

Stage 01: Proposal

0356A:

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 booked capacity for all Exit Points, other than for storage and interconnectors which would be modelled at zero.



The Proposer recommends
This Proposal is referred to Workgroup 0356 for assessment



High Impact:



Medium Impact:
All participants holding NTS Exit (Flat) Capacity affected



Low Impact:
UNC Panel, the Authority, Workgroups and Joint Office

What stage is this document in the process?

01

Proposal

02

Workgroup Report

03

Draft Modification Report

04

Final Modification Report

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About this document:

This document is a proposal, which was presented by the Proposer to the Panel on 19th May 2011. The Panel determined the modification should be referred to Workgroup 0356 for assessment.



3 Any questions?

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1 Summary

Is this a Self-Governance Modification

The Modification Panel determined that this modification should not follow Self Governance procedures.

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 recent 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.

There is also an issue in that the current NTS Charging Methodology within the code is written as a methodology and does not use legal text or jargon. This is inconsistent with the majority of the UNC and inappropriate for a multi-party legal contract.

Solution

It is proposed that;

- For bi-directional sites with physical entry capability (storage, IUK, and BBL) the modelled demand is zero.
- For all other NTS Exit Points (including DN Offtakes, bi-directional sites with no physical entry capacity and other directly connected offtakes) the modelled demand will be the booked NTS Exit (Flat) Capacity.
 - For setting indicative prices for Gas Years Y+N the booked capacity will be the enduring booked capacity plus any annual capacity booked for Y+N.
 - For setting firm prices for Gas Year Y+1 the booked capacity will be the enduring booked capacity plus annual capacity booked for Gas Year Y+1.

This would ensure that a supply and demand match could be achieved for charge setting purposes and maintain the incentive on Shippers to manage their NTS Exit (Flat) Capacity bookings.

For clarity for exit points with no booked capacity, including new exit points who had not had the opportunity to book capacity the modelled demand will be zero. Daily exit capacity bookings will not be taken into account.

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

UNC Section Y – Charging Methodologies, Part A, Appendix C, Chapter 2, 2.5.1 The



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.

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Transport Model – “Model Input Data” & “Model Inputs”.

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

Impacts & Costs

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

Implementation

Implementation is required primarily such that prices can be set prior to 1st May 2012 such that they become applicable from 1st October 2012. It is therefore proposed that:

- If Ofgem reaches a decision prior to 30th April 2012 then this proposal is implemented on 1st May 2012.
- If Ofgem reach a decision between 1st May 2012 and 31st July 2012 then it is proposed that this proposal should be implemented on 1st August 2012.
- If Ofgem reaches a decision after 1st August 2012 then it is proposed that this proposal is implemented as soon as reasonably practical after this event.

The Case for Change

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

Using booked capacity would be consistent with the principles behind UNC Modification Proposal 0195AV and would maintain the incentive on Users to manage their NTS Exit Capacity bookings. As a consequence of using this data, charges should better reflect the cost incurred in making NTS Exit (Flat) Capacity available.

This proposal would also maintain the concept of “revenue foregone” for sites relying on interruptible and/or off-peak capacity as this change only impacts on how the Long Run Marginal Costs (LRMC) are calculated. These will then be scaled up so that if Shippers book baseline/obligated levels at all exit points then National Grid will recover its target revenue. Sites relying on interruptible and/or off peak will not book at this level all year and so the “missing” revenues associated with these exit points will be recovered through the TO Commodity charge – as currently will occur.

Recommendations

The Proposer invites the Workgroup to:

- Recommend that Modification Proposal 0356A proceeds to consultation.

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.

Demand 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.

Price Variability

The second issue identified by National Grid 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. However, we believe that this in part is being caused by a decline in flows through St. Fergus and so this swing from being a "supply" area to a "demand" area by itself is not a valid reason for change.

We also note that GCM16 was raised, developed and implemented to address the issue of volatile exit capacity charges that were swinging (in some extreme points) by more than 1000% year on year. To address this issue National Grid proposed moving from supply forecasts to a capacity based approach as this would remove the volatility of exit capacity charges as a result of changes in National Grid's forecast demand. We are concerned that moving towards forecast demand for exit capacity charge derivation (as proposed by National Grid) will result in more volatile charges for all exit points. Basing charges on capacity bookings is expected to be less volatile than demand forecasts as they are unlikely to change significantly once the enduring exit reform has bedded in.

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



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.com/uk/Gas/Charges/consultations/archive_consultation_papers/

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the use of the baseline plus incremental capacity as the demand flow level may now no longer be reflective of the “connected load” as some Users have not managed their exit capacity bookings resulting in a significant increase in the obligated level.

In respect of the DN’s, 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. However, we note that it is likely that some Shippers will release their exit capacity bookings in the July 2011 window, which is their last opportunity prior to the go live of exit reform on 1 October 2012. We therefore believe that using booked capacity will be more reflective of the connected load after this window, whilst maintaining the incentive on Users to manage their exit capacity bookings.

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

However, through discussions Shippers have raised concerns with the differential treatment of offtakes being proposed by National Grid, and questioned whether this was due discrimination. There have also been concerns expressed as to whether National Grid’s proposed methodology would weaken the incentive on Shippers and GDNs to manage their exit capacity bookings, which was a key issue in exit reform and the implementation of UNC Modification Proposal 0195AV.

Consistency with UNC Modification Proposal 0195AV

When implementing UNC Modification Proposal 0195AV – Enduring Exit Reform – the Authority was keen to ensure that an incentive was placed on Users to manage their exit capacity bookings and provide clear signals to National Grid as to what their capacity requirements were¹. It was believed that incentivising Users to manage their exit capacity bookings would facilitate the efficient operation and development of the NTS as Users were best placed to signal their capacity requirements to National Grid who would then invest based on these signals. This is further strengthened by the fact that the GDNs have a Licence Condition to have sufficient capacity to meet peak demand which they discharge through their NTS Exit Capacity bookings. Given that National Grid is fully exposed to any under investment through the exit capacity buy back mechanism we agree with Ofgem that National Grid invests based on these capacity bookings. It is therefore appropriate that Users continue to be incentivised on their exit capacity bookings by ensuring that charges are derived based on these bookings, which will also be consistent with the decision on UNC Modification Proposal 0195AV.

Legal Text Issues

When the NTS charging methodology was incorporated into the UNC as part of the governance review it was transferred into the UNC unchanged. The charging methodology that currently sits within the UNC is currently written as a charging methodology and not as a legal document. This is not consistent with the majority of

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¹ See Authority Decision available at: <http://www.gasgovernance.co.uk/0195>

the UNC document and is not appropriate for a document that forms a multi-party legal contract. It would therefore appear appropriate to correct this anomaly.

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3 Solution

The Proposal

It is proposed that;

- For bi-directional sites with physical entry capability (storage, IUK, and BBL) the modelled demand is zero.
- For all other NTS Exit Points (including DN Offtakes, bi-directional sites with no physical entry capacity and other directly connected offtakes) the modelled demand will be the booked NTS Exit (Flat) Capacity.
 - For setting indicative prices for Gas Years Y+N the booked capacity will be the enduring booked capacity plus any annual capacity booked for Y+N.
 - For setting firm prices for Gas Year Y+1 the booked capacity will be the enduring booked capacity plus any annual capacity booked for Gas Year Y+1.

This would ensure that a supply and demand match could be achieved for charge setting purposes and maintain the incentive on Shippers to manage their NTS Exit (Flat) Capacity bookings.

For clarity for exit points with no booked capacity, including new exit points who had not had the opportunity to book capacity the modelled demand will be zero. Daily exit capacity bookings will not be taken into account.

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

UNC Section Y – Charging Methodologies, Part A, Appendix C, Chapter 2, 2.5.1 The Transport Model – “Model Input Data” & “Model Inputs”.

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

4 Relevant Objectives

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

Proposer's view of the benefits against the Code Relevant Methodology Objectives

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: <ul style="list-style-type: none"> (i) no reserve price is applied, or (ii) that reserve price is set at a level - <ul style="list-style-type: none"> (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



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,

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

The exit capacity bookings made by Users are an important part of providing NTS with its planning and investment signals. As exit capacity bookings drive these signals then we believe that it is cost reflective to base these charges on these signals. It might also be considered that the Authority's Decision on UNC Modification Proposal 0195AV supports this.

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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 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.

Facilitating effective competition between gas shippers and between gas suppliers

Basing the NTS charging methodology on booked capacity should ensure a transparent charging methodology such that Users can replicate the charging setting process and forecast future charge levels. We believe that promoting transparency of the charging methodology is consistent with the facilitation of competition between gas shippers.

Basing charges on booked capacity should also aid stability of charges and so predictability, as it is unlikely that exit capacity bookings will fluctuate significantly once the enduring exit regime has been implemented. We note that this was also an important principle behind the development and implementation of GCM16 which sought to move away from forecast data for certain supply points which could be variable and so create instability and unpredictable exit charges.

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. We believe that avoiding cross subsidies is consistent with the facilitation of competition between gas shippers, as it ensures Users are incentivised to manage their capacity bookings. We also note that incentivising Users to manage their capacity bookings will ensure that risks are targeted at those who are best placed to manage them. The correct allocation of risk is also beneficial to competition.

Licence Compliance

In the Proposer's opinion the Modification Proposal does not conflict with paragraphs 2, 2A and 3 of Standard Special Condition A4 of the Transporter's Licence as the proposal is consistent with setting NTS Exit (Flat) Capacity charges from 1st October 2012 and from the 1st October in each subsequent year.

5 Impacts and Costs

Consideration of Wider Industry Impacts

None identified.

This proposal represents a change to internal NTS manual processes.

Costs

Include here any proposal for the apportionment of implementation costs amongst parties.

Indicative industry costs – User Pays
Classification of the proposal as User Pays or not and justification for classification
No industry implementation costs have been identified
Identification of Users, proposed split of the recovery between Gas Transporters and Users for User Pays costs and justification
Proposed charge(s) for application of Users Pays charges to Shippers
Proposed charge for inclusion in ACS – to be completed upon receipt of cost estimate from Xoserve

Impacts

Impact on Transporters' Systems and Process	
Transporters' System/Process	Potential impact
UK Link	<ul style="list-style-type: none"> None
Operational Processes	<ul style="list-style-type: none"> Internal changes to manual price setting processes
User Pays implications	<ul style="list-style-type: none"> None

Impact on Users	
Area of Users' business	Potential impact
Administrative and operational	<ul style="list-style-type: none"> None
Development, capital and operating costs	<ul style="list-style-type: none"> None

Impact on Users	
Contractual risks	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> None

Impact on Transporters	
Area of Transporters' business	Potential impact
System operation	<ul style="list-style-type: none"> None
Development, capital and operating costs	<ul style="list-style-type: none"> None
Recovery of costs	<ul style="list-style-type: none"> The proposal would allow NTS to recover transportation costs associated with providing NTS Exit (Flat) Capacity
Price regulation	<ul style="list-style-type: none"> The proposal would allow NTS to recover transportation costs associated with providing NTS Exit (Flat) Capacity
Contractual risks	<ul style="list-style-type: none"> None
Legislative, regulatory and contractual obligations and relationships	<ul style="list-style-type: none"> Implementation of this proposal would facilitate a cost reflective NTS pricing Methodology in regard to NTS Exit (Flat) Capacity Prices as required by the NTS Licence.
Standards of service	<ul style="list-style-type: none"> The proposal 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	<ul style="list-style-type: none"> None
UNC Committees	<ul style="list-style-type: none"> None
General administration	<ul style="list-style-type: none"> None

Impact on Code	
Code section	Potential impact



Where can I find details of the UNC Standards of Service?

In the Revised FMR for Transco's Network Code Modification **0565 Transco Proposal for Revision of Network Code Standards of Service** at the following location:
<http://www.gasgovernance.co.uk/sites/default/files/0565.zip>

Impact on Code	
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.
	•

Impact on UNC Related Documents and Other 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

Impact on Core Industry Documents and other documents	
Document	Potential impact
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.

Impact on Core Industry Documents and other documents

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

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6 Implementation

Actual Charges

Implementation is required primarily such that prices can be set prior to 1st May 2012 such that they become applicable from 1st October 2012. It is therefore proposed that:

- If Ofgem reaches a decision prior to 30th April 2012 then this proposal is implemented on 1st May 2012.
- If Ofgem reach a decision between 1st May 2012 and 31st July 2012 then it is proposed that this proposal should be implemented on 1st August 2012.
- If Ofgem reaches a decision after 1st August 2012 then it is proposed that this proposal is implemented as soon as reasonably practical after this event.

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
- This proposal will maintain the incentive on Shippers to manage their NTS Exit (Flat) Capacity bookings which was a key factor in the Authority's decision to implement UNC Modification Proposal 0195AV.
- The Proposal will achieve the relevant charging methodology relevant objectives, primarily generating prices which reflect the costs incurred
- The proposal might be considered to facilitate competition in that
 - It is based on information which will be openly published and therefore has the advantage of transparency.
 - Calculation of the charges will be replicable through publication of the Transportation Model
- The proposal treats all Users in an equitable manner and is therefore non-discriminatory.
- Does not rely on forecast demand levels which will be more variable compared to the obligated (baseline plus incremental) NTS Exit (Flat) Capacity level of NTS Exit (Flat) Capacity, and so should result in more stable charges.

Disadvantages

None identified.



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.com/uk/Gas/Charges/consultations/CurrentPapers/>

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8 Legal Text

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~~National Transmission System that would be required as a consequence of an increase in demand or supply at each connection point or node on the ~~transmission system~~National Transmission System, based on analysis of peak conditions on the ~~transmission system~~National Transmission System. The measure of the investment costs is in terms of £/GWhkm, a concept used to calculate marginal costs, hence marginal changes in flow distances based on increases at ~~entry~~System Entry Points and ~~exit points~~System Exit Points are estimated initially in terms of increases or decreases in units of kilometres of the ~~transmission system~~National Transmission System for a small energy injection to the ~~system~~National Transmission System.
- (b) ~~The transport model~~Transport Model requires a set of inputs ~~representative of the cost of providing capacity on the transmission system~~as follows:
- (i) ~~Nodal forecast~~ supply and demand data (GWh)
- (A) ~~Distribution Network (DN) and Direct Connection (DC) baseline plus obligated incremental exit capacity levels by offtake other than bi-directional sites where the demands, which shall be determined as follows~~:
- (1) ~~for any NTS Connected Offtake System which has physical entry capability, demand will be zero at the relevant NTS Connected System Exit Point shall be deemed to be zero; and~~
- (2) ~~for all other NTS Exit Points, demand at the relevant NTS Exit Point shall be deemed to be equal to the aggregate amount of NTS Exit (Flat) Capacity that Users are registered as holding in relation to the relevant NTS Exit Point, provided that~~:
- (a) ~~for the purposes of setting or determining any indicative NTS Exit (Flat) Capacity Charges for any future Gas Year, the NTS Exit (Flat) Capacity used in paragraph (2) shall be the enduring NTS Exit (Flat) Capacity that Users are registered as holding in relation to the relevant NTS Exit Point plus any annual NTS Exit (Flat) Capacity that Users are~~

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registered as holding for the Gas Year in question;
and

(b) for the purposes of setting firm NTS Exit (Flat) Capacity Charges for Gas Year Y+1 the amount of NTS Exit (Flat) Capacity used in paragraph (2) shall be the enduring NTS Exit (Flat) Capacity plus annual NTS Exit (Flat) Capacity that Users are registered as holding in relation to the relevant NTS Exit Point for Gas Year Y+1;

(B) Aggregate System Entry Point (ASEP) supplies representative of peak conditions on the National Transmission System

(ii) Transmission pipelines between each node (km)

(A) Existing pipelines

(B) New pipelines expected to be operational at the beginning of the gas year under analysis

(iii) Identification of a reference node

Model Inputs

(c) The nodal supply data for the Transport Model will shall be derived from the supply/demand data set out in the most recent Ten Year Statement for each year Gas Year for which prices are being set determined. The aggregate storage and Interconnector supply flows will shall 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 modelled 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;

(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.

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- (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.

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9 Recommendation



The Proposer invites the Workgroup to:

- DETERMINE that this Modification is sufficiently developed to proceed to consultation.

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.com/uk/Gas/Charges/TCMF/>

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10 Further Information

The following tables shows indicative NTS Exit (Flat) Capacity Prices based on this modification proposal compared with the indicative prices calculated in accordance with the prevailing Charging Methodology;



NTS Exit (Flat) Capacity Prices (p/kWh/day)							
Exit Point	DC/DN	2012/13		2013/14		2014/15	
		Prevailing Indicative (May 2010)	New Indicative	Prevailing Indicative (May 2010)	New Indicative	Prevailing Indicative (May 2011)	New Indicative
AM_PAPER	DC	0.0153	0.0206	0.0163	0.0207	0.0164	0.0216
AVONMOUTH_LNG	DC	0.0090	0.0162	0.0140	0.0160	0.0140	0.0167
Bacton Interconnector	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
BACTON_BAIRD	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
BAGLAN_BAY_PG	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
BARKING_PG	DC	0.0101	0.0103	0.0109	0.0098	0.0107	0.0102
BARROW_BAINS	DC	0.0059	0.0112	0.0064	0.0108	0.0061	0.0112
BARROW_BS	DC	0.0059	0.0112	0.0064	0.0108	0.0061	0.0112
BARROW_GATEWAY	DC	0.0059	0.0112	0.0064	0.0108	0.0061	0.0112
BARTON_STACEY_(MRS)	DC	0.0205	0.0228	0.0217	0.0229	0.0219	0.0239
BILLINGHAM_ICI	DC	0.0032	0.0009	0.0058	0.0001	0.0054	0.0001
BP_GRANGEMOUTH	DC	0.0082	0.0001	0.0110	0.0030	0.0109	0.0001
BP_SALTEND_HP	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
BRIDGEWATER_PAPER	DC	0.0201	0.0252	0.0212	0.0255	0.0181	0.0266
BRIGG_PG	DC	0.0029	0.0059	0.0033	0.0053	0.0027	0.0055
BRIMSDOWN_PG	DC	0.0106	0.0130	0.0114	0.0127	0.0112	0.0132
BRINE_FIELD_PS	DC	0.0026	0.0003	0.0051	0.0001	0.0047	0.0001
BRUNNER_MOND	DC	0.0171	0.0233	0.0180	0.0224	0.0147	0.0234
CARRINGTON_PS	DC	0.0176	0.0233	0.0191	0.0235	0.0159	0.0245
CAYTHORPE_(MRS)	DC	0.0001	0.0016	0.0001	0.0001	0.0001	0.0001
CENTRAX	DC	0.0216	0.0253	0.0236	0.0256	0.0240	0.0267
CHESHIRE_(MRS)	DC	0.0164	0.0227	0.0173	0.0217	0.0140	0.0227
COCKENZIE	DC	#N/A	#N/A	#N/A	#N/A	0.0081	0.0001
CONNAHS_QUAY_PS	DC	0.0205	0.0248	0.0216	0.0251	0.0185	0.0262
CORBY_PS	DC	0.0079	0.0110	0.0085	0.0106	0.0083	0.0110
CORYTON_PG	DC	0.0104	0.0100	0.0111	0.0095	0.0110	0.0099
CORYTON_PG_2	DC	0.0104	0.0100	0.0111	0.0095	0.0110	0.0099
COTTAM_PG	DC	0.0019	0.0050	0.0023	0.0043	0.0017	0.0044
DAMHEAD_CREEK	DC	0.0097	0.0080	0.0104	0.0075	0.0102	0.0078
DEESIDE_PS	DC	0.0202	0.0248	0.0212	0.0251	0.0185	0.0262
DIDCOT_PS	DC	0.0168	0.0190	0.0178	0.0190	0.0178	0.0199
DRAKELOW_PS	DC	0.0129	0.0160	0.0138	0.0158	0.0138	0.0165
DYNEVOR_ARMS_LNG	DC	0.0001	0.0006	0.0001	0.0001	0.0001	0.0001
EASINGTON&ROUGH_TERMINAL	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
ENRON_(BILLINGHAM)	DC	0.0032	0.0009	0.0058	0.0001	0.0054	0.0001
GARTON_(MRS)	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
GLENMAVIS_LNG	DC	0.0107	0.0001	0.0137	0.0057	0.0137	0.0013
GOOLE_GLASS	DC	0.0006	0.0037	0.0009	0.0029	0.0003	0.0027
GRAIN_GAS	DC	0.0097	0.0080	0.0104	0.0075	0.0102	0.0078
GREAT_YARMOUTH	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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.

NTS Exit (Flat) Capacity Prices
(p/kWh/day)

Exit Point	DC/DN	2012/13		2013/14		2014/15	
		Prevailing Indicative (May 2010)	New Indicative	Prevailing Indicative (May 2010)	New Indicative	Prevailing Indicative (May 2011)	New Indicative
HATFIELD_MOOR_(MRS)	DC	0.0011	0.0043	0.0014	0.0034	0.0008	0.0035
HATFIELD_POWER_STATION	DC	#N/A	#N/A	#N/A	#N/A	0.0001	0.0027
HAYS_CHEMICALS	DC	0.0170	0.0221	0.0180	0.0221	0.0147	0.0231
HOLEHOUSE_FARM_(MRS)	DC	0.0172	0.0223	0.0182	0.0225	0.0149	0.0234
HORNSEA_(MRS)	DC	0.0001	0.0004	0.0001	0.0001	0.0001	0.0001
ICI_RUNCORN	DC	0.0202	0.0253	0.0213	0.0256	0.0182	0.0267
IMMINGHAM_PG	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
KEADBY_BS	DC	0.0018	0.0048	0.0021	0.0041	0.0015	0.0043
KEADBY_PS	DC	0.0018	0.0048	0.0021	0.0041	0.0015	0.0043
KEMIRAINCE_CHP	DC	0.0199	0.0249	0.0209	0.0252	0.0178	0.0263
KINGS_LYNN_PS	DC	0.0029	0.0053	0.0033	0.0046	0.0028	0.0048
LANGAGE_PG	DC	0.0246	0.0282	0.0267	0.0286	0.0272	0.0299
LITTLE_BARFORD_PS	DC	0.0094	0.0118	0.0101	0.0114	0.0099	0.0119
LONGANNET	DC	0.0075	0.0001	0.0103	0.0023	0.0101	0.0001
MARCHWOOD	DC	0.0216	0.0245	0.0236	0.0248	0.0239	0.0259
MEDWAY_PS	DC	0.0098	0.0081	0.0105	0.0076	0.0103	0.0079
MILFORD_HAVEN_REFINERY	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
MOFFAT	DC	0.0154	0.0044	0.0186	0.0106	0.0188	0.0064
PARTINGTON_LNG	DC	0.0176	0.0232	0.0191	0.0234	0.0158	0.0244
PEMBROKE_PG	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
PETERBOROUGH_PS	DC	0.0060	0.0083	0.0065	0.0078	0.0061	0.0081
PETERHEAD_PG	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
PHILLIPS_SEAL_SANDS	DC	0.0026	0.0003	0.0051	0.0001	0.0047	0.0001
ROCKSAVAGE_PG	DC	0.0202	0.0253	0.0213	0.0256	0.0182	0.0267
ROOSECOTE_PS	DC	0.0059	0.0112	0.0064	0.0108	0.0061	0.0112
RYE_HOUSE_PS	DC	0.0111	0.0134	0.0118	0.0131	0.0117	0.0137
SALTEND	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
SAPPAPAPERMILLCHP	DC	0.0142	0.0172	0.0151	0.0171	0.0151	0.0179
SEABANK_POWER_phase_II	DC	0.0091	0.0162	0.0141	0.0161	0.0140	0.0168
SEABANK_POWER_phase1	DC	0.0108	0.0144	0.0122	0.0142	0.0121	0.0148
SELLAFIELD_PS	DC	0.0099	0.0152	0.0106	0.0150	0.0105	0.0157
SEVERNSIDE_ICI	DC	0.0091	0.0161	0.0140	0.0159	0.0139	0.0166
SHOTTON_PAPER	DC	0.0204	0.0249	0.0215	0.0252	0.0184	0.0263
SPALDING_PG	DC	0.0033	0.0064	0.0037	0.0057	0.0032	0.0060
SPALDING_PG_2	DC	0.0033	0.0064	0.0037	0.0057	0.0032	0.0060
ST_FERGUS_BS	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
STALLINGBOROUGH	DC	0.0001	0.0008	0.0001	0.0001	0.0001	0.0001
STAYTHORPE	DC	0.0049	0.0079	0.0053	0.0073	0.0049	0.0077
STUBLACH	DC	0.0164	0.0227	0.0173	0.0217	0.0140	0.0227
SUTTON_BRIDGE_PS	DC	0.0043	0.0066	0.0047	0.0060	0.0043	0.0063
TEESSIDE_BASF	DC	0.0026	0.0003	0.0051	0.0001	0.0047	0.0001
TEESSIDE_HYDROGEN	DC	0.0026	0.0003	0.0052	0.0001	0.0047	0.0001
THEDDLETHORPE&SALTF_TERMINAL	DC	#N/A	#N/A	#N/A	#N/A	0.0001	0.0001
THORNTON_CURTIS_(KILLINGHOLME)	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
TILBURY_PS	DC	#N/A	#N/A	#N/A	#N/A	0.0114	0.0095
WEST_BURTON_PS	DC	0.0019	0.0049	0.0022	0.0042	0.0016	0.0044

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Exit Point	DC/DN	2012/13		2013/14		2014/15	
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WILLINGTON_PS	DC	#N/A	#N/A	#N/A	#N/A	0.0153	0.0181
WYRE_PS	DC	0.0131	0.0183	0.0139	0.0183	0.0139	0.0191
ZENECA	DC	0.0032	0.0009	0.0058	0.0001	0.0054	0.0001
BURNERVIE	DN	#N/A	0.0001	#N/A	0.0001	0.0001	0.0001
BACTON_OT	EA	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
BRISLEY	EA	0.0003	0.0027	0.0005	0.0018	0.0001	0.0019
EYE	EA	0.0056	0.0080	0.0061	0.0074	0.0057	0.0077
GREAT_WILBRAHAM	EA	0.0056	0.0080	0.0061	0.0074	0.0057	0.0077
MATCHING_GREEN	EA	0.0097	0.0120	0.0104	0.0117	0.0102	0.0122
ROUDHAM_HEATH	EA	0.0019	0.0043	0.0022	0.0035	0.0017	0.0037
ROYSTON	EA	0.0075	0.0098	0.0080	0.0093	0.0077	0.0097
WEST_WINCH	EA	0.0027	0.0050	0.0030	0.0043	0.0025	0.0045
WHITWELL	EA	0.0094	0.0117	0.0101	0.0114	0.0098	0.0118
YELVERTON	EA	0.0001	0.0021	0.0001	0.0013	0.0001	0.0013
ALREWAS_EM	EM	0.0134	0.0165	0.0143	0.0163	0.0143	0.0170
BLABY	EM	0.0099	0.0130	0.0106	0.0127	0.0104	0.0132
BLYBOROUGH	EM	0.0019	0.0050	0.0023	0.0043	0.0017	0.0044
CALDECOTT	EM	0.0076	0.0106	0.0081	0.0102	0.0079	0.0106
DROINTON_OT	EM	0.0145	0.0176	0.0155	0.0175	0.0155	0.0182
GOSBERTON	EM	0.0030	0.0060	0.0034	0.0054	0.0029	0.0056
KIRKSTEAD	EM	0.0010	0.0040	0.0012	0.0032	0.0006	0.0034
MARKET_HARBOROUGH	EM	0.0087	0.0118	0.0093	0.0114	0.0091	0.0119
SILK_WILLOUGHBY	EM	0.0022	0.0052	0.0025	0.0045	0.0020	0.0047
SUTTON_BRIDGE	EM	0.0044	0.0068	0.0049	0.0062	0.0044	0.0064
THORNTON_CURTIS_LDZ	EM	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
TUR_LANGTON	EM	0.0089	0.0119	0.0095	0.0115	0.0093	0.0120
WALESBY	EM	0.0001	0.0016	0.0001	0.0007	0.0001	0.0007
ASSELBY	NE	0.0001	0.0032	0.0003	0.0024	0.0001	0.0025
BALDERSBY	NE	0.0052	0.0046	0.0057	0.0039	0.0053	0.0041
BURLEY_BANK	NE	0.0045	0.0067	0.0049	0.0060	0.0045	0.0063
GANSTEAD	NE	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
PANNAL	NE	0.0040	0.0071	0.0044	0.0065	0.0040	0.0067
PAULL	NE	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
PICKERING	NE	0.0001	0.0043	0.0015	0.0013	0.0009	0.0014
RAWCLIFFE	NE	0.0003	0.0034	0.0005	0.0026	0.0001	0.0027
TOWTON	NE	0.0023	0.0054	0.0026	0.0047	0.0021	0.0049
BISHOP_AUCKLAND	NO	0.0050	0.0027	0.0076	0.0019	0.0073	0.0019
BISHOP_AUCKLAND_TEST_FACILITY	NO	0.0050	0.0027	0.0076	0.0019	0.0073	0.0019
COLDSTREAM	NO	0.0118	0.0009	0.0149	0.0069	0.0149	0.0025
CORBRIDGE	NO	0.0094	0.0055	0.0124	0.0066	0.0123	0.0069
COWPEN_BEWLEY	NO	0.0030	0.0007	0.0056	0.0001	0.0052	0.0001
ELTON	NO	0.0034	0.0019	0.0061	0.0010	0.0057	0.0010
GUYZANCE	NO	0.0120	0.0030	0.0150	0.0091	0.0150	0.0048
HUMBLETON	NO	0.0113	0.0004	0.0143	0.0063	0.0143	0.0020
KELD	NO	0.0120	0.0121	0.0129	0.0142	0.0128	0.0149
LITTLE_BURDON	NO	0.0039	0.0023	0.0065	0.0014	0.0061	0.0015

**NTS Exit (Flat) Capacity Prices
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Exit Point	DC/DN	2012/13		2013/14		2014/15	
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MELKINTHORPE	NO	0.0127	0.0114	0.0136	0.0135	0.0135	0.0141
SALTWICK_PC	NO	0.0152	0.0042	0.0184	0.0104	0.0186	0.0062
SALTWICK_VC	NO	0.0152	0.0042	0.0184	0.0104	0.0186	0.0062
THRINTOFT	NO	0.0055	0.0040	0.0077	0.0032	0.0074	0.0033
TOW_LAW	NO	0.0069	0.0046	0.0097	0.0039	0.0095	0.0041
WETHERAL	NO	0.0135	0.0089	0.0162	0.0108	0.0163	0.0113
HORNDON	NT	0.0101	0.0103	0.0109	0.0098	0.0107	0.0102
LUXBOROUGH_LANE	NT	0.0104	0.0127	0.0111	0.0124	0.0109	0.0129
PETERS_GREEN	NT	0.0098	0.0122	0.0105	0.0118	0.0103	0.0123
PETERS_GREEN_SOUTH_MIMMS	NT	0.0098	0.0122	0.0105	0.0118	0.0103	0.0123
WINKFIELD_NT	NT	0.0185	0.0208	0.0196	0.0208	0.0197	0.0217
AUDLEY_NW	NW	0.0180	0.0211	0.0190	0.0212	0.0158	0.0221
BLACKROD	NW	0.0152	0.0182	0.0162	0.0182	0.0162	0.0190
ECCLESTON	NW	0.0200	0.0243	0.0210	0.0246	0.0179	0.0256
HOLMES_CHAPEL	NW	0.0193	0.0223	0.0203	0.0225	0.0171	0.0234
LUPTON	NW	0.0094	0.0147	0.0101	0.0145	0.0099	0.0151
MALPAS	NW	0.0199	0.0230	0.0210	0.0232	0.0178	0.0242
MICKLE_TRAFFORD	NW	0.0193	0.0244	0.0203	0.0246	0.0172	0.0257
PARTINGTON	NW	0.0176	0.0233	0.0191	0.0235	0.0159	0.0245
SAMLESBURY	NW	0.0138	0.0168	0.0147	0.0167	0.0147	0.0174
WARBURTON	NW	0.0178	0.0230	0.0189	0.0232	0.0156	0.0242
WESTON_POINT	NW	0.0202	0.0253	0.0213	0.0256	0.0182	0.0267
ABERDEEN	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
ARMADALE	SC	0.0099	0.0001	0.0128	0.0048	0.0128	0.0004
BALGRAY	SC	0.0016	0.0001	0.0042	0.0001	0.0037	0.0001
BATHGATE	SC	0.0095	0.0001	0.0124	0.0044	0.0123	0.0001
BROXBURN	SC	0.0110	0.0001	0.0140	0.0060	0.0140	0.0017
CARESTON	SC	0.0001	0.0001	0.0020	0.0001	0.0015	0.0001
DRUM	SC	0.0067	0.0001	0.0095	0.0015	0.0093	0.0001
GLENMAVIS	SC	0.0107	0.0001	0.0137	0.0057	0.0137	0.0013
HUME	SC	0.0128	0.0018	0.0159	0.0079	0.0159	0.0036
KINKNOCKIE	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
LANGHOLM	SC	0.0134	0.0065	0.0165	0.0107	0.0166	0.0087
LAUDERHILL	SC	0.0144	0.0030	0.0176	0.0091	0.0177	0.0049
LOCKERBIE	SC	0.0144	0.0056	0.0176	0.0118	0.0177	0.0077
MOSSIDE	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
NETHER_HOWCLEUGH	SC	0.0147	0.0037	0.0178	0.0098	0.0180	0.0056
PITCAIRNGREEN	SC	0.0039	0.0001	0.0066	0.0001	0.0062	0.0001
SOUTRA	SC	0.0145	0.0036	0.0177	0.0097	0.0178	0.0055
ST_FERGUS_OT	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
STRANRAER	SC	0.0154	0.0044	0.0186	0.0106	0.0188	0.0064
FARNINGHAM	SE	0.0120	0.0104	0.0128	0.0099	0.0127	0.0104
FARNINGHAM_B	SE	0.0120	0.0104	0.0128	0.0099	0.0127	0.0104
SHORNE	SE	0.0110	0.0094	0.0118	0.0089	0.0116	0.0093
TATSFIELD	SE	0.0137	0.0121	0.0146	0.0117	0.0146	0.0122
WINKFIELD_SE	SE	0.0185	0.0208	0.0196	0.0208	0.0197	0.0217

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BRAISHFIELD_A	SO	0.0220	0.0243	0.0233	0.0245	0.0236	0.0256
BRAISHFIELD_B	SO	0.0220	0.0243	0.0233	0.0245	0.0236	0.0256
HARDWICK	SO	0.0133	0.0156	0.0141	0.0154	0.0140	0.0161
IPSDEN	SO	0.0165	0.0187	0.0175	0.0187	0.0175	0.0195
IPSDEN_2	SO	0.0165	0.0187	0.0175	0.0187	0.0175	0.0195
MAPPOWDER	SO	0.0170	0.0207	0.0188	0.0207	0.0189	0.0216
WINKFIELD_SO	SO	0.0185	0.0208	0.0196	0.0208	0.0197	0.0217
AYLESBEARE	SW	0.0192	0.0228	0.0210	0.0230	0.0213	0.0240
CHOAKFORD	SW	0.0246	0.0282	0.0267	0.0286	0.0272	0.0299
CIRENCESTER	SW	0.0086	0.0122	0.0099	0.0119	0.0097	0.0124
COFFINSWELL	SW	0.0218	0.0255	0.0238	0.0258	0.0242	0.0269
EASTON_GREY	SW	0.0091	0.0128	0.0105	0.0125	0.0102	0.0130
EVESHAM	SW	0.0056	0.0093	0.0068	0.0088	0.0064	0.0091
FIDDINGTON	SW	0.0044	0.0080	0.0054	0.0074	0.0050	0.0077
ILCHESTER	SW	0.0149	0.0186	0.0166	0.0186	0.0166	0.0194
KENN_SOUTH	SW	0.0203	0.0239	0.0222	0.0242	0.0225	0.0252
LITTLETON_DREW	SW	0.0099	0.0136	0.0113	0.0133	0.0111	0.0139
PUCKLECHURCH	SW	0.0108	0.0144	0.0122	0.0142	0.0120	0.0148
ROSS_SW	SW	0.0016	0.0052	0.0025	0.0045	0.0020	0.0047
SEABANK_LDZ	SW	0.0092	0.0163	0.0142	0.0162	0.0141	0.0169
ALREWAS_WM	WM	0.0134	0.0165	0.0143	0.0163	0.0143	0.0170
ASPLEY	WM	0.0164	0.0194	0.0174	0.0195	0.0176	0.0203
AUDLEY_WM	WM	0.0180	0.0211	0.0190	0.0212	0.0158	0.0221
AUSTREY	WM	0.0122	0.0158	0.0135	0.0156	0.0136	0.0163
LEAMINGTON_SPA	WM	0.0082	0.0118	0.0095	0.0115	0.0092	0.0120
LOWER_QUINTON	WM	0.0067	0.0104	0.0079	0.0099	0.0076	0.0103
MILWICH	WM	0.0152	0.0182	0.0161	0.0181	0.0162	0.0189
ROSS_WM	WM	0.0016	0.0052	0.0025	0.0045	0.0020	0.0047
RUGBY	WM	0.0093	0.0129	0.0106	0.0126	0.0104	0.0131
SHUSTOKE	WM	0.0134	0.0170	0.0148	0.0169	0.0149	0.0176
STRATFORD_UPON_AVON	WM	0.0068	0.0105	0.0081	0.0100	0.0077	0.0105
MAELOR	WN	0.0207	0.0238	0.0218	0.0240	0.0187	0.0250
DOWLAIS	WS	0.0001	0.0011	0.0001	0.0002	0.0001	0.0002
DYFFRYN_CLYDACH	WS	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
GILWERN	WS	0.0001	0.0023	0.0001	0.0014	0.0001	0.0015