a combination of these options could be applied such that each different offtake type might be modelled by a separate data source.

In respect of beach/UKCS supply flows, the options identified were;

- Ten Year Statement forecast supplies (no change from current method)
- Baseline supply data
- Average of Ten Year Statement forecast data
- Ten Year Statement Forecast Supplies (Data from Ten Year Statement before the first Y+4 Enduring Annual NTS Exit (Flat) Capacity applications for the relevant Gas Year)

"1-in-20 peak day demand"

2.6.4 For the purposes of the Code, in relation to the Total System, any part of the Total System, a System or any part of a System, and in respect of any Gas Year:

"1-in-20 peak day demand" is the peak day demand that, in a long series of winters, with connected load being held at the levels appropriate to the winter in question, would be exceeded in one out of 20 winters, each winter being counted only

Modification 0356

06 October 2011

Version 3.0

Page 7 of <u>26</u>

Respondents to NTS charging discussion paper GCD09 were asked for views on these options, for the purposes of developing charging methodology proposals.

Feasibility of Demand Flow Options	
Baseline plus Incremental NTS Exit (Flat) Capacity	This is the prevailing methodology applicable from 1 st October 2012 and is no longer workable if used for all NTS Exit Points.
Annual NTS Exit (Flat) Capacity Bookings	Daily bookings and some annual bookings would not be available at the time of setting charges. This option may result in Users, relying on the daily and off-peak products, not appropriately contributing to TO costs.
Forecast	This option represents the most realistic expectation of maximum flow.
Maximum Supply Point Offtake Rate (MSPOR)	This option is not anticipated to result in a workable methodology due to the high aggregate level of MSPOR.
Capability of the downstream facility	No definitive value for capability, other than the obligated (baseline plus incremental) capacity level was identified for offtakes other than interconnectors.
Zero (currently used for bi-directional sites with physical entry capability: storage, BBL, and IUK)	This option represents the prevailing peak forecast for storage offtakes, BBL and IUK.

Respondents to GCD09 suggested that there may be some benefit in waiting for the 2011 NTS Exit (Flat) Capacity reduction window before raising a charging methodology proposal; however, the level of obligated (baseline plus incremental) capacity would not be reduced as a result of capacity reductions.

Respondents to GCD09 suggested that there may be some benefit in waiting for the impact of the application of NTS exit capacity substitution following the 2011 NTS Exit (Flat) Capacity application window before raising a charging methodology proposal. The level of obligated (baseline plus incremental) NTS Exit (Flat) Capacity would only reduce as a result of unsold NTS Exit (Flat) Capacity being substituted for incremental NTS Exit (Flat) Capacity with a high exchange rate. This seems unlikely to have a significant impact on the level of obligated NTS Exit (Flat) Capacity given the level of unsold capacity and the potential for incremental NTS Exit (Flat) Capacity. It should be noted that if NTS exit capacity substitution occurred with a one to one ratio then there would be no change in the obligated NTS Exit (Flat) Capacity level as a result of incremental capacity being met through substitution.

Based on responses to the GCD09 discussion paper and from analysis of the options, National Grid has concluded that modelling the demand flows as forecast demand would be the most appropriate solution.

Modification 0356

06 October 2011

Version $\underline{3}.0$

Page 8 of <u>26</u>

Feasibility of Supply Flow Options	
Ten Year Statement forecast supplies (no change from current method)	This is the prevailing methodology applicable from 1 st October 2012 and would remain viable should demands be modelled at the forecast level. This option represents the most realistic expectation of maximum flow.
Baseline supply data	This option may allow for a supply demand balance should demand flows continue to be modelled as the obligated (baseline plus incremental) capacity. This option does not represent a realistic expectation of maximum flow.
Average of Ten Year Statement forecast data	This option may have the potential to reduce price volatility but further analysis has been requested.
Ten Year Statement Forecast Supplies (Data from Ten Year Statement before the first Y+4 Enduring Annual NTS Exit (Flat) Capacity applications for the relevant gas year)	This option may have the potential to reduce price volatility but further analysis has been requested. Using the data from the time of the relevant investment decisions relating to NTS Exit (Flat) Capacity may be more cost reflective.

Based on responses to the GCD09 discussion paper and from analysis of the options, National Grid has concluded that making changes to the modelled supply flows would not be appropriate at this time. National Grid will carry out further analysis, as requested, and will consider the consistency of the data used for both NTS Entry and Exit capacity charge setting purposes before bringing forward further proposals.

The Proposal

It is proposed that for the setting of prices the inputs to the NTS Transportation Model will be as follows;

- For bi-directional sites the modelled demand will be the undiversified NTS forecast 1-in-20 peak day demand.
- For bi-directional sites with physical entry capability (storage, IUK, and BBL) the forecast demand is zero.
- For bi-directional sites with no physical entry capability (Moffat) the forecast <u>will be</u> the undiversified NTS forecast 1-in-20 peak day demand.
- For NTS/LDZ offtakes, the modelled demand will be the undiversified NTS forecast 1-in-20 peak day demand for the <u>relevant LDZ</u>, and <u>this demand</u> will be prorated <u>between</u> the relevant <u>NTS/LDZ</u> offtakes based on the booked NTS Exit (Flat) Capacity.
- For other directly connected (DC) <u>NTS</u> offtakes (Power Generation & Industrials) the modelled demand will be the undiversified NTS forecast 1-in-20 peak day demand.

For inputs into the NTS Transportation Model, the undiversified NTS forecast 1-in-20 peak day demand for the DNs, Moffat, and other directly connected (DC) offtakes will be capped at the obligated (baseline + incremental) capacity level.

For the purposes of <u>calculating</u> indicative prices the modelled demand flow will be as outlined above but with no capping <u>of the forecast to</u> the obligated level. This is due to

Modification 0356

<u>06 October</u> 2011

Version 3.0

Page 9 of <u>26</u>

that fact that at the time of setting indicative prices the obligated level may not be relevant as it may change as a result of subsequent <u>exit capacity</u> applications.

<u>It is further proposed that estimates of 1-in-20 peak day demand data will</u> be produced and published on an individual NTS Exit Point basis, in accordance with UNC TPD Section O, for years "0 to 4".

This <u>will</u> ensure that a supply and demand match <u>can</u> be achieved for charge setting purposes. <u>It is anticipated that</u> National Grid's undiversified NTS forecast 1-in-20 peak day demand, <u>consistent with this modification</u>, <u>will be published</u> in the <u>National Grid</u> Ten Year Statement <u>going forward</u>.

It is also proposed that the following paragraphs are modified with a view to increasing their clarity from a legal perspective;

<u>UNC Section Y – Charging Methodologies, Part A, Appendix C, Chapter 2, 2.5.1 The Transport Model – "Model Input Data" & "Model Inputs".</u>

This will not change the underlying obligations but only the way in which they are expressed, as set out in the Suggested Legal Text that has been provided as part of this modification.

Modification 0356

06 October 2011

Version <u>3</u>.0

Page 10 of <u>26</u>

4 Relevant Objectives

The Proposer believes that 0356 will better facilitate the achievement of **Relevant Objectives a, b and c**

Proposer's view of the benefits of 0356 against the Code Relevant Objective	ac .
Description of Relevant Objective	Identified impact
(a) save in so far as paragraphs (aa) or (d) apply, that compliance with the charging methodology results in charges which reflect the costs incurred by the licensee in its transportation business;	See explanation below
 (aa) that, in so far as prices in respect of transportation arrangements are established by auction, either: (i) no reserve price is applied, or (ii) that reserve price is set at a level - (I) best calculated to promote efficiency and avoid undue preference in the supply of transportation services; and (II) best calculated to promote competition between gas suppliers and between gas shippers; 	None
(b) that, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;	See explanation below
(c) that, so far as is consistent with sub-paragraphs (a) and (b), compliance with the charging methodology facilitates effective competition between gas shippers and between gas suppliers; and	See explanation below
(d) that the charging methodology reflects any alternative arrangements put in place in accordance with a determination made by the Secretary of State under paragraph 2A(a) of Standard Special Condition A27 (Disposal of Assets).	None

Implementation would be expected to better facilitate the achievement of the Relevant Objectives on the basis of Standard Special Condition A5 of the National Grid NTS Licence:

Reflecting the costs incurred by the licensee in its transportation business

Using <u>forecast</u> demand flow data within the NTS charge setting Transportation Model would better reflect connected NTS load at peak conditions and <u>be consistent with</u> the data used within the NTS planning and investment processes <u>which drive the costs</u> incurred in making NTS Exit (Flat) Capacity available. As a consequence of using <u>forecast demand flow</u> data, charges should better reflect the cost incurred in making NTS Exit (Flat) Capacity available.

Taking account of developments in the transportation business

The prevailing methodology for setting NTS Exit (Flat) Capacity charges from 1st October 2012 uses baseline plus incremental capacity (obligated capacity), for the demand flow data. It was highlighted that this could create a demand level so high that the modelled



Charging Methodology Relevant Objectives

"relevant objectives"
means, in respect of the
UNC charging
methodologies, only; in
relation to the charging
methodology regulated by
Standard Special
Condition A5 the "relevant
methodology objectives"
listed in paragraph 5 of
that condition,

Modification 0356

06 October 2011

Version 3.0

Page 11 of <u>26</u>

supplies would not be able to achieve the required supply/demand balance, resulting in an unworkable NTS charging methodology. This has proved to be the case as a consequence of the level of obligated capacity triggered and the updated 2010 Ten Year Statement supply data. Updating the charging methodology to reflect this changed position would therefore be consistent with taking account of developments in the transportation business.

Facilitating effective competition between gas shippers and between gas suppliers

Basing the NTS charging methodology on data that will be published in the Ten Year Statement from 2011 should ensure a transparent charging methodology such that Users can replicate the charge setting process and forecast future charge levels. National Grid believes that promoting transparency of the charging methodology is consistent with the facilitation of competition between gas shippers. National Grid NTS will produce a version of the charge setting Transportation Model which allows the application of the proposed methodology in terms of the calculation of offtake demands to be replicated more easily.

Ensuring that the charging methodology is cost reflective should ensure that shippers face the costs resulting from their connection decisions and hence cross subsidies are avoided. National Grid believes that avoiding cross subsidies is consistent with the facilitation of competition between gas shippers.

Licence Compliance

The Modification does not conflict with paragraphs 2, 2A and 3 of Standard Special Condition A4 of the Transporter's Licence as the <u>modification</u> is consistent with setting NTS Exit (Flat) Capacity charges from 1st October 2012 and from the 1st October in each subsequent year.

Modification 0356

06 October 2011

Version <u>3</u>.0

Page 12 of <u>26</u>

5 Impacts and Costs

This proposal represents a change to internal NTS manual processes.

Costs

Indicative industry costs

No industry implementation costs have been identified

Impacts

Impact on Transporters' Systems and Process	
Transporters' System/Process	Potential impact
UK Link	• None
Operational Processes	Internal changes to manual price setting processes
User Pays implications	• None

Impact on Users	
Area of Users' business	Potential impact
Administrative and operational	None
Development, capital and operating costs	• None
Contractual risks	 Implementation of this proposal would impact on the setting of NTS Exit (Flat) Capacity charges which Users will attract as a result of previous applications for NTS.
Legislative, regulatory and contractual obligations and relationships	• None

Impact on Transporters	
Area of Transporters' business	Potential impact
System operation	• None
Development, capital and operating costs	None
Recovery of costs	The <u>modification</u> would allow NTS to recover transportation costs associated with providing NTS Exit (Flat) Capacity
Price regulation	The <u>modification</u> would allow NTS to recover transportation costs associated with providing NTS Exit (Flat) Capacity
Contractual risks	None
Legislative, regulatory and contractual obligations and relationships	Implementation of this modification would facilitate a cost reflective NTS pricing Methodology in regard to NTS Exit (Flat) Capacity Prices as required by the NTS Licence.

Panel paper number

Modification 0356

<u>06 October</u> 2011

Version $\underline{3}.0$

Page 13 of <u>26</u>

Impact on Transporters	
Standards of service	The <u>modification</u> would allow NTS to provide timely notice of indicative and actual NTS Exit (Flat) Capacity Prices

Impact on Code Administration	
Area of Code Administration	Potential impact
Modification Rules	• None
UNC Committees	• None
General administration	• None

Impact on Code	
Code section	Potential impact
UNC TPD Section Y	For NTS Exit (Flat) Capacity charge setting from 1 st October 2012, the definition of nodal demand flow data, used within the NTS charging Transportation Model, would be redefined.
UNC TPD Section O, 4.1.2b(ii)	In respect of the requirement to produce estimates of 1-in-20 peak day demand data on an individual exit point basis, the definition would be redefined to include years "0 to 4".

Impact on UNC Related Documents and Oth	er Referenced Documents
Related Document	Potential impact
Network Entry Agreement (TPD I1.3)	None
Network Exit Agreement (Including Connected System Exit Points) (TPD J1.5.4)	None
Storage Connection Agreement (TPD R1.3.1)	None
UK Link Manual (TPD U1.4)	None
Network Code Operations Reporting Manual (TPD V12)	None
Network Code Validation Rules (TPD V12)	None
ECQ Methodology (TPD V12)	None
Measurement Error Notification Guidelines (TPD V12)	None
Energy Balancing Credit Rules (TPD X2.1)	None
Uniform Network Code Standards of Service (Various)	None

<u>06 October</u> 2011

Version $\underline{3}.0$

Page 14 of <u>26</u>

© 2011 all rights reserved

Impact on Core	Industry	Documents	and othe	r documents
----------------	----------	-----------	----------	-------------

Document Potential impact

Impact on Core Industry Documents and other documents							
Safety Case or other document under Gas Safety (Management) Regulations	None						
Gas Transporter Licence	Implementation of this proposal would facilitate a cost reflective NTS pricing Methodology in regard to NTS Exit (Flat) Capacity Prices.						
Transportation Pricing Methodology Statement	Implementation of this proposal would facilitate a workable NTS pricing Methodology in regard to NTS Exit (Flat) Capacity Prices.						

Other Impacts	
Item impacted	Potential impact
Security of Supply	None
Operation of the Total System	
Industry fragmentation	None
Terminal operators, consumers, connected system operators, suppliers, producers and other non code parties	None

<u>06 October</u> 2011

Version $\underline{3}.0$

Page 15 of <u>26</u>

6 Implementation

Actual Charges

Implementation is required in time for prices to be set and notified by 1^{st} May 2012 such that they become applicable from 1^{st} October 2012.

Indicative Charges

National Grid is required to produce indicative prices ahead of the annual NTS Exit (Flat) Capacity application windows and the next window will be July 2011. Indicative charges form part of the Enduring NTS Exit (Flat) Capacity User commitment process as Users are committed to holding and paying for four years of capacity, or holding and paying for capacity for a sufficient duration such that charges that will be paid are greater than or equal to the User commitment value. The User commitment quantity is defined as an amount equal to four years of charges based on the indicative charges applicable at the time of user commitment.

National Grid has published indicative NTS Exit (Flat) Capacity charges two months ahead of each of the 2009, 2010 & 2011 applications windows, and intends to do so before the 2012 application window. If an approved workable methodology is not available, National Grid will consider either delaying the publication of indicative charges or publishing indicative charges based on the proposed methodology, based on a view that this might be the best estimate of charges given available information. National Grid will seek industry views on the appropriate method of setting indicative charges, should an approved methodology not be available, by 1st May 2012.

Modification 0356

06 October 2011

Version 3.0

Page 16 of <u>26</u>

7 The Case for Change

In addition to that identified the above, the Proposer has identified the following:

Advantages

- The Proposal will lead to a workable methodology for calculating NTS Exit (Flat)
 Capacity prices as supplies are forecast to be sufficient to meet forecast demand
- The modelled demand flows will more accurately reflect peak connected load. The
 undiversified NTS forecast 1-in-20 peak day demand should reflect peak load for
 storage, offtakes to connected systems, DNs and NTS direct connects.
- The Proposal will achieve the relevant charging methodology relevant objectives, primarily generating prices which reflect the costs incurred
- The Proposal is based on information which will be openly published in the Ten Year Statement from 2011.
- Calculation of the charges will be replicable through publication of the Transportation
 Model
- Charges will be less dependent on User capacity booking strategies at Moffat and DNO offtakes.
- Subject to the approval of this Modification Proposal, National Grid would publish an undiversified NTS forecast 1-in-20 peak day demand in the Ten Year Statement from 2011, consistent with this proposal, to match the Charging Methodology.

Disadvantages

• It might be perceived that forecast demand levels will be more variable compared to the obligated (baseline plus incremental) NTS Exit (Flat) Capacity level of NTS Exit (Flat) Capacity; however, it is the changes in this level of capacity that have resulted in this proposal being brought forward.



GCD09

National Grid has consulted on the options for the source of demand flow data within the NTS Charging Transportation Model via Gas Charging Discussion paper GCD09.

Information can be found at;

http://www.nationalgrid.c om/uk/Gas/Charges/cons ultations/CurrentPapers/

Modification 0356

06 October 2011

Version 3.0

Page 17 of <u>26</u>

8 Legal Text

Legal Text 0356

Amend paragraph 4.1.2(b)(ii) of TPD Section O to read:

(ii) for each of years 0 to 4, of 1-in-20 peak day demand in accordance with paragraph 4.1.3;

Amend paragraph 2.5.1 of Appendix C to TPD Section Y Part A to read:

2.5.1 The Transport Model

Model Input Data

- (a) The transport model Transport Model calculates the marginal costs of investment in the transmission system that would be required in the National Transmission System as a consequence of an increase in demand for gas or supply of gas at each connection point. System Point or node on the transmission system, National Transmission System. Such calculation is based on upon analysis of peak conditions on the transmission system. The measure of National Transmission System and the costs of investment costs is which are expressed in terms of £/GWhkm, a concept used to calculate marginal costs, hence. Where there is an increase in demand for gas or supply of gas at a System Point the marginal changes in flow distances based on increases at entry and exit points are (measured in GWhkm) for a small energy injection to the system (measured in GWh) shall be estimated initially in terms of by reference to the increases or decreases in units of kilometres of the transmission system for a small energy injection to the system.
- (b) The transport model Transport Model requires a set of inputs representative
 ofwhich are consistent with the cost of providing capacity costs incurred by
 National Grid NTS in making NTS Exit (Flat) Capacity available on the transmission
 systemNational Transmission System:
 - (i) Nodal supply and demand data (GWh)

<u>Distribution Network (DN) and Direct Connection (DC) baseline plus obligated</u> <u>incremental exit capacity levels by offtake other than bi-directional sites</u> <u>where the demand will be zero</u>

- (A) Demand data shall be derived in relation to each NTS Exit Point as the lesser of:
 - (1) the National Grid NTS forecast undiversified 1-in-20 peak day demand at the relevant NTS Exit Point, provided that:

(aa) for any NTS Connected Offtake System which is a
Storage Facility or a pipeline interconnector and
which has physical entry capability, demand at

Modification 0356

06 October 2011

Version 3.0

Page 18 of 26

the relevant NTS Connected System Exit Point shall be deemed to be zero;

(bb) for NTS/LDZ Offtakes, the National Grid NTS
forecast undiversified 1-in-20 peak day demand in
the relevant LDZ shall be prorated between the
relevant NTS/LDZ Offtakes on the basis of the
amount of NTS Exit (Flat) Capacity registered at
each of the relevant NTS/LDZ Offtakes;

For the purposes of this paragraph, "National Grid NTS forecast undiversified 1-in-20 peak day demand" means the 1-in-20 peak day demand for the National Transmission System that is derived from the summation of the forecast peak demands and load duration curves for each NTS Supply Point, NTS CSEP and NTS/LDZ Offtake; and

(2) the aggregate of the Baseline NTS Exit (Flat) Capacity and incremental NTS Exit (Flat) Capacity in respect of the relevant NTS Exit Point,

provided that paragraph (2) above shall be ignored for the purposes of setting or determining any indicative NTS Exit (Flat) Capacity Charges;

- (2) Aggregate System Entry Point (ASEP) supplies
- (ii) Transmission pipelines between each node (measured in km) and calculated by reference to:
 - (1) Existing pipelines
 - (2) New pipelines expected to be operational aton or before the beginningstart of the gas yearGas Year under analysis
- (iii) Identification of a reference node

Model Inputs

The nodal supply data for the Transport Model willshall be derived from the supply/demand data set out in the most recent Ten Year Statement for each yearGas Year for which prices are being setdetermined. The aggregate storage and Interconnector supply flows willshall be adjusted such to ensure that a supply and demand balance is achieved. This initial the values for supply and demand match is achieved are equal. This adjustment shall be carried out by reducing supplies in a merit the following order to match the point at which supplies equal the forecast demand. Supplies are reduced, until a match is achieved, using the following sequence;:

(i) short range storage facilities (LNG), Storage Facilities;

(ii) mid range storage facilities, Storage Facilities;

Modification 0356

<u>06 October</u> 2011

Version <u>3</u>.0

Page 19 of <u>26</u>

- (iii) LNG Importation Facilities—;
- (iv) long range storage facilities, Interconnectors, and Beach Terminals.

 Storage Facilities;
- (v) pipeline interconnectors; and
- (vi) beach terminals.

The supply figures for Individual System Entry Points at Storage Facilities and Interconnector entry points therefore/or pipeline interconnectors may be set at a level that is less than or equal to the expected entry point capability.

Nodal demand data for the transport model will be the baseline plus obligated incremental exit flat capacity for DN offtakes and direct connections other than for bi-directional sites where the demand will be zero.

- (d) Nodal demand data for the Transport Model shall be derived from a range of different data sources as more particularly described in paragraph 2.5.1(b)(i).
- (e) National Transmission System network data for the charging year will be based on data taken from National Grid's Grid NTS's most recent Ten Year Statement.

Modification 0356

06 October 2011

Version <u>3</u>.0

Page 20 of <u>26</u>

9 Recommendation

The Proposer invites the Workgroup to:

• Recommend that Modification 0356 is sufficiently developed to proceed to consultation.

Suggested Timeline	
November/December 2011	UNC Consultation initiated
December 2011/January 2012	UNC Consultation ends
December 2011/January 2012	UNC Panel recommendation
Winter 2011/2012	Possible Ofgem Impact Assessment
1 st May 2012	Indicative NTS Exit (Flat) Capacity charges set based on the NTS Charging Methodology.



NTS Charging Methodology Forum

The issues associated with this proposal have been discussed at the NTS Charging Methodology Forum. Information regarding the Charging Methodology Forum can be found at;

http://www.nationalgrid.c om/uk/Gas/Charges/TCMF

Modification 0356

<u>06 October</u> 2011

Version 3.0

Page 21 of 26

10 Further Information

The following tables shows an estimate of the actual and indicative NTS Exit (Flat)

Capacity Prices which would be generated by 1st May 2012 based on this modification proposal, compared with the indicative prices calculated in accordance with the prevailing Charging Methodology;

	TS Exit (Flat) Capacity Prices o/kWh/day)			0/42	004	2/4/4	004	4/4 F
		NO	Prevailing Indicative May 2010)	þ	Prevailing (May 2010)	0356 Proposed Proposed	Prevailing (May 2011) 00	þ
		DC/DN	ndic May	0356 Propos	May	Prop.	May	0356 Propos
E	xit Point		H - -	_		_	HIE	_
A	M_PAPER	DC	0.0153	0.0183	0.0163	0.0192	0.0164	0.0216
<u>A</u>	VONMOUTH_LNG	DC	0.0090	0.0171	0.0140	0.0169	0.0140	0.0161
B	acton Interconnector	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
B	ACTON_BAIRD	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
B	AGLAN_BAY_PG	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
B	ARKING_PG	DC	0.0101	0.0124	0.0109	0.0130	0.0107	0.0127
В	ARROW_BAINS	DC	0.0059	0.0089	0.0064	0.0093	0.0061	0.0113
В	ARROW_BS	DC	0.0059	0.0089	0.0064	0.0093	0.0061	0.0113
В	ARROW_GATEWAY	DC	0.0059	0.0089	0.0064	0.0093	0.0061	0.0113
В	ARTON_STACEY_(MRS)	DC	0.0205	0.0227	0.0217	0.0238	0.0219	0.0240
В	ILLINGHAM_ICI	DC	0.0032	0.0009	0.0058	0.0009	0.0054	0.0001
В	P_GRANGEMOUTH	DC	0.0082	0.0001	0.0110	0.0001	0.0109	0.0001
В	P_SALTEND_HP	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
В	RIDGEWATER_PAPER	DC	0.0201	0.0251	0.0212	0.0263	0.0181	0.0267
В	RIGG_PG	DC	0.0029	0.0059	0.0033	0.0061	0.0027	0.0056
В	RIMSDOWN_PG	DC	0.0106	0.0129	0.0114	0.0135	0.0112	0.0133
В	RINE_FIELD_PS	DC	0.0026	0.0002	0.0051	0.0002	0.0047	0.0001
В	RUNNER_MOND	DC	0.0171	0.0215	0.0180	0.0226	0.0147	0.0246
C	ARRINGTON_PS	DC	0.0176	0.0210	0.0191	0.0220	0.0159	0.0246
C	AYTHORPE_(MRS)	DC	0.0001	0.0015	0.0001	0.0016	0.0001	0.0008
C	ENTRAX	DC	0.0216	0.0262	0.0236	0.0264	0.0240	0.0261
C	HESHIRE_(MRS)	DC	0.0164	0.0215	0.0173	0.0225	0.0140	0.0239
C	OCKENZIE	DC	<u>#N/A</u>	<u>#N/A</u>	<u>#N/A</u>	<u>#N/A</u>	0.0081	0.0001
C	ONNAHS_QUAY_PS	DC	0.0205	0.0255	0.0216	0.0267	0.0185	0.0271
C	ORBY_PS	DC	0.0079	0.0109	0.0085	0.0114	0.0083	0.0111
C	ORYTON_PG	DC	0.0104	0.0121	0.0111	0.0127	0.0110	0.0124
	ORYTON_PG_2	DC	0.0104	0.0121	0.0111	0.0127	0.0110	0.0124
	OTTAM_PG	DC	0.0019	0.0049	0.0023	0.0051	0.0017	0.0045
D	AMHEAD_CREEK	DC	0.0097	0.0102	0.0104	0.0106	0.0102	0.0103
DI	EESIDE_PS	DC	0.0202	0.0255	0.0212	0.0268	0.0185	0.0271
DI	IDCOT PS	DC	0.0168	0.0190	0.0178	0.0199	0.0178	0.0199
DI	RAKELOW PS	DC	0.0129	0.0159	0.0138	0.0167	0.0138	0.0166
	YNEVOR_ARMS_LNG	DC	0.0001	0.0015	0.0001	0.0005	0.0001	0.0001
	ASINGTON&ROUGH_TERMINAL	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	NRON_(BILLINGHAM)	DC	0.0032	0.0009	0.0058	0.0009	0.0054	0.0001
	ARTON_(MRS)	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	LENMAVIS_LNG	DC	0.0107	0.0001	0.0137	0.0001	0.0137	0.0001
	OOLE GLASS	DC	0.0006	0.0036	0.0009	0.0038	0.0003	0.0031
	RAIN GAS	DC	0.0097	0.0102	0.0104	0.0106	0.0102	0.0103
	REAT_YARMOUTH	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	ATFIELD MOOR (MRS)	DC	0.0011	0.0043	0.0014	0.0046	0.0008	0.0040
	ATFIELD POWER STATION	DC	#N/A	#N/A	#N/A	#N/A	0.0001	0.0028
	AYS_CHEMICALS	DC	0.0170	0.0221	0.0180	0.0232	0.0147	0.0234



Indicative Charges

Indicative charges represent National Grid's best estimate of potential future charges based on information available at the time that charges are set; however, these charges are subject to change as updated data becomes available.

Modification 0356

06 October 2011

Version 3.0

Page 22 of 26

(p/kWh/day)		201	2/13	201	3/14	2014/15	
	DC/DN	Prevailing Indicative (May 2010)	0356 Proposed	Prevailing (May 2010)	0356 Proposed	Prevailing (May 2011)	0356 Proposed
Exit Point	DO	0.0470	0.0000	0.0400	0.0000	0.0440	0.000
HOLEHOUSE_FARM_(MRS)	DC	0.0172	0.0222	0.0182	0.0233	0.0149	0.023
HORNSEA_(MRS)	DC	0.0001	0.0003	0.0001	0.0003	0.0001	0.000
ICI_RUNCORN	DC	0.0202	0.0252	0.0213	0.0265	0.0182	0.026
IMMINGHAM_PG	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
KEADBY_BS KEADBY PS	DC DC	0.0018	0.0048	0.0021	0.0050	0.0015	0.004
KEMIRAINCE CHP	DC	0.0018	0.0048	0.0021	0.0050 0.0261	0.0015 0.0178	0.004
KINGS LYNN PS	DC	0.0029	0.0052	0.0209	0.0201	0.0028	0.020
LANGAGE_PG	DC	0.0029	0.0032	0.0033	0.0034	0.0028	0.004
LITTLE BARFORD PS	DC	0.0094	0.0291	0.0207	0.0293	0.0099	0.023
LONGANNET	DC	0.0034	0.0001	0.0101	0.0001	0.0099	0.000
MARCHWOOD	DC	0.0075	0.0001	0.0103	0.0001	0.0101	0.000
MEDWAY PS	DC	0.0098	0.0243	0.0230	0.0230	0.0239	0.020
MILFORD HAVEN REFINERY	DC	0.00001	0.0001	0.0001	0.0001	0.0001	0.000
MOFFAT	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
PARTINGTON LNG	DC	0.0134	0.0021	0.0100	0.0022	0.0158	0.003
PEMBROKE_PG	DC	0.0001	0.0209	0.0001	0.0219	0.0136	0.000
PETERBOROUGH_PS	DC	0.0060	0.0082	0.0065	0.0001	0.0061	0.008
PETERHEAD PG	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
PHILLIPS SEAL SANDS	DC	0.0026	0.0001	0.0051	0.0001	0.0047	0.000
ROCKSAVAGE_PG	DC	0.0202	0.0252	0.0031	0.0265	0.0182	0.026
ROOSECOTE PS	DC	0.0059	0.0089	0.0064	0.0093	0.0061	0.011
RYE HOUSE PS	DC	0.0111	0.0133	0.0118	0.0140	0.0117	0.013
SALTEND	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
SAPPIPAPERMILLCHP	DC	0.0142	0.0001	0.0001	0.0180	0.0001	0.017
SEABANK POWER phase II	DC	0.0091	0.0171	0.0141	0.0169	0.0140	0.017
SEABANK POWER phase1	DC	0.0108	0.0154	0.0122	0.0150	0.0121	0.014
SELLAFIELD PS	DC	0.0099	0.0129	0.0106	0.0135	0.0105	0.015
SEVERNSIDE ICI	DC	0.0091	0.0170	0.0140	0.0168	0.0139	0.016
SHOTTON PAPER	DC	0.0204	0.0254	0.0215	0.0266	0.0184	0.027
SPALDING PG	DC	0.0033	0.0063	0.0037	0.0066	0.0032	0.006
SPALDING PG 2	DC	0.0033	0.0063	0.0037	0.0066	0.0032	0.006
ST FERGUS BS	DC	0.0001	0.0003	0.0001	0.0000	0.0001	0.000
STALLINGBOROUGH	DC	0.0001	0.0007	0.0001	0.0007	0.0001	0.000
STAYTHORPE	DC	0.0049	0.0007	0.0053	0.0007	0.0049	0.007
STUBLACH	DC	0.0164	0.0215	0.0173	0.0225	0.0140	0.023
SUTTON BRIDGE PS	DC	0.0043	0.0066	0.0047	0.0069	0.0043	0.006
TEESSIDE BASF	DC	0.0026	0.0002	0.0051	0.0002	0.0047	0.000
TEESSIDE HYDROGEN	DC	0.0026	0.0002	0.0052	0.0002	0.0047	0.000
THEDDLETHORPE&SALTF TERMINAL	DC	#N/A	#N/A	#N/A	#N/A	0.0001	0.000
THORNTON CURTIS (KILLINGHOLME)	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
TILBURY PS	DC	#N/A	#N/A	#N/A	#N/A	0.0114	0.012
WEST BURTON PS	DC	0.0019	0.0048	0.0022	0.0052	0.0016	0.004
WILLINGTON PS	DC	#N/A	#N/A	#N/A	#N/A	0.0153	0.018
WYRE PS	DC	0.0131	0.0160	0.0139	0.0168	0.0139	0.019
ZENECA	DC	0.0032	0.0009	0.0058	0.0009	0.0054	0.000
BURNERVIE	DN	#N/A	0.0001	#N/A	0.0001	0.0001	0.000
BACTON OT	EA	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
BRISLEY	EA	0.0003	0.0026	0.0005	0.0027	0.0001	0.002
EYE	EA	0.0056	0.0079	0.0061	0.0082	0.0057	0.002
GREAT WILBRAHAM	EA	0.0056	0.0079	0.0061	0.0082	0.0057	0.007
MATCHING GREEN	EA	0.0030	0.0079	0.0001	0.0002	0.0037	0.007

<u>06 October</u> 2011

Version 3.0

Page 23 of <u>26</u>

(p/kWh/day)		201	2/13	201	3/14	201	4/15
	DC/DN	Prevailing Indicative (May 2010)	0356 Proposed	Prevailing (May 2010)	0356 Proposed	Prevailing (May 2011)	0356 Proposed
Exit Point							
ROUDHAM_HEATH	EA	0.0019	0.0042	0.0022	0.0044	0.0017	0.003
ROYSTON	EA	0.0075	0.0097	0.0080	0.0102	0.0077	0.009
WEST_WINCH	EA	0.0027	0.0049	0.0030	0.0051	0.0025	0.004
WHITWELL	EA	0.0094	0.0116	0.0101	0.0122	0.0098	0.01
YELVERTON	EA	0.0001	0.0021	0.0001	0.0021	0.0001	0.00
ALREWAS_EM	EM	0.0134	0.0164	0.0143	0.0172	0.0143	0.01
BLABY	EM	0.0099	0.0129	0.0106	0.0135	0.0104	0.013
BLYBOROUGH	EM	0.0019	0.0049	0.0023	0.0051	0.0017	0.004
CALDECOTT	EM	0.0076	0.0105	0.0081	0.0110	0.0079	0.010
DROINTON_OT	EM	0.0145	0.0175	<u>0.0155</u>	0.0183	0.0155	0.018
GOSBERTON	EM	0.0030	0.0060	0.0034	0.0062	0.0029	0.00
KIRKSTEAD	EM	0.0010	0.0039	0.0012	0.0041	0.0006	0.003
MARKET_HARBOROUGH	EM	0.0087	0.0117	0.0093	0.0122	0.0091	0.01
SILK_WILLOUGHBY	EM	0.0022	0.0052	0.0025	0.0054	0.0020	0.004
SUTTON_BRIDGE	EM	0.0044	0.0067	0.0049	0.0070	0.0044	0.000
THORNTON_CURTIS_LDZ	EM	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
TUR_LANGTON	EM	0.0089	0.0118	0.0095	0.0124	0.0093	0.012
WALESBY	EM	0.0001	0.0015	0.0001	0.0015	0.0001	0.000
ASSELBY	NE	0.0001	0.0031	0.0003	0.0032	0.0001	0.002
BALDERSBY	NE	0.0052	0.0045	0.0057	0.0047	0.0053	0.004
BURLEY_BANK	NE	0.0045	0.0066	0.0049	0.0069	0.0045	0.00
GANSTEAD	NE	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
PANNAL	NE	0.0040	0.0070	0.0044	0.0073	0.0040	0.006
<u>PAULL</u>	NE	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
PICKERING	NE	0.0001	0.0042	0.0015	0.0044	0.0009	0.003
RAWCLIFFE	NE	0.0003	0.0033	0.0005	0.0034	0.0001	0.002
TOWTON	NE	0.0023	0.0053	0.0026	0.0055	0.0021	0.004
BISHOP_AUCKLAND	NO	0.0050	0.0026	0.0076	0.0027	0.0073	0.002
BISHOP_AUCKLAND_TEST_FACILITY	NO	0.0050	0.0026	0.0076	0.0027	0.0073	0.002
COLDSTREAM	NO	0.0118	0.0001	0.0149	0.0001	0.0149	0.000
CORBRIDGE	NO	0.0094	0.0032	0.0124	0.0033	0.0123	0.00
COWPEN_BEWLEY	NO	0.0030	0.0007	0.0056	0.0006	0.0052	0.000
ELTON	NO	0.0034	0.0018	0.0061	0.0018	0.0057	0.00
GUYZANCE	NO	0.0120	0.0007	0.0150	0.0007	0.0150	0.002
HUMBLETON	NO	0.0113	0.0001	0.0143	0.0001	0.0143	0.000
KELD	NO	0.0120	0.0098	0.0129	0.0103	0.0128	0.012
LITTLE_BURDON	NO	0.0039	0.0022	0.0065	0.0023	0.0061	0.00
MELKINTHORPE	NO	0.0127	0.0091	0.0136	0.0095	0.0135	0.01
SALTWICK_PC	NO	0.0152	0.0019	0.0184	0.0020	0.0186	0.003
SALTWICK_VC	NO	0.0152	0.0019	0.0184	0.0020	0.0186	0.003
THRINTOFT	NO	0.0055	0.0039	0.0077	0.0040	0.0074	0.003
TOW_LAW	NO	0.0069	0.0046	0.0097	0.0048	0.0095	0.004
WETHERAL	NO	0.0135	0.0066	0.0162	0.0069	0.0163	0.008
HORNDON	NT	0.0101	0.0124	0.0109	0.0130	0.0107	0.012
LUXBOROUGH_LANE	<u>NT</u>	0.0104	0.0126	0.0111	0.0132	0.0109	0.013
PETERS_GREEN	<u>NT</u>	0.0098	0.0121	0.0105	0.0126	0.0103	0.012
PETERS_GREEN_SOUTH_MIMMS	NT	0.0098	0.0121	0.0105	0.0126	0.0103	0.012
WINKFIELD_NT	<u>NT</u>	0.0185	0.0207	0.0196	0.0217	0.0197	0.02
AUDLEY_NW	NW	0.0180	0.0210	0.0190	0.0220	0.0158	0.022
BLACKROD	NW	0.0152	0.0182	0.0162	0.0190	0.0162	0.019
ECCLESTON	NW	0.0200	0.0242	0.0210	0.0254	0.0179	0.025

<u>06 October</u> 2011

Version 3.0

Page 24 of <u>26</u>

(p/kWh/day)		201	2/13	201	3/14	2014/15	
	DC/DN	Prevailing Indicative (May 2010)	0356 Proposed	Prevailing (May 2010)	0356 Proposed	Prevailing (May 2011)	0356 Proposed
Exit Point	A11A7	0.0004	0.0404	0.0404	0.0400	0.0000	0.045
LUPTON	NW	0.0094	0.0124	0.0101	0.0130	0.0099	0.015
MALPAS	NW	0.0199	0.0229	0.0210	0.0240	0.0178	0.024
MICKLE_TRAFFORD	NW NW	0.0193	0.0243	0.0203	0.0255	0.0172	0.025
PARTINGTON CAMP ESPURY	NW NW	0.0176	0.0210	0.0191	0.0220	0.0159	0.024
SAMLESBURY WARBURTON	NW NW	0.0138 0.0178	0.0167	0.0147	0.0175 0.0217	0.0147	0.017
WESTON POINT	NW	0.0178	0.0207 0.0252	0.0189	0.0217	0.0156 0.0182	0.024
ABERDEEN	SC	0.0202	0.0001	0.0213	0.0203	0.0001	0.000
ARMADALE	SC	0.0001	0.0001	0.0001		0.0001	0.000
BALGRAY	SC	0.0039	0.0001	0.0128	<u>0.0001</u> <u>0.0001</u>	0.0037	0.000
BATHGATE	SC	0.0010	0.0001	0.0042	0.0001	0.0037	0.000
BROXBURN	SC	0.0110	0.0001	0.0124	0.0001	0.0123	0.000
CARESTON	SC	0.0001	0.0001	0.0020	0.0001	0.0015	0.000
DRUM	SC	0.0067	0.0001	0.0020	0.0001	0.0013	0.000
GLENMAVIS	SC	0.0107	0.0001	0.0137	0.0001	0.0137	0.000
HUME	SC	0.0128	0.0001	0.0159	0.0001	0.0159	0.001
KINKNOCKIE	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
LANGHOLM	SC	0.0134	0.0042	0.0165	0.0043	0.0166	0.006
LAUDERHILL	SC	0.0144	0.0007	0.0176	0.0007	0.0177	0.002
LOCKERBIE	SC	0.0144	0.0033	0.0176	0.0034	0.0177	0.002
MOSSIDE	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
NETHER HOWCLEUGH	SC	0.0147	0.0014	0.0178	0.0014	0.0180	0.003
PITCAIRNGREEN	SC	0.0039	0.0001	0.0066	0.00014	0.0062	0.000
SOUTRA	SC	0.0145	0.0001	0.0177	0.0001	0.0178	0.003
ST FERGUS OT	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.000
STRANRAER	SC	0.0154	0.0001	0.0186	0.0022	0.0188	0.003
FARNINGHAM	SE	0.0120	0.0125	0.0128	0.0131	0.0127	0.012
FARNINGHAM B	SE	0.0120	0.0125	0.0128	0.0131	0.0127	0.012
SHORNE	SE	0.0110	0.0115	0.0118	0.0121	0.0116	0.011
TATSFIELD	SE	0.0137	0.0142	0.0146	0.0149	0.0146	0.014
WINKFIELD SE	SE	0.0185	0.0207	0.0196	0.0217	0.0197	0.021
BRAISHFIELD A	SO	0.0220	0.0242	0.0233	0.0254	0.0236	0.025
BRAISHFIELD B	SO	0.0220	0.0242	0.0233	0.0254	0.0236	0.025
HARDWICK	SO	0.0133	0.0155	0.0141	0.0162	0.0140	0.016
IPSDEN	SO	0.0165	0.0187	0.0175	0.0196	0.0175	0.019
IPSDEN 2	SO	0.0165	0.0187	0.0175	0.0196	0.0175	0.019
MAPPOWDER	SO	0.0170	0.0216	0.0188	0.0216	0.0189	0.021
WINKFIELD SO	SO	0.0185	0.0207	0.0196	0.0217	0.0197	0.021
AYLESBEARE	SW	0.0192	0.0238	0.0210	0.0239	0.0213	0.023
CHOAKFORD	SW	0.0246	0.0291	0.0267	0.0295	0.0272	0.029
CIRENCESTER	SW	0.0086	0.0132	0.0099	0.0127	0.0097	0.011
COFFINSWELL	SW	0.0218	0.0264	0.0238	0.0266	0.0242	0.026
EASTON_GREY	SW	0.0091	0.0137	0.0105	0.0133	0.0102	0.012
EVESHAM	SW	0.0056	0.0102	0.0068	0.0096	0.0064	0.008
FIDDINGTON	SW	0.0044	0.0089	0.0054	0.0083	0.0050	0.007
ILCHESTER	SW	0.0149	0.0195	0.0166	0.0194	0.0166	0.018
KENN_SOUTH	SW	0.0203	0.0249	0.0222	0.0250	0.0225	0.024
LITTLETON DREW	SW	0.0099	0.0145	0.0113	0.0141	0.0111	0.013
PUCKLECHURCH	SW	0.0108	0.0154	0.0122	0.0150	0.0120	0.014
ROSS_SW	SW	0.0016	0.0062	0.0025	0.0054	0.0020	0.004
SEABANK_LDZ	SW	0.0092	0.0173	0.0142	0.0170	0.0141	0.016
ALREWAS WM	WM	0.0134	0.0164	0.0143	0.0172	0.0143	0.017

<u>06 October</u> 2011

2011

Version 3.0

Page 25 of <u>26</u>

NTS Exit (Flat) Capacity Prices (p/kWh/day)		2012/13		2013/14		2014/15	
	DC/DN	Prevailing Indicative (May 2010)	0356 Proposed	Prevailing (May 2010)	0356 Proposed	Prevailing (May 2011)	0356 Proposed
Exit Point							
ASPLEY	WM	0.0164	0.0194	0.0174	0.0203	0.0176	0.0204
AUDLEY_WM	WM	0.0180	0.0210	0.0190	0.0220	0.0158	0.0222
AUSTREY	<u>wm</u>	0.0122	0.0157	0.0135	0.0165	0.0136	0.0157
LEAMINGTON_SPA	<u>wm</u>	0.0082	0.0128	0.0095	0.0123	0.0092	0.0114
LOWER_QUINTON	<u>wm</u>	0.0067	0.0113	0.0079	0.0108	0.0076	0.0098
MILWICH	<u>wm</u>	0.0152	0.0181	0.0161	0.0190	0.0162	0.0190
ROSS_WM	<u>wm</u>	0.0016	0.0062	0.0025	0.0054	0.0020	0.0041
RUGBY	<u>wm</u>	0.0093	0.0138	0.0106	0.0134	0.0104	0.0126
SHUSTOKE	WM	0.0134	0.0169	0.0148	0.0177	0.0149	0.0170
STRATFORD_UPON_AVON	WM	0.0068	0.0114	0.0081	0.0109	0.0077	0.0099
MAELOR	WN	0.0207	0.0237	0.0218	0.0248	0.0187	0.0251
DOWLAIS	ws	0.0001	0.0021	0.0001	0.0011	0.0001	0.0001
DYFFRYN_CLYDACH	ws	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
GILWERN	ws	0.0001	0.0032	0.0001	0.0023	0.0001	0.0009

<u>06 October</u> 2011

Version 3.0

Page 26 of <u>26</u>