nationalgrid

NTS Transportation Statement October 2016 R1

The Statement of Gas Transmission Transportation Charges

Effective from 1 October 2016

Contents

Introduction

This publication sets out the transportation charges which apply from 1 October 2016 for the use of the NTS, as required by Standard Special Condition A4 of the National Grid NTS Gas Transporter Licence. This document does not override or vary any of the statutory, Licence or Uniform Network Code obligations upon National Grid NTS.

Further information on the methods and principles on which Transmission transportation charges are derived is set out in Uniform Network Code (UNC) – Transportation Principal Document, Section Y – Charging Methodologies. A copy of the UNC can be found at **www.gasgovernance.co.uk/TPD**.

Details of National Grid and its activities can be found on the National Grid Internet site at www.nationalgrid.com. An electronic version of this publication can be found on our web site at **www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Current-charges/.** **For more information** on the charges set out below, please contact Colin Williams on 01926 655916 or Karin Elmhirst on 01926 655540 or email **box.transmissioncapacityandcharging@nationalgrid.com**.

Changes to Charges – Indicative and Final Notices

NTS Transportation Charges are normally updated on 1 April and 1 October of each year in line with our Licence obligations. When considering changes to charges, National Grid will give an estimate of such changes in an "Indicative Notice" published 150 days prior to implementation and a "Final Notice" published two months prior to implementation. The notices will be available on our website at the following locations, respectively; **www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Forecasts/** and **www2.nationalgrid.com/uk/Industry-information/System-charges/Gas-transmission/Current-charges/.**

Uniform Network Code

The Uniform Network Code (UNC) forms the contractual framework between NTS and DN Gas Transporters, and the shippers whose gas is transported. It is supported by an integrated set of computer systems called UK Link. The charges and formulae in this booklet will be used in the calculation of charges within UK Link, which are the definitive rates for billing purposes.

There are a number of areas of the UNC that impact upon the cost to shippers of using the transportation network, such as imbalance charges, scheduling charges, capacity overruns, top-up neutrality charges and contractual liability. For details of such charges and liabilities, reference should be made to the UNC, which is modified from time to time, and not discussed further in this document.

Units

Charges are expressed and billed as follows:

- Commodity - pence per kilowatt hour (kWh).
- Exit Capacity - pence per kWh per day.
- Entry Capacity - pence per kWh per day.
- Fixed - pence per day.

All charge rates are rounded to 4 decimal places.

Invoicing

Invoices derived from the transportation charges shown within this publication are produced and issued by Xoserve. Xoserve is the invoicing service provider to the NTS and the Distribution Networks (DNs). To clarify this link between pricing and invoicing, charge codes and invoice names are included in the tables in this document.

For more information on invoicing, please contact the Xoserve invoicing team via email at **xo_css_billing@xoserve.com**.

The National Grid NTS Transportation Price Control Formulae

Transportation charges are derived in relation to price control formulae which are set by Ofgem, the gas and electricity market regulator, for the transportation of gas. These formulae determine the maximum revenue National Grid NTS can earn from the transportation of gas. Should National Grid NTS earn more or less than the

maximum permitted revenue in any formula year, a compensating adjustment will be made in the relevant future year as described in the NTS Licence. Where a significant over or under-recovery is anticipated within a year an adjustment to charges may be made during the year.

The price control for the NTS is divided into Transportation Owner (TO) and System Operator (SO) controls. Transportation charges are split to reflect these price control arrangements.

For NTS TO revenue, the target is to recover 50% from Exit Capacity bookings and 50% from Entry Capacity auctions. Both Entry and Exit Capacity charges reflect the estimated long run marginal cost (LRMC) of developing the system to meet a sustained increase in demand and supplies and are based on GCM01 'Methodology for Determination of NTS Entry and Exit Capacity Prices', which uses a Transportation Model. For further details of GCM01 please see our web site at **www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Charging-methodology/Gas-Charging-Methodology-papers/.**

Charges for Entry Capacity are determined by auctions which apply to all system Entry points. Exit Capacity charges are administered and set so as to recover the TO target Exit revenue.

The unpredictability of Entry auction revenue and Exit Capacity bookings means that the 50 / 50 TO revenue split between Entry and Exit may not be achieved in practice. In the event of a forecast under-recovery of auction revenue against the Entry target level, a TO Entry commodity charge may be levied on entry flows and a TO Exit commodity charge may be levied on Exit flows where revenue from Exit Capacity bookings is forecast to be under-recovered. The TO commodity charges are the same at all Entry and Exit points.

SO revenue is recovered through the NTS SO commodity charge. This is a uniform charge, independent of Entry and Exit points, and is levied on both NTS Entry and NTS Exit flows. A distance-related Commodity tariff, the Optional NTS Commodity charge, is also available as an alternative to both the SO and TO Commodity charges.

DN Pensions Deficit

The DN Pensions Deficit Charge is a charge levied on the Distribution Network (DN) Operators. It is designed to collect specific annual cost allowances for the part-funding of the deficit in the National Grid UK Pension Scheme. This deficit relates to the pension costs of former employees of the DNs. The allowance has been included in the NTS TO Price Control Formulae RIIO–T1 effective from 1 April 2013. It is recovered via the application of a DN Pensions Deficit Charge which is levied on each of the DNs on a monthly basis in accordance with National Grid's NTS Licence and the DN's Gas Transporters Licence.

NTS Exit Reform

From the 1 October 2012 the NTS Exit Capacity regime moved from its 'Transitional' to the 'Enduring' period. NTS Exit Reform changes have been approved via UNC Modification 0195AV which introduced Enduring Annual, Annual, Daily Firm and Off-Peak sales of NTS Exit Flat Capacity through Application and Auction based mechanisms. The primary business drivers for the Enduring Offtake arrangements are to provide market signals for NTS investment and to facilitate fair competition.

The terms on which the capacity is sold are set out in the UNC Section B.

Firm transportation charges for the NTS comprise Capacity and Commodity charges.

Details of Exit Capacity applications and auctions can be obtained from National Grid Market Operation on **01926 654058** and via email at **nts.exitcapacity@nationalgrid.com**.

Theft of Gas

The licensing regime places incentives on transporters, shippers and suppliers to take action in respect of suspected theft of gas. Certain costs associated with individual cases of theft are recovered through transportation charges. National Grid's NTS charges reflect these requirements, with National Grid NTS remaining cash neutral in the process.

NTS Capacity Charges

Capacity charges consist of charges for Entry, Exit and credits payable for constrained Liquefied Natural Gas (LNG). This section also includes details of the Interconnector Point (IPs) auctions. Entry and Exit Capacity charges are payable when a right to flow gas is purchased irrespective of whether or not the right is exercised.

NTS TO Entry Capacity

National Grid is obliged to make available for sale System Entry Capacity by means of five related auction mechanisms. For each of the System Entry points, Capacity is made available on a firm and interruptible basis. All Entry Capacity is offered on a pence per kWh per day basis, where the quantity is measured in terms of an end of day entitlement.

Interruptible Capacity is limited to being offered on a daily basis in an auction that is conducted the day ahead of the intended day of use.

Firm Entry Capacity is offered in bundles of quarters, months and days.

For further information on System Entry Capacity charging please refer to **Uniform Network Code (UNC) – Transportation Principal Document, Section Y – Charging Methodologies**.

National Grid's Transportation Model is used to determine prices for Entry and Exit Capacity. The Transportation Model is available to parties that have signed the licence agreement for the model. Details of how to obtain the model can be found on the charging section of our website under Tools and Supporting Information at **www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Tools-and-Models/.**

Quarterly System Entry Capacity

Entry Capacity can be obtained through the Quarterly (firm) System Entry Capacity (QSEC) auction process up to 17 years ahead of the intended year of use. National Grid NTS has an obligation to make available a baseline quantity which is calculated in accordance with paragraph 14(5)(g) of part 2 of Special Condition 2A National Grid NTS's Licence. The baseline quantity from which National Grid NTS's obligation is derived is set out in **Appendix A** of the current **Transmission Transportation Charging Statement**. The minimum quantities to be offered in the Annual System Entry Capacity auctions, after taking into account a requirement to hold back some Capacity for short term allocation, is detailed in **Appendix C** of the current **Transmission Transportation Charging Statement**.

For each of the system Entry points National Grid NTS has determined a baseline price and up to an additional 20 price steps for increments of Capacity that may be demanded above the baseline quantity, as set out in the **Uniform Network Code (UNC) – Transportation Principal Document, Section Y – Charging Methodologies** and the **Entry Capacity Release (ECR) Statement**. The step prices that are applicable for QSEC allocations are set out in **Appendix D** of the current **Transmission Transportation Charging Statement**. Prices are published for each System Entry point and are applicable for all periods in which QSEC is offered. Allocation of Capacity will be conducted in accordance with the provisions set out in National Grid NTS's **Entry Capacity Release (ECR) Statement**.

QSEC auctions take place annually in March.

NTS Entry Capacity Retention Charges

The establishment of Entry Capacity Substitution (ECS), a process by which National Grid Gas moves unsold non-incremental obligated Entry Capacity from one Aggregated System Entry Point (ASEP) to meet the demand for incremental obligated Entry Capacity at a different ASEP, has introduced a "retainer" as an annual product which can be taken out at any Entry point with unsold Capacity. When requested ahead of the Quarterly System Entry Capacity (QSEC) auction, the retainer allows the specified volume of Capacity to be excluded from the substitution process during the QSEC or in any other QSEC auction during the next twelve months.

The costs of taking out a retainer on Entry Capacity may be refunded to the party that takes out a retainer if that Capacity is subsequently purchased by any user in subsequent QSEC or AMSEC auctions, as detailed by the **Entry Capacity Substitution (ECS) Methodology Statement** (available on the National Grid website via the following link **www2.nationalgrid.com/uk/industry-information/gas-capacity-methodologies**/).

The retainer charge is given in **Table 1** and is applicable to all ASEPs.

Table 1 Retainer Charge

Invoice	Charge Code
ADK	QUC

Charge per unit of Entry Capacity retained	**0.2922** pence per KWh of Entry Capacity retained (equates to 0.0001 p/kWh/d for 32 quarters).

Monthly System Entry Capacity

National Grid NTS offers two monthly Capacity products – Monthly System Entry Capacity (firm) (MSEC) and the Rolling Monthly (firm) Trade & Transfer System Entry Capacity (RMTNTSEC) auction.

For each of the System Entry points MSEC is allocated by auction for a period no more than 18 months ahead of the period of use. The maximum quantities to be offered in MSEC allocations are also set out in Appendix B of the current **Transmission Transportation Charging Statement**. MSEC auctions offer monthly tranches of firm Capacity and are held in respect of each Aggregate System Entry Point (ASEP). Capacity is allocated in respect of each bid in descending price order starting at the highest bid until all monthly system Entry Capacity has been allocated or all valid bids have been considered. Successful bidders are liable to pay the bid price of each accepted or part accepted bid.

Annual Monthly System Entry Capacity (AMSEC) auctions take place annually in February for Capacity from the April of that year for 18 months.

Following the final AMSEC auction in which Capacity is offered for the Capacity year any remaining quantities of Entry Capacity can be purchased in the RMTNTSEC auction. The RMTNTSEC auction is conducted within the Capacity year and also facilitates trade and transfer of Entry Capacity. The quantities offered are any unsold baseline Capacity carried over from the AMSEC allocations and any Capacity surrendered during the rolling monthly surrender process. Allocations will be completed by the 3rd business day proceeding the last business day of each calendar month. The Capacity offered and subsequently allocated will be applicable for the following month. For unsold and surrendered Capacity sold, allocations are based on a pay as bid basis but for specific allocations rules please refer to section B2.3 of the UNC.

The method that National Grid will use to facilitate the transfer of unsold, or the trade of sold, NTS Firm Entry Capacity from one ASEP to another is set out in the **Entry Capacity Transfer and Trades Methodology Statement.**

The lowest price that can be accepted in an MSEC allocation is the reserve price as set out in **Table 4**.

Daily System Entry Capacity

National Grid NTS offers two daily Capacity products – a firm Daily System Entry Capacity service (DSEC) and a Daily Interruptible System Entry Capacity service (DISEC). Both services are offered through an auction process and are subject to minimum reserve prices. Successful bidders are liable to pay the bid price of each accepted or part accepted bid. Capacity is allocated, in respect of each bid, in descending price order until all Capacity has been allocated or all valid bids have been considered.

The allocation of DSEC is initiated before the gas day and is repeated at intervals through to 02:00 hours on the gas day. Shippers may have up to 20 bids on the system at any one time. DSEC availability is defined in the UNC as the amount by which System Entry Capacity exceeds firm System Entry Capacity held by shippers plus any additional Daily NTS Entry Capacity that National Grid NTS may choose to make available for the Day.

DISEC is allocated by means of a single auction that is held on the day before the gas day. Shippers may submit up to 20 applications for this Capacity in respect of each ASEP.

DISEC consists of any unutilised firm booked Capacity on a day. National Grid NTS determines the availability of Capacity after consideration of the daily allocation levels at each ASEP on the

day before the gas day. If necessary, National Grid NTS may scale back DISEC entitlements.

Additional Discretionary Release Mechanism for NTS Entry Capacity (DRSEC)

There is an additional Capacity release mechanism which allows National Grid to invite applications for monthly (up to a maximum of 12 months) or, daily (up to a maximum of seven consecutive days) Entry Capacity outside of the existing auction mechanisms. The timing of such invitations and the quantities of Entry Capacity offered are at the sole discretion of National Grid. This would be mainly for discretionary Entry Capacity (in addition to baselines) but under certain circumstances may involve small amounts of unsold obligated Capacity. Discretionary Release System Entry Capacity (DRSEC) released via auction is subject to the prevailing MSEC reserve price and available for a period of no more than one Capacity year.

Entry Capacity Reserve Prices

All System Entry Capacity auctions are subject to reserve prices.

Daily reserve prices are calculated by applying the following discounts to the MSEC Capacity prices: Day Ahead Daily System Entry Capacity (DADSEC) 33.3%, Within Day Daily System Entry Capacity (WDDSEC) 100%, Daily Interruptible System Entry Capacity (DISEC) 100%.

The invoice codes and reserve prices applicable to QSEC, MSEC and DSEC sold before the day are shown in **Table 2** and **Table 4**, respectively.

For DSEC sold on the day and DISEC the reserve price is zero.

Table 2 Invoice Codes NTS Entry Capacity

Service	Invoice	Charge Code
QSEC	NTE	LTC
MSEC	NTE	MEC
DSEC	NTE	DFC
DISEC	NTE	DIC

PARCA Entry Weighted Average Price

The calculation of the Entry PARCA Security Amount is calculated based on the weighted average price of the registered quarterly NTS Entry Capacity Reserve Prices.

These prices are used in the calculation for the PARCA Security Amount as part of the PARCA application only.

The Weighted Average Capacity Prices for Entry are given in **Table 3**.

Table 3 Weighted Average Capacity Price for PARCA Security Amount from 1 October 2016

	Rate p/kWh/day
Entry Weighted Average Price	0.0124

Table 4 Entry Capacity Reserve Prices for Capacity for use from 1 October 2016

MSEC Reserve Prices Pence per kWh per day		
Entry Point	Y	Y+1
Coastal Terminals & LNG Importation	From 1 Oct 16 to 30 Sep 17	From 1 Oct 17 to 30 Sep 18
Bacton UKCS	0.0103	0.0104
Barrow	0.0045	0.0044
Easington & Rough	0.0134	0.0134
Isle of Grain	0.0090	0.0090
Milford Haven	0.0223	0.0239
St Fergus	0.0490	0.0490
Teesside	0.0107	0.0112
Theddlethorpe	0.0135	0.0135
Onshore Fields and Connections		
Burton Point	0.0001	0.0001
Hatfield Moor	0.0050	0.0050
Hole House Farm	0.0001	0.0001
Wytch Farm	0.0001	0.0001
Storage		
Barton Stacey	0.0001	0.0001
Canonbie	0.0047	0.0038
Caythorpe	0.0127	0.0129
Cheshire	0.0001	0.0001
Dynevor Arms	0.0001	0.0001
Fleetwood	0.0011	0.0021
Garton	0.0138	0.0151
Glenmavis	0.0142	0.0142
Hatfield Moor	0.0050	0.0050
Hornsea	0.0138	0.0138
Partington	0.0001	0.0001
Constrained LNG		
Avonmouth	0.0001	0.0001

Table 4 continued

DSEC Reserve Prices, Pence per kWh per day	
Entry Point	
Coastal Terminals & LNG Importation	**from 1 Oct 16 to 30 Sep 17**
Bacton UKCS	0.0069
Barrow	0.0030
Easington&Rough	0.0089
Isle of Grain	0.0060
Milford Haven	0.0149
St Fergus	0.0327
Teesside	0.0071
Theddlethorpe	0.0090
Onshore Fields and Connections	
Burton Point	0.0001
Hatfield Moor	0.0033
Hole House Farm	0.0001
Wytch Farm	0.0001
Storage	
Barton Stacey	0.0001
Canonbie	0.0031
Caythorpe	0.0085
Cheshire	0.0001
Dynevor Arms	0.0001
Fleetwood	0.0007
Garton	0.0092
Glenmavis	0.0095
Hatfield Moor	0.0033
Hornsea	0.0092
Partington	0.0001
Constrained LNG	
Avonmouth	0.0001

Constrained LNG

Shippers that book the constrained Liquefied Natural Gas (LNG) storage service, available from the LNG storage site at Avonmouth, undertake an obligation to provide transmission support gas to National Grid NTS on days of very high demand. In recognition of this, shippers receive a credit in respect of minimum booked storage deliverability. Full details of associated rules are available on request from National Grid NTS's LNG business unit. The credit, shown in **Table 5**, is deducted from the charge for the storage service.

Table 5 Constrained LNG Credit

	Credit Rate based on Capacity	Credit Rate based on Annual Shipper Storage Space Volume
	Pence per registered kWh per day	p/kWh
	From 1 Oct 16	
Avonmouth LNG	0.0000	0.0000

NTS TO Exit Capacity Charges

There are four Capacity products available – Enduring Annual NTS Exit (Flat) Capacity, Annual NTS Exit (Flat) Capacity, Daily Firm NTS Exit (Flat) Capacity and Daily Off-Peak NTS Exit (Flat) Capacity. The Enduring and Enduring Annual products will be released by means of application windows, whilst the Daily Firm and Off-Peak products will be released through auctions. Details of Exit Capacity applications and auctions can be obtained from National Grid Market Operation on **01926 654058** and via email at **nts.exitcapacity@nationalgrid.com**.

Reserve prices for the Daily Firm Capacity auctions are equal to the Enduring Annual/Annual Capacity charges. The reserve price for Off-Peak Daily Capacity, which is auctioned on a daily day ahead basis, is zero.

The NTS TO Exit (Flat) Capacity invoice codes and charges are given in **Table 6** and **Table 8** respectively.

Please note the **indicative NTS Exit (Flat) Capacity charges** for 2017/18 to 2019/20 are available on our web site in a separate document http://www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Current-charges/

Table 6 Invoice Codes NTS Exit Capacity

Service	Invoice	Charge Code
Enduring Annual	NXC	NXA
Annual	NXC	NXA
Daily Firm	NXC	NXD
Daily Off-Peak	NXC	NXO

PARCA Exit Weighted Average Price

The calculation of the Exit PARCA Security Amount is calculated based on the weighted average price of the registered annual and enduring NTS Exit (Flat) capacity for the applicable year.

These prices are used in the calculation for the PARCA Security Amount as part of the PARCA application only.

The Weighted Average Capacity Prices for Exit Capacity applicable from 1 October 2016 is given in **Table 7**.

Table 7 Weighted Average Capacity Price for PARCA Security Amount from 1 October 2016

	Rate p/kWh/day
Exit Weighted Average Price	**0.0128**

Table 8 NTS TO Exit (Flat) Capacity Charges from 1 October 2016, p/kWh/d

Offtake Point	Type of Offtake	2016/17 Final pence/kWh/day
Bacton	GDN (EA)	0.0010
Brisley	GDN (EA)	0.0043
Cambridge	GDN (EA)	0.0115
Great Wilbraham	GDN (EA)	0.0104
Matching Green	GDN (EA)	0.0152
Peterborough Eye (Tee)	GDN (EA)	0.0104
Roudham Heath	GDN (EA)	0.0062
Royston	GDN (EA)	0.0126
Whitwell	GDN (EA)	0.0148
West Winch	GDN (EA)	0.0070
Yelverton	GDN (EA)	0.0037
Alrewas (EM)	GDN (EM)	0.0203
Blaby	GDN (EM)	0.0162
Blyborough	GDN (EM)	0.0069
Caldecott	GDN (EM)	0.0135
Thornton Curtis (DN)	GDN (EM)	0.0011
Drointon	GDN (EM)	0.0216
Gosberton	GDN (EM)	0.0082
Kirkstead	GDN (EM)	0.0058
Market Harborough	GDN (EM)	0.0148
Silk Willoughby	GDN (EM)	0.0072
Sutton Bridge	GDN (EM)	0.0090
Tur Langton	GDN (EM)	0.0150
Walesby	GDN (EM)	0.0030
Asselby	GDN (NE)	0.0049
Baldersby	GDN (NE)	0.0065
Burley Bank	GDN (NE)	0.0089

Offtake Point	Type of Offtake	2016/17 Final pence/kWh/day
Ganstead	GDN (NE)	0.0007
Pannal	GDN (NE)	0.0094
Paull	GDN (NE)	0.0001
Pickering	GDN (NE)	0.0061
Rawcliffe	GDN (NE)	0.0051
Towton	GDN (NE)	0.0074
Bishop Auckland	GDN (NO)	0.0043
Coldstream	GDN (NO)	0.0001
Corbridge	GDN (NO)	0.0050
Cowpen Bewley	GDN (NO)	0.0020
Elton	GDN (NO)	0.0033
Guyzance	GDN (NO)	0.0020
Humbleton	GDN (NO)	0.0001
Keld	GDN (NO)	0.0127
Little Burdon	GDN (NO)	0.0038
Melkinthorpe	GDN (NO)	0.0118
Saltwick Pressure Controlled	GDN (NO)	0.0035
Saltwick Volumetric Controlled	GDN (NO)	0.0035
Thrintoft	GDN (NO)	0.0058
Towlaw	GDN (NO)	0.0066
Wetheral	GDN (NO)	0.0089
Horndon	GDN (NT)	0.0157
Luxborough Lane	GDN (NT)	0.0159
Peters Green	GDN (NT)	0.0153
Peters Green South Mimms	GDN (NT)	0.0153
Winkfield (NT)	GDN (NT)	0.0253
Audley (NW)	GDN (NW)	0.0257
Blackrod	GDN (NW)	0.0223
Ecclestone	GDN (NW)	0.0294

Offtake Point	Type of Offtake	2016/17 Final pence/kWh/day
Holmes Chapel	GDN (NW)	0.0271
Lupton	GDN (NW)	0.0156
Malpas	GDN (NW)	0.0278
Mickle Trafford	GDN (NW)	0.0292
Partington	GDN (NW)	0.0256
Samlesbury	GDN (NW)	0.0207
Warburton	GDN (NW)	0.0253
Weston Point	GDN (NW)	0.0303
Aberdeen	GDN (SC)	0.0001
Armadale	GDN (SC)	0.0001
Balgray	GDN (SC)	0.0001
Bathgate	GDN (SC)	0.0001
Burnervie	GDN (SC)	0.0001
Broxburn	GDN (SC)	0.0001
Careston	GDN (SC)	0.0001
Drum	GDN (SC)	0.0001
St Fergus	GDN (SC)	0.0001
Glenmavis	GDN (SC)	0.0001
Hume	GDN (SC)	0.0007
Kinknockie	GDN (SC)	0.0001
Langholm	GDN (SC)	0.0061
Lauderhill	GDN (SC)	0.0020
Lockerbie	GDN (SC)	0.0050
Netherhow cleugh	GDN (SC)	0.0029
Pitcairngreen	GDN (SC)	0.0001
Soutra	GDN (SC)	0.0026
Stranraer	GDN (SC)	0.0038
Farningham	GDN (SE)	0.0179
Farningham B	GDN (SE)	0.0179

Offtake Point	Type of Offtake	2016/17 Final pence/kWh/day
Shorne	GDN (SE)	0.0167
Tatsfield	GDN (SE)	0.0199
Winkfield (SE)	GDN (SE)	0.0253
Braishfield A	GDN (SO)	0.0294
Braishfield B	GDN (SO)	0.0294
Crawley Down	GDN (SO)	0.0279
Hardwick	GDN (SO)	0.0192
Ipsden	GDN (SO)	0.0229
Ipsden 2	GDN (SO)	0.0229
Mappowder	GDN (SO)	0.0350
Winkfield (SO)	GDN (SO)	0.0253
Aylesbeare	GDN (SW)	0.0379
Cirencester	GDN (SW)	0.0257
Coffinswell	GDN (SW)	0.0410
Easton Grey	GDN (SW)	0.0263
Evesham	GDN (SW)	0.0216
Fiddington	GDN (SW)	0.0208
Ilchester	GDN (SW)	0.0330
Kenn	GDN (SW)	0.0392
Littleton Drew	GDN (SW)	0.0272
Lyneham (Choakford)	GDN (SW)	0.0441
Pucklechurch	GDN (SW)	0.0282
Ross (SW)	GDN (SW)	0.0175
Seabank (DN)	GDN (SW)	0.0304
Alrewas (WM)	GDN (WM)	0.0203
Aspley	GDN (WM)	0.0238
Audley (WM)	GDN (WM)	0.0257
Austrey	GDN (WM)	0.0195
Leamington	GDN (WM)	0.0186

Offtake Point	Type of Offtake	2016/17 Final pence/kWh/day
Lower Quinton	GDN (WM)	0.0207
Milwich	GDN (WM)	0.0223
Ross (WM)	GDN (WM)	0.0175
Rugby	GDN (WM)	0.0173
Shustoke	GDN (WM)	0.0209
Stratford-upon-Avon	GDN (WM)	0.0202
Maelor	GDN (WN)	0.0288
Dowlais	GDN (WS)	0.0128
Dyffryn Clydach	GDN (WS)	0.0100
Gilwern	GDN (WS)	0.0141
Abson (Seabank Power Station phase I)	DC	0.0282
APACHE	DC	0.0001
Bacton (Great Yarmouth)	DC	0.0010
Barking (Horndon)	DC	0.0157
Barrow (Black Start)	DC	0.0116
Billingham ICI (Terra Billingham)	DC	0.0023
Bishop Auckland (test facility)	DC	0.0043
Blackbridge (Pembroke PS)	DC	0.0007
Blackness (BP Grangemouth)	DC	0.0001
Blyborough (Brigg)	DC	0.0080
Blyborough (Cottam)	DC	0.0069
Brine Field (Teesside) Power Station	DC	0.0015
Burton Point (Connahs Quay)	DC	0.0306
Caldecott (Corby Power Station)	DC	0.0131
Carrington (Partington) Power Station	DC	0.0256
Centrax Industrial	DC	0.0408
Cockenzie Power Station	DC	0.0001
Coryton 2 (Thames Haven) Power Station	DC	0.0160
Deeside	DC	0.0307

Offtake Point	Type of Offtake	2016/17 Final pence/kWh/day
Didcot PS	DC	0.0233
Drakelow Power Station	DC	0.0197
Eastoft (Keadby Blackstart)	DC	0.0068
Eastoft (Keadby)	DC	0.0068
Enron Billingham	DC	0.0023
Epping Green (Enfield Energy, aka Brimsdown)	DC	0.0162
Ferny Knoll (AM Paper)	DC	0.0225
Glasgoforest	DC	0.0001
Goole (Guardian Glass)	DC	0.0055
Gowkhall (Longannet)	DC	0.0001
Grain Power Station	DC	0.0152
Harwarden (Shotton, aka Shotton Paper)	DC	0.0305
Hatfield Power Station	DC	0.0051
Hollingsgreen (Hays Chemicals)	DC	0.0269
Langage Power Station	DC	0.0441
Marchwood Power Station	DC	0.0297
Medway (aka Isle of Grain Power Station, NOT Grain Power)	DC	0.0153
Middle Stoke (Damhead Creek, aka Kingsnorth Power Station)	DC	0.0152
Pembroke CHP (South Hook CHP)	DC	0.0007
Peterborough (Peterborough Power Station)	DC	0.0108
Phillips Petroleum, Teeside	DC	0.0015
Pickmere (Winnington Power, aka Brunner Mond)	DC	0.0263
Roosecote (Roosecote Power Station)	DC	0.0116
Rosehill (Saltend Power Station)	DC	0.0001
Ryehouse	DC	0.0168
Saddle Bow (Kings Lynn)	DC	0.0069
Saltend BPHP (BP Saltend HP)	DC	0.0003
Sandy Lane (Blackburn CHP, aka Sappi Paper Mill)	DC	0.0211

Offtake Point	Type of Offtake	2016/17 Final pence/kWh/day
Seabank (Seabank Power Station phase II)	DC	0.0302
SEAL SANDS TGPP	DC	0.0015
Sellafield Power Station	DC	0.0163
Shellstar (aka Kemira, not Kemira CHP)	DC	0.0299
Shotwick (Bridgewater Paper)	DC	0.0302
Spalding 2 (South Holland) Power Station	DC	0.0086
St. Fergus (Peterhead)	DC	0.0001
St. Fergus (Shell Blackstart)	DC	0.0001
St. Neots (Little Barford)	DC	0.0149
Stallingborough (phase 1 and 2)	DC	0.0021
Stanford Le Hope (Coryton)	DC	0.0160
Staythorpe PH1 and PH2	DC	0.0103
Sutton Bridge Power Station	DC	0.0089
Teesside (BASF, aka BASF Teesside)	DC	0.0015
Teesside Hydrogen	DC	0.0016
Terra Nitrogen (aka ICI, Terra Severnside)	DC	0.0301
Thornton Curtis (Humber Refinery, aka Immingham)	DC	0.0011
Thornton Curtis (Killingholme)	DC	0.0011
Tilbury Power Station	DC	0.0164
Tonna (Baglan Bay)	DC	0.0101
TRAFFORD_PS	DC	0.0256
Upper Neeston (Milford Haven Refinery)	DC	0.0001
West Burton PS	DC	0.0070
Weston Point (Castner Kelner, aka ICI Runcorn)	DC	0.0303
Weston Point (Rocksavage)	DC	0.0303
Willington Power Station	DC	0.0214
Wragg Marsh (Spalding)	DC	0.0086
Wyre Power Station	DC	0.0199
Zeneca (ICI Avecia, aka 'Zenica')	DC	0.0023

Offtake Point	Type of Offtake	2016/17 Final pence/kWh/day
Avonmouth Max Refill	STORAGE SITE	0.0302
Bacton (Baird)	STORAGE SITE	0.0010
Deborah Storage (Bacton)	STORAGE SITE	0.0010
Barrow (Bains)	STORAGE SITE	0.0116
Barrow (Gateway)	STORAGE SITE	0.0116
Barton Stacey Max Refill (Humbly Grove)	STORAGE SITE	0.0276
Caythorpe	STORAGE SITE	0.0030
Cheshire (Holford)	STORAGE SITE	0.0262
Dynevor Max Refill	STORAGE SITE	0.0121
Rough Max Refill	STORAGE SITE	0.0001
Garton Max Refill (Aldbrough)	STORAGE SITE	0.0001
Glenmavis Max Refill	STORAGE SITE	0.0001
Hatfield Moor Max Refill	STORAGE SITE	0.0060
Hole House Max Refill	STORAGE SITE	0.0268
Hornsea Max Refill	STORAGE SITE	0.0016
Partington Max Refill	STORAGE SITE	0.0256
Stublach (Cheshire)	STORAGE SITE	0.0262
Saltfleetby Storage (Theddlethorpe)	STORAGE SITE	0.0016
Hill Top Farm (Hole House Farm)	STORAGE SITE	0.0268
Fordoun CNG Station	New site	0.0001
Air Products	New site	0.0016

NTS Interconnection Point Capacity Charges

From 1 November 2015 there are new UNC terms which are applicable for Interconnection Points (IPs). For both Entry and Exit Capacity there are a number of new auctions as specified in European Interconnection Document (EID) Section B – Capacity.

NTS Interconnection Point (IP) Capacity

There are two different types of auctions, as specified in EID Section B:

- Ascending Clock Auctions, which are for the Annual Yearly, Annual Quarterly and Rolling Monthly
- Uniform Price Auctions, which are for the Rolling Day Ahead and Within Day

All auctions have reserve prices which are applicable for the specific auction.

For the Ascending Clock Auctions there is also an applicable Large Price Step which is the greater of 5% of the applicable reserve price or 0.0001 p/kWh/day. Each small price step is 1/5th of an applicable Large Price Step.

Entry Interconnection Point (IP) Auctions

NTS IP Entry Annual Yearly Capacity

NTS IP Entry Annual Yearly and Entry Annual Quarterly Capacity auctions take place in March and June, respectively. The Reserve prices are given in **Table 9** and **Table 10** respectively.

Table 9 Reserve Prices Interconnection Points (IPs) for the Entry Annual Yearly and Annual Quarterly auctions, Pence per kWh per day

Reserve Prices, IPs for the Entry Annual Yearly Capacity Auctions	
EU Interconnector Points (IPs)	1 Oct 16 to 30 Sep 31 Pence per kWh per day
Bacton IP	0.0106

NTS IP Entry Annual Quarterly Capacity

Table 10 Reserve prices IPs for Entry Annual Quarterly Capacity auctions, p/kWh/d

Reserve Prices, IPs for the Entry Annual Quarterly Auctions	
EU Interconnector Points (IPs)	1 Oct 16 to 30 Sep 17 Pence per kWh per day
Bacton IP	0.0106

NTS IP Entry Rolling Monthly Capacity

IP Rolling Monthly Capacity Reserve Prices are produced at the same time and using the same methodology as the MSEC prices. The Reserve Prices are given in **Table 11**.

Table 11 Reserve Prices Interconnection Points (IPs) for the Entry Rolling Monthly auctions, Pence per kWh per day

Reserve Prices, IPs for Entry Rolling Monthly Auctions, p/kWh/d	
EU Interconnector Points (IPs)	1 Oct 16 to 30 Sep 17
Bacton IP	0.0103
Moffat Interconnector[1]	0.0083

NTS IP Entry Rolling Day Ahead Capacity

IP Rolling Day Ahead Capacity Reserve Prices are produced at the same time and using the same methodology as the DSEC prices. The Rolling Day Ahead Reserve Prices have a 33.3% discount applied to the IP Rolling Monthly Capacity Prices. The Reserve Prices are given in **Table 12**.

[1] The Moffat reserve price is for use in overrun calculations only, no firm Capacity will be released.

Table 12 Reserve Prices Interconnection Points (IPs) for the Entry Rolling Day Ahead auctions, Pence per kWh per day

Reserve Prices, IPs for Entry Rolling Day Ahead Auctions	
EU Interconnector Points (IPs)	1 Oct 16 to 30 Sep 17
Bacton IP	0.0069
Moffat Interconnector	0.0055

The Reserve Price for IP Entry Interruptible Rolling Day Ahead capacity auction, which is auctioned on a daily day ahead basis, is zero.

NTS Interconnection Point (IP) Entry Within Day Capacity Prices

The reserve price for IP Entry Within Day capacity auction, which is auctioned after the day ahead auctions, is zero.

Exit Interconnection Point (IP) Auctions

NTS IP Exit Annual Yearly and Exit Annual Quarterly Capacity

NTS IP Exit Annual Yearly and Entry Annual Quarterly Capacity auctions take place in March and June, respectively and the reserve prices are given in **Table 13.**

Table 13 Reserve Prices, Interconnection Points (IPs) for the Annual Yearly and Annual Quarterly auctions, Pence per kWh per day

Reserve Prices, Interconnection Points (IPs) for the Exit Annual Yearly and Annual Quarterly Auctions	
EU Interconnector Points (IPs)	1 Oct 16 to 30 Sep 17 Pence per kWh per day
Bacton IUK	0.0010
Bacton BBL	0.0010
Moffat Interconnector	0.0038

Please note the indicative NTS IP Exit Capacity charges for 2017/18 to 2019/20 are available on our web site in a separate document http://www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Current-charges/ Notice of Exit Capacity Charges 1 October 2016 and Indicatives 2017-18 to 2019-20. Details of the 2017-18 reserve prices can also be found in Appendix F.

NTS IP Exit Rolling Monthly, Exit Rolling Day Ahead, Exit Within Day Capacity

Reserve Prices for the Exit Rolling Monthly, Exit Rolling Day Ahead, Exit Within Day Capacity are the same rates and given in **Table 14.**

The Reserve Price for IP Interruptible Rolling Day Ahead Capacity auction, which is auctioned on a daily day ahead basis, is zero.

Table 14 Reserve Prices, Interconnection Points (IPs) for the Exit Rolling Monthly, Day Ahead and Within Day auctions, Pence per kWh per day

Reserve Prices, IPs for the Exit Rolling Monthly, Day Ahead and Within Day auctions, Pence per kWh per day	
EU Interconnector Points (IPs)	1 Oct 16 to 30 Sep 17
Bacton IUK	0.0010
Bacton BBL	0.0010
Moffat Interconnector	0.0038

Details of Exit Capacity applications and auctions can be obtained from National Grid Market Operation on 01926 654058 and via email at nts.exitcapacity@nationalgrid.com.

NTS Commodity Charges

NTS Commodity charges are payable on gas allocated to shippers at Exit and Entry. Commodity charges on gas flows at NTS Storage facilities, other than on the amount of gas utilised as part of the operation of any NTS Storage facility, known as storage "own use" gas are zero. The NTS Commodity charges are uniform rates, independent of Entry or Exit points.

NTS TO Entry Commodity Charge

The NTS TO Entry Commodity charge may be levied where an under-recovery of TO Entry revenue against the Entry target level is forecast. The charge is levied on entry flows only at Entry terminals (but not storage facilities) and would address only a forecast TO revenue under-recovery that does not arise from NTS Exit Capacity charging. For the avoidance of doubt, the TO Entry Commodity rate would be set to zero where forecast Entry TO revenue is at, or above, the Entry revenue target level.

The rate is identified in the Commodity schedule given in **Table 15.**

NTS TO Entry Commodity Charge Rebate

The TO Entry Commodity rebate mechanism has been introduced to reduce any TO over-recovery resulting from NTS Entry Capacity auctions. The process may be triggered at the end of the formula year based on the outcome of all NTS Entry Capacity auctions that represent a TO revenue stream. This mechanism will only be triggered if there remains a residual over-recovery amount after taking into account any revenue redistributed by the buy-back offset mechanism (as defined in 2.3.2 of Section Y (Charging Methodologies) in the Uniform Network Code (UNC) if this residual over-recovery is in excess of £1m (this equates to the minimum TO Entry Commodity charge of 0.0001 p/kWh).

NTS TO Entry Commodity Charge Credit

The TO Entry Commodity credit mechanism, which represents a retrospective negative TO Entry Commodity charge, will be used if there remains a residual over-recovery amount after taking into account any revenue redistributed via the TO Entry Commodity rebate mechanism. Credits will be paid following the end of the formula year.

NTS TO Exit Commodity Charge

A TO Exit (Flat) Commodity charge has been introduced to offset any under recovery arising from a shortfall between NTS Exit (Flat) capacity charges and TO Exit allowed revenue. Any TO Exit over-recovery will be dealt with through the k mechanism for TO Exit.

The rate is identified in the Commodity schedule given in **Table 15.**

NTS SO Commodity Charge

The NTS SO Commodity charge is a uniform rate, independent of Entry and Exit points, and is levied on both NTS Entry and NTS Exit flows.

The rate is identified in **Table 15** below.

Table 15 NTS Commodity Charges

Invoice	Charge Code
ECO	NCE

	Pence per kWh
TO Entry	0.0481
SO Entry	0.0129
Combined Entry Rate	0.0610

Invoice	Charge Code
COM	NCO

	Pence per kWh
TO Exit	0.0212
SO Exit	0.0129
Combined Exit Rate	0.0341

Both the NTS Entry Commodity (NCE) and NTS Exit Commodity (NCO) will be invoiced using the combined rates.

NTS Optional Commodity Charge

The NTS Optional Commodity charge (known as the shorthaul rate) is available as an alternative to both the NTS Entry / Exit SO and TO Commodity charges. It may be attractive for large daily metered sites located near to Entry terminals, since the NTS SO and TO Commodity charges are not distance-related and can result in a relatively high charge for short distance transportation. This could give perverse economic incentives to build dedicated pipelines bypassing the NTS, resulting in an inefficient outcome for all system users.

The Optional Commodity charge applies in respect of gas delivered from the local specified terminal. The charge is site specific and is calculated by the function shown in **Table 16** as given in the UNC Section Y.

Table 16 NTS Optional Commodity Charge

Invoice	Charge Code
ADU	880

Pence per kWh
$1203 \times [(M)^{\wedge -0.834}] \times D + 363 \times (M)^{\wedge -0.654}$

where **D** is the direct distance from the site or non-National Grid NTS pipeline to the elected terminal in km and **M** is Maximum NTS Exit Point Offtake Rate (MNEPOR) converted into kWh/day at the site. Note that ^ means "to the power of …"

Further information on NTS Optional Commodity charge, please contact Colin Williams on **01926 655916** or Karin Elmhirst on **01926 655540** or email **box.transmissioncapacityandcharging@nationalgrid.com**.

Compression Charge

An additional charge is payable where gas is delivered into the National Grid NTS system at a lower pressure than that required, reflecting the need for additional compression. For gas delivered at the Total Oil Marine sub-terminal at St. Fergus, a compression charge is payable at the rate identified in **Table 17.**

Table 17 St. Fergus Compression Charge

Invoice	Charge Code
ADZ	900

	Pence per kWh
Compression	0.0083

Other Charges

Other Charges include DN Pension Deficit charges, metering charges and administration charges at Connected System Exit Points, Shared Supply Meter Points and Interconnectors.

DN Pension Deficit Charge

The share of the pension deficit cost allowance associated with former employees of the DNs is recovered via the DN Pension Deficit Charges levied on each of the DNs on a monthly basis. The monthly charges for the financial year 2016/17 are shown in **Table 18** DN Pension Deficit Charge below.

Table 18 DN Pension Deficit Charge

Invoice	Charge Code
ADN	N23

DN	Monthly Charge, £	Per Annum, £m
East of England	916,238	10.99
London	534,155	6.41
North West	629,201	7.55
West Midlands	454,317	5.45
North of England	583,579	7.00
Scotland	402,993	4.84
South of England	933,346	11.20
Wales and the West	558,867	6.71

Metering Charges

Table 19 below shows a schedule of National Grid NTS's metering charges to apply from 1 October 2016. National Grid NTS provides metering charges for those services that it is obliged to offer under its Gas Transporter Licence coupled with those services that are currently offered for historical / legacy purposes i.e. where a Datalogger or Converter has been fitted at an NTS Site or there is a maintenance requirement for an NTS High Pressure Meter Installation.

Table 19 Annual Rental Charges

High Pressure Metering Installations (>7 barg)

Capacity (scmh)	< 10,192	>=10,192<14,906	>=14,906<25,878	>=25,878<36,866	>=36,866<63,524	>=63,524
£ per annum Maintenance	£13,997.21	£14,851.67	£16,797.44	£17,482.96	£19,192.98	£24,790.75
Pence per day Maintenance	3,834.85	4,068.95	4,602.04	4,789.85	5,258.35	6,791.99

Rotary and Turbine meters

Capacity (scmh)	Rotary >=792<1,358	Turbine <283
£ per annum Maintenance	£351.59	£845.59
Pence per day Maintenance	96.3247	231.6697

Volume converters (Correctors)

	Pence per day	£ per annum
Provision	45.4262	£165.81
Installation	18.3118	£66.84
Maintenance	41.2739	£150.65

Charges are only applied only where a Volume Converter has been installed. Any requests for a Volume Converter to be fitted will be treated in accordance with National Grid's GT Licence and will be quoted on an individual basis.

Dataloggers

	Pence per day	£ per annum
Provision	11.2981	41.2382
Installation	50.4067	183.9842
Maintenance	76.2478	278.3042
Total	137.9525	503.5266

The above charges are only applied where a Datalogger has been installed.

Connected System Exit Points (CSEPs)

A CSEP is a system point comprising one or more individual exit points which are not supply meter points. Separate administration processes are required to manage the daily operations and invoicing associated with CSEPs for which an administration charge is made.

The administration charge which applies to CSEPs containing NDM and DM sites is given in **Table 20.**

Table 20 CSEP Administration Charge

Invoice	Charge Code
ADU	884

Charge per supply point	**0.0829** pence per day (£0.30 per annum)

Shared Supply Meter Point Allocation Arrangements

National Grid NTS offers an allocation service for daily metered supply points with AQs of more than 58,600 MWh per annum. This allows up to four (six for VLDMCs) shippers / suppliers to supply gas through a shared supply meter point.

The allocation of daily gas flows between the shippers / suppliers can be done either by an appointed agent or by National Grid NTS.

The administration charges which relate to these arrangements are shown in **Table 21**. Individual charges depend on the type of allocation service nominated and whether the site is telemetered or non-telemetered.

Table 21 Shared Supply Meter Point Administration Charges (£ per shipper per supply point)

Invoice	Charge Code
ADU	884

Agent Service	Telemetered	Non-telemetered
Set-up charge	**£107.00**	**£183.00**
Shipper-shipper transfer charge	**£126.00**	**£210.00**
Daily charge	**£2.55**	**£2.96**

National Grid NTS Service	Telemetered	Non-telemetered
Set-up charge	**£107.00**	**£202.00**
Shipper-shipper transfer charge	**£126.00**	**£210.00**
Daily charge	**£2.55**	**£3.05**

Allocation Arrangements at Interconnectors

The allocation charges that apply at interconnectors (GB-Ireland and UK-Continent) and apply for each supply point are shown in **Table 22**. Allocating daily gas flows between shippers / suppliers can be done either by an appointed agent or by National Grid NTS. The same set up charge applies in either case. The daily charge depends on whether the service is provided through an agent or not.

Table 22 Allocation Charges at Interconnectors

Invoice	Charge Code
ADU	884

	Set up charge per shipper	Daily charge per shipper
Agent service	**£141.70**	**£1.62**
National Grid NTS service	**£141.70**	**£2.46**

Administration Charges at Moffat

The following administration charges apply only to the GB-Ireland interconnector at Moffat. The charges, which vary if the service is provided via an agent or National Grid NTS, are detailed in **Table 23** below.

Table 23 Administration Charges for Moffat

Invoice	Charge Code
ADU	884

	Daily charge per shipper
Agent service	**£0.00**
National Grid NTS service	**£0.00**

The charges, with or without an agent, cover the operation of the flow control valve. In addition the National Grid NTS service provides the Exit Flow Profile Notice (EPN). In the event that the appointed agent fails to provide an EPN to national Grid NTS, the following additional charge will apply:EPN Default Charge per shipper per event is £0.00

Appendices

Appendix A NTS Non-Incremental Obligated Entry Capacity

Non-incremental Obligated Entry capacity is the sum of the Licence Baseline capacity adjusted for substitution and legacy TO Entry capacity as shown in the tables below.

Table 24 below details the Licence baseline obligated Entry capacity GWh/day identified in National Grid NTS's Transporters Licence and used as the basis for determination of minimum annual quantities to be offered after 1 April 2013.[2]

Table 25 and **Table 26** show Entry capacity Substitution and Legacy TO Entry Capacity, respectively.

Table 24 Licence Baseline Entry Capacity (GWh/day) after 1 November 2015

NTS Entry Point	Type of Entry	Baseline Capacity (in GWh/d)
Bacton UKCS	Beach Terminal	485.6
Bacton IP	Interconnection Point	1297.8
Barrow	Beach Terminal	309.1
Easington	Beach Terminal	1,062.0
Isle of Grain	LNG Importation Terminal	218.0
Milford Haven	LNG Importation Terminal	0
St Fergus	Beach Terminal	1,670.7
Teesside	Beach Terminal	476.0
Theddlethorpe	Beach Terminal	610.7
Burton Point	Onshore Field	73.5
Hatfield Moor (onshore)	Onshore Field	0.3
Hole House Farm	Storage Site	131.6
Wytch Farm	Onshore Field	3.3
Barton Stacey	Storage Site	172.6
Cheshire	Storage Site	285.9
Fleetwood	Storage Site	0
Garton	Storage Site	420.0
Glenmavis	Storage Site	99.0
Hatfield Moor (storage)	Storage Site	25.0
Hornsea	Storage Site	175.0
Partington	Storage Site	215.0

[2] On 1 November 2015 the Licence baseline changed for Bacton to split Bacton ASEP into Bacton UKCS and Bacton IP

Avonmouth	Storage Site	179.3
Dynevor Arms	Storage Site	49.0
Burton Agnes (Caythorpe)	Storage Site	0
Winkfield	Storage Site	0
Blyborough (Welton)	Storage Site	0
Tatsfield	Storage Site	0
Albury	Storage Site	0
Palmers Wood	Storage Site	0
Portland	Storage Site	0
Canonbie	Onshore Field	0
Moffat	Interconnection Point	0

Table 25 Entry Capacity Substitution

Terminal	Date when substitution applies	Entry Capacity Substitution GWh/d
Barrow	January 2015	30.91
Teesside	January 2015	-30.91

Table 26 Legacy TO Entry Capacity

Terminal	Date applicable	Capacity GWh/d
Milford Haven	April 2017	650
Milford Haven	April 2017	300
Isle of Grain	April 2017	235.4
Easington	April 2017	345
Hornsea	April 2017	58.1
Fleetwood	April 2017	650
Cheshire	April 2017	64.2
Cheshire	April 2017	192.6
Isle of Grain	October 2015	246.24
Caythorpe	October 2016	90
Hole House Farm	October 2016	165

Appendix B AMSEC Entry Capacity

Obligated system Entry capacity offered in Annual System Entry Capacity auctions is determined in accordance with National Grid NTS's Transporters Licence.

National Grid will conduct the MSEC auctions and will publish the quantity of System Entry Capacity being offered for each month in the Capacity Period in respect of each Aggregate System Entry Point along with reserve prices in an invitation letter to the community. The letter will also be sent by E-Mail and fax (business hours operational list) and will be posted on the National Grid web site under Gas/Operational Data/Capacity Auctions.

Appendix C QSEC Entry Capacity

Obligated system Entry capacity to be offered in the next Annual System Entry Capacity auctions is determined in accordance with National Grid NTS's Transporters Licence. For periods that are subject to a QSEC allocation, then supply can be further expanded in accordance with National Grid NTS's ECR statement.

National Grid will conduct the QSEC auctions and will publish the quantity of System Entry Capacity being offered for each month in the Capacity Period in respect of each Aggregate System Entry Point along with reserve prices in an invitation letter to the community. The letter will also be sent by E-Mail and fax (business hours operational list) and will be posted on the National Grid web site under Gas/Operational Data/Capacity Auctions.

Appendix D QSEC Entry Capacity Step Prices 2017

Below are the Entry capacity reserve prices together with the price steps for each level of incremental capacity for use in the March 2017 auction of Quarterly System Entry Capacity (QSEC).

	Bacton Terminal UKCS	Barrow	Cheshire	Canonbie	Easington & Rough	Fleetwood	Garton	Isle of Grain	Milford Haven	St Fergus	Teesside	Theddlethorpe
Obligated Level	0.0114	0.0001	0.0001	0.0040	0.0139	0.0027	0.0159	0.0093	0.0255	0.0487	0.0101	0.0140
2.5%	0.0115	0.0002	0.0026	0.0041	0.0140	0.0028	0.0160	0.0099	0.0256	0.0503	0.0102	0.0146
5.0%	0.0116	0.0003	0.0027	0.0042	0.0145	0.0029	0.0161	0.0121	0.0257	0.0504	0.0103	0.0147
7.5%	0.0117	0.0006	0.0028	0.0043	0.0146	0.0031	0.0162	0.0122	0.0258	0.0505	0.0104	0.0148
10.0%	0.0118	0.0007	0.0032	0.0044	0.0147	0.0037	0.0163	0.0123	0.0259	0.0506	0.0110	0.0154
12.5%	0.0119	0.0017	0.0033	0.0045	0.0148	0.0038	0.0164	0.0124	0.0260	0.0516	0.0111	0.0155
15.0%	0.0120	0.0018	0.0043	0.0046	0.0152	0.0039	0.0165	0.0125	0.0261	0.0519	0.0112	0.0159
17.5%	0.0121	0.0019	0.0044	0.0047	0.0173	0.0040	0.0166	0.0126	0.0262	0.0522	0.0113	0.0160
20.0%	0.0122	0.0022	0.0051	0.0048	0.0174	0.0041	0.0167	0.0127	0.0263	0.0531	0.0114	0.0161
22.5%	0.0123	0.0025	0.0055	0.0049	0.0175	0.0042	0.0168	0.0128	0.0264	0.0532	0.0115	0.0162
25.0%	0.0124	0.0026	0.0079	0.0050	0.0176	0.0043	0.0169	0.0129	0.0265	0.0534	0.0128	0.0163
27.5%	0.0125	0.0027	0.0080	0.0051	0.0177	0.0044	0.0170	0.0130	0.0266	0.0558	0.0134	0.0164
30.0%	0.0126	0.0028	0.0091	0.0052	0.0178	0.0045	0.0171	0.0131	0.0267	0.0559	0.0135	0.0165
32.5%	0.0127	0.0048	0.0092	0.0053	0.0179	0.0046	0.0172	0.0132	0.0268	0.0560	0.0136	0.0166
35.0%	0.0141	0.0049	0.0093	0.0054	0.0180	0.0051	0.0173	0.0133	0.0277	0.0561	0.0137	0.0167
37.5%	0.0142	0.0050	0.0094	0.0055	0.0181	0.0052	0.0174	0.0134	0.0280	0.0562	0.0138	0.0168
40.0%	0.0143	0.0051	0.0095	0.0056	0.0182	0.0068	0.0175	0.0135	0.0289	0.0563	0.0145	0.0169
42.5%	0.0144	0.0052	0.0096	0.0057	0.0183	0.0076	0.0176	0.0136	0.0312	0.0564	0.0146	0.0173
45.0%	0.0145	0.0055	0.0097	0.0058	0.0188	0.0079	0.0177	0.0137	0.0313	0.0565	0.0147	0.0177
47.5%	0.0146	0.0056	0.0098	0.0059	0.0189	0.0083	0.0178	0.0138	0.0314	0.0566	0.0148	0.0178
50.0%	0.0147	0.0057	0.0099	0.0066	0.0190	0.0084	0.0179	0.0139	0.0315	0.0567	0.0150	0.0179
Obligated Level (GWh/d)	485.6	340.01	542.7	0	1407.15	650	420	699.68	950	1670.7	445.09	610.7

Hole House Farm		Hornsea		Partington		Avonmouth		Barton Stacey	
Obligated Level	0.0001	Obligated Level	0.0126	Obligated Level	0.0001	Obligated Level	0.0001	Obligated Level	0.0001
5.1%	0.0002	6.4%	0.0127	7.0%	0.0012	8.4%	0.0002	8.7%	0.0075
10.1%	0.0003	12.9%	0.0128	14.0%	0.0023	16.7%	0.0007	17.4%	0.0076
15.2%	0.0004	19.3%	0.0129	20.9%	0.0043	25.1%	0.0008	26.1%	0.0096
20.2%	0.0005	25.7%	0.0130	27.9%	0.0044	33.5%	0.0011	34.8%	0.0106
25.3%	0.0016	32.2%	0.0131	34.9%	0.0045	41.8%	0.0019	43.5%	0.0108
30.3%	0.0020	38.6%	0.0133	41.9%	0.0046	50.2%	0.0035	52.1%	0.0129
35.4%	0.0021	45.0%	0.0136	48.8%	0.0047				
40.5%	0.0022	51.5%	0.0137	55.8%	0.0048				
45.5%	0.0039								
50.6%	0.0040								
Obligated Level (GWh/d)	296.6	**Obligated Level (GWh/d)**	233.1	**Obligated Level (GWh/d)**	215	**Obligated Level (GWh/d)**	179.3	**Obligated Level (GWh/d)**	172.6

	Burton Point	Caythorpe	Dynevor Arms	Glenmavis	Hatfield Moor	Wytch Farm
Obligated Level	0.0001	0.0134	0.0010	0.0138	0.0052	0.0001
10%	0.0002	0.0135	0.0011	0.0139	0.0053	0.0002
20%	0.0006	0.0136	0.0012	0.0169	0.0054	0.0003
30%	0.0007	0.0137	0.0017	0.0170	0.0055	0.0004
40%	0.0008	0.0138	0.0046	0.0171	0.0056	0.0005
50%	0.0009	0.0139	0.0069	0.0172	0.0057	0.0006
Obligated Level (GWh/d)	73.5	90	49	99	25.3	3.3

Appendix E Estimated Project Values £m

	Bacton UKCS	Barrow	Cheshire	Canonbie	Easington & Rough	Fleetwood	Garton	Isle of Grain	Milford Haven	St Fergus	Teesside	Theddlethorpe
Obligated Level												
2.5%	4.92	0.03	1.25	2.19	17.38	1.56	5.93	6.15	21.52	74.65	3.99	7.92
5.0%	9.84	0.06	2.51	4.37	36.25	3.12	11.87	15.04	43.04	149.60	8.07	15.84
7.5%	14.75	0.54	3.76	6.56	54.38	5.37	17.80	22.75	65.07	224.40	12.10	23.76
10.0%	19.67	0.73	6.17	8.74	72.50	8.55	23.73	30.33	86.76	299.20	17.40	33.42
12.5%	24.59	2.57	7.71	10.93	90.63	10.68	29.66	37.92	108.44	382.91	21.75	41.77
15.0%	29.51	3.08	12.44	13.11	114.00	12.82	35.59	46.24	130.13	462.16	26.10	51.76
17.5%	34.42	3.59	14.51	15.30	151.38	14.96	41.53	53.95	154.78	542.31	30.45	60.76
20.0%	39.34	5.32	19.67	17.48	173.00	17.09	47.46	61.66	176.89	630.47	35.11	69.44
22.5%	44.26	6.80	23.86	19.67	196.88	19.23	53.39	69.37	199.00	710.61	39.50	78.12
25.0%	49.18	7.55	38.09	21.85	218.75	21.37	59.32	77.07	221.11	792.53	50.61	86.80
27.5%	54.10	8.31	41.90	29.32	240.63	23.50	65.26	84.78	243.22	910.97	58.28	95.48
30.0%	61.60	9.06	52.65	31.98	262.51	25.64	71.19	96.22	265.33	993.78	63.58	104.16
32.5%	71.22	18.85	57.03	34.65	284.38	27.77	77.12	104.23	294.02	1076.60	68.88	112.84
35.0%	85.15	20.30	61.42	37.31	306.26	41.23	83.05	112.25	327.27	1159.41	74.18	121.52
37.5%	91.88	21.75	65.81	39.98	328.13	44.17	88.99	120.27	354.45	1242.23	79.47	135.90
40.0%	98.01	23.20	70.19	42.64	360.01	62.82	94.92	128.29	390.23	1325.05	91.73	144.96
42.5%	104.13	25.16	74.58	45.31	382.51	74.60	104.02	136.31	447.62	1407.86	98.14	159.55
45.0%	110.26	29.90	78.97	47.97	423.01	82.11	110.14	144.32	475.47	1490.68	103.91	172.84
47.5%	116.39	31.56	83.36	55.70	448.88	91.06	116.26	152.34	501.88	1573.49	109.68	182.45
50.0%	124.24	33.23	87.74	70.36	472.51	95.85	122.38	167.82	528.29	1656.31	118.62	192.05
Obligated level (GWh/d)	**485.6**	**340.01**	**542.7**	**0**	**1407.15**	**650.0**	**420.0**	**699.68**	**950.0**	**1670.7**	**445.09**	**610.7**

Hole House Farm		Hornsea		Partington		Avonmouth		Barton Stacey	
Obligated Level		Obligated Level		Obligated Level		Obligated Level		Obligated Level	
5.1%	0.05	6.4%	6.72	7.0%	0.64	8.37%	0.05	8.7%	4.00
10.1%	0.11	12.9%	13.43	14.0%	2.45	16.73%	0.75	17.4%	8.00
15.2%	0.32	19.3%	20.15	20.9%	6.88	25.10%	1.12	26.1%	15.35
20.2%	0.43	25.7%	26.86	27.9%	9.38	33.46%	2.35	34.8%	22.60
25.3%	4.26	32.2%	34.11	34.9%	11.73	41.83%	5.06	43.5%	28.78
30.3%	6.40	38.6%	42.53	41.9%	14.07	50.20%	11.19	52.1%	41.25
35.4%	7.46	45.0%	50.74	48.8%	16.42				
40.5%	8.53	51.5%	57.99	55.8%	19.19				
45.5%	18.71								
50.6%	20.79								
Obligated Level (GWh/d)	296.6	**Obligated Level (GWh/d)**	233.1	**Obligated Level (GWh/d)**	215.0	**Obligated Level (GWh/d)**	179.3	**Obligated Level (GWh/d)**	172.6

Obligated Level	Burton Point	Caythorpe	Dynevor Arms	Glenmavis	Hatfield Moor	Wytch Farm
10%	0.03	4.29	0.17	4.86	0.47	0.001
20%	0.31	8.57	0.35	11.89	0.94	0.002
30%	0.47	12.86	0.89	17.84	1.40	0.004
40%	0.73	17.14	3.20	23.92	1.87	0.005
50%	0.91	21.43	6.01	29.90	2.52	0.006
Obligated Level (GWh/d)	73.5	90.0	49.0	99.0	25.3	3.3

Appendix F IP Annual Yearly Capacity Reserve Prices

Entry Capacity reserve price for the Interconnection Point for the Annual Yearly auctions which will take place in March 2017 for capacity from 1 October 2017 to 30 September 2032 is given below. These prices are also applicable for the Annual Quarterly Capacity auction that takes place in June 2017 for Capacity from 1 October 2017 to 30 September 2018.

ASEP	from 1 Oct 17 Pence per kWh per day
Bacton IP	0.0108

Indicative Exit Capacity reserve prices for the Interconnection Points for use in the Annual Yearly auctions which take place in March 17 for capacity from 1 October 2017 to 30 September 2032 are given below and are the indicative prices which were published in May 2016 for 2017/18. Exit Annual Quarterly Capacity reserve prices for Capacity from 1 October 2017 to 30 September 2018 will be published by 1 May 2017.

Offtake Point	From 1 October 2017 Pence per kWh per day (indicative)
Bacton IUK	0.0001
Bacton BBL	0.0001
Moffat (Irish Interconnector)	0.0001

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