Notice of Gas Transmission Transportation Charges

Effective from 1 April 2018

Issued 30 January 2018

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Introduction

This publication sets out the transportation charges which apply from 1 April 2018 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 via this link **Transportation Statement**.

For more information on the charges set out below, please contact Hayley Burden on 01926 656972 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 **Indicative Notices** and **Final Notices**.

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:

1. Commodity - pence per kilowatt hour (kWh).
2. Exit Capacity - pence per kWh per day.
3. Entry Capacity - pence per kWh per day.
4. 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 .box.xoserve.transmissionbilling@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.

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 the National Grid Capacity Auctions Team on **01926 654057** and via email at capacityauctions@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.

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

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.

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 and at this link.

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

Entry Capacity Substitution (ECS) is 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. A "retainer" as an annual product can be taken out at any ASEP 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**.

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 2017

	Rate p/kWh/day
Entry Weighted Average Price	**0.0127**

Table 4 Entry Capacity Reserve Prices for Capacity for use from 1 October 2017

MSEC Reserve Prices Pence per kWh per day		
Entry Point	Y+1	Y+1
Coastal Terminals & LNG Importation	From 1 Oct 17 to 30 Sep 18	From 1 Oct 18 to 30 Sep 19
Bacton UKCS	0.0109	0.0111
Barrow	0.0014	0.0037
Easington & Rough	0.0140	0.0142
Isle of Grain	0.0094	0.0096
Milford Haven	0.0228	0.0232
St Fergus	0.0488	0.0504
Teesside	0.0110	0.0110
Theddlethorpe	0.0142	0.0142
Onshore Fields and Connections		
Burton Point	0.0001	0.0001
Hatfield Moor	0.0053	0.0055
Hole House Farm	0.0001	0.0001
Wytch Farm	0.0001	0.0001
Storage		
Barton Stacey	0.0001	0.0001
Canonbie	0.0041	0.0044
Caythorpe	0.0135	0.0136
Cheshire	0.0001	0.0001
Dynevor Arms	0.0001	0.0001
Fleetwood	0.0010	0.0010
Garton	0.0159	0.0156
Glenmavis	0.0148	0.0150
Hatfield Moor	0.0053	0.0055
Hornsea	0.0126	0.0128
Partington	0.0001	0.0001
Constrained LNG		
Avonmouth	0.0001	0.0001

DSEC Reserve Prices, Pence per kWh per day	
Entry Point	
Coastal Terminals & LNG Importation	from 1 Oct 17 to 30 Sep 18
Bacton UKCS	0.0073
Barrow	0.0009
Easington&Rough	0.0093
Isle of Grain	0.0063
Milford Haven	0.0152
St Fergus	0.0325
Teesside	0.0073
Theddlethorpe	0.0095
Onshore Fields and Connections	
Burton Point	0.0001
Hatfield Moor	0.0035
Hole House Farm	0.0001
Wytch Farm	0.0001
Storage	
Barton Stacey	0.0001
Canonbie	0.0027
Caythorpe	0.0090
Cheshire	0.0001
Dynevor Arms	0.0001
Fleetwood	0.0007
Garton	0.0106
Glenmavis	0.0099
Hatfield Moor	0.0035
Hornsea	0.0084
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 Pence per registered kWh per day	Credit Rate based on Annual Shipper Storage Space Volume p/kWh
	From 1 Oct 17	
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- **indicative 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 is given in **Table 7**.

Table 7 Weighted Average Capacity Price for PARCA Security Amount from 1 October 2017

	Rate p/kWh/day
Exit Weighted Average Price	**0.0098**

Table 8 NTS TO Exit (Flat) Capacity Charges from 1 October 2017, p/kWh/d

Offtake Point	Type of Offtake	2017/18 Final pence/kWh/day
Bacton	GDN (EA)	0.0001
Brisley	GDN (EA)	0.0008
Cambridge	GDN (EA)	0.0083
Great Wilbraham	GDN (EA)	0.0071
Matching Green	GDN (EA)	0.0120
Peterborough Eye (Tee)	GDN (EA)	0.0071
Roudham Heath	GDN (EA)	0.0027
Royston	GDN (EA)	0.0093
Whitwell	GDN (EA)	0.0116
West Winch	GDN (EA)	0.0036
Yelverton	GDN (EA)	0.0001
Alrewas (EM)	GDN (EM)	0.0173
Blaby	GDN (EM)	0.0131
Blyborough	GDN (EM)	0.0035
Caldecott	GDN (EM)	0.0103
Thornton Curtis (DN)	GDN (EM)	0.0001
Drointon	GDN (EM)	0.0186
Gosberton	GDN (EM)	0.0048
Kirkstead	GDN (EM)	0.0023
Market Harborough	GDN (EM)	0.0116
Silk Willoughby	GDN (EM)	0.0038
Sutton Bridge	GDN (EM)	0.0057
Tur Langton	GDN (EM)	0.0118
Walesby	GDN (EM)	0.0001
Asselby	GDN (NE)	0.0014
Baldersby	GDN (NE)	0.0031
Burley Bank	GDN (NE)	0.0055
Ganstead	GDN (NE)	0.0001
Pannal	GDN (NE)	0.0060
Paull	GDN (NE)	0.0001
Pickering	GDN (NE)	0.0027
Rawcliffe	GDN (NE)	0.0016
Towton	GDN (NE)	0.0040
Bishop Auckland	GDN (NO)	0.0008
Coldstream	GDN (NO)	0.0001
Corbridge	GDN (NO)	0.0015
Cowpen Bewley	GDN (NO)	0.0001
Elton	GDN (NO)	0.0001
Guyzance	GDN (NO)	0.0001
Humbleton	GDN (NO)	0.0001
Keld	GDN (NO)	0.0095
Little Burdon	GDN (NO)	0.0003
Melkinthorpe	GDN (NO)	0.0086

Offtake Point	Type of Offtake	2017/18 Final pence/kWh/day
Saltwick Pressure Controlled	GDN (NO)	0.0001
Saltwick Volumetric Controlled	GDN (NO)	0.0001
Thrintoft	GDN (NO)	0.0023
Towlaw	GDN (NO)	0.0031
Wetheral	GDN (NO)	0.0056
Horndon	GDN (NT)	0.0125
Luxborough Lane	GDN (NT)	0.0128
Peters Green	GDN (NT)	0.0121
Peters Green South Mimms	GDN (NT)	0.0121
Winkfield (NT)	GDN (NT)	0.0224
Audley (NW)	GDN (NW)	0.0228
Blackrod	GDN (NW)	0.0194
Ecclestone	GDN (NW)	0.0267
Holmes Chapel	GDN (NW)	0.0243
Lupton	GDN (NW)	0.0125
Malpas	GDN (NW)	0.0251
Mickle Trafford	GDN (NW)	0.0265
Partington	GDN (NW)	0.0228
Samlesbury	GDN (NW)	0.0177
Warburton	GDN (NW)	0.0225
Weston Point	GDN (NW)	0.0276
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)	0.0001
Kinknockie	GDN (SC)	0.0001
Langholm	GDN (SC)	0.0027
Lauderhill	GDN (SC)	0.0001
Lockerbie	GDN (SC)	0.0016
Netherhowcleugh	GDN (SC)	0.0001
Pitcairngreen	GDN (SC)	0.0001
Soutra	GDN (SC)	0.0001
Stranraer	GDN (SC)	0.0003
Farningham	GDN (SE)	0.0133
Farningham B	GDN (SE)	0.0133
Shorne	GDN (SE)	0.0121
Tatsfield	GDN (SE)	0.0154
Winkfield (SE)	GDN (SE)	0.0224
Braishfield A	GDN (SO)	0.0266

Offtake Point	Type of Offtake	2017/18 Final pence/kWh/day
Braishfield B	GDN (SO)	0.0266
Crawley Down	GDN (SO)	0.0251
Hardwick	GDN (SO)	0.0162
Ipsden	GDN (SO)	0.0200
Ipsden 2	GDN (SO)	0.0200
Mappowder	GDN (SO)	0.0324
Winkfield (SO)	GDN (SO)	0.0224
Aylesbeare	GDN (SW)	0.0355
Cirencester	GDN (SW)	0.0228
Coffinswell	GDN (SW)	0.0386
Easton Grey	GDN (SW)	0.0235
Evesham	GDN (SW)	0.0186
Fiddington	GDN (SW)	0.0178
Ilchester	GDN (SW)	0.0304
Kenn	GDN (SW)	0.0367
Littleton Drew	GDN (SW)	0.0244
Lyneham (Choakford)	GDN (SW)	0.0419
Pucklechurch	GDN (SW)	0.0254
Ross (SW)	GDN (SW)	0.0144
Seabank (DN)	GDN (SW)	0.0277
Alrewas (WM)	GDN (WM)	0.0173
Aspley	GDN (WM)	0.0208
Audley (WM)	GDN (WM)	0.0228
Austrey	GDN (WM)	0.0165
Leamington	GDN (WM)	0.0155
Lower Quinton	GDN (WM)	0.0177
Milwich	GDN (WM)	0.0194
Ross (WM)	GDN (WM)	0.0144
Rugby	GDN (WM)	0.0142
Shustoke	GDN (WM)	0.0179
Stratford-upon-Avon	GDN (WM)	0.0172
Maelor	GDN (WN)	0.0260
Dowlais	GDN (WS)	0.0095
Dyffryn Clydach	GDN (WS)	0.0067
Gilwern	GDN (WS)	0.0109
Air Products	DC	0.0001
Ferny Knoll (AM Paper)	DC	0.0196
Apache	DC	0.0001
Tonna (Baglan Bay)	DC	0.0068
Barking (Horndon)	DC	0.0125
Barrow (Black Start)	DC	0.0083
Billingham ICI (Terra Billingham)	DC	0.0001
Bishop Auckland (test facility)	DC	0.0008
Blackness (BP Grangemouth)	DC	0.0001
Kinneil CHP	DC	0.0001
Saltend BPHP (BP Saltend HP)	DC	0.0001

Offtake Point	Type of Offtake	2017/18 Final pence/kWh/day
Shotwick (Bridgewater Paper)	DC	0.0275
Blyborough (Brigg)	DC	0.0047
Epping Green (Enfield Energy, aka Brimsdown)	DC	0.0131
Brine Field (Teesside) Power Station	DC	0.0001
Pickmere (Winnington Power, aka Brunner Mond)	DC	0.0234
Carrington (Partington) Power Station	DC	0.0228
Centrax Industrial	DC	0.0384
Cockenzie Power Station	DC	0.0001
Burton Point (Connahs Quay)	DC	0.0279
Caldecott (Corby Power Station)	DC	0.0107
Stanford Le Hope (Coryton)	DC	0.0129
Coryton 2 (Thames Haven) Power Station	DC	0.0129
Blyborough (Cottam)	DC	0.0035
Middle Stoke (Damhead Creek, aka Kingsnorth Power Station)	DC	0.0105
Deeside	DC	0.0280
Didcot PS	DC	0.0204
Drakelow Power Station	DC	0.0167
Enron Billingham	DC	0.0001
Fordoun CNG Station	DC	0.0001
Glasgoforest	DC	0.0001
Goole (Guardian Glass)	DC	0.0020
Grain Power Station	DC	0.0105
Bacton (Great Yarmouth)	DC	0.0001
Hatfield Power Station	DC	0.0016
Hollingsgreen (Hays Chemicals)	DC	0.0241
Weston Point (Castner Kelner, aka ICI Runcorn)	DC	0.0276
Thornton Curtis (Humber Refinery, aka Immingham)	DC	0.0001
Eastoft (Keadby Blackstart)	DC	0.0034
Eastoft (Keadby)	DC	0.0034
Shellstar (aka Kemira, not Kemira CHP)	DC	0.0272
Saddle Bow (Kings Lynn)	DC	0.0035
Langage Power Station	DC	0.0419
St. Neots (Little Barford)	DC	0.0117
Gowkhall (Longannet)	DC	0.0001
Marchwood Power Station	DC	0.0269
Medway (aka Isle of Grain Power Station, NOT Grain Power)	DC	0.0106
Upper Neeston (Milford Haven Refinery)	DC	0.0001
Palm Paper	DC	0.0035
Blackbridge (Pembroke PS)	DC	0.0001
Peterborough (Peterborough Power Station)	DC	0.0075

Offtake Point	Type of Offtake	2017/18 Final pence/kWh/day
St. Fergus (Peterhead)	DC	0.0001
Phillips Petroleum, Teeside	DC	0.0001
Weston Point (Rocksavage)	DC	0.0276
Roosecote (Roosecote Power Station)	DC	0.0083
Ryehouse	DC	0.0136
Rosehill (Saltend Power Station)	DC	0.0001
Sandy Lane (Blackburn CHP, aka Sappi Paper Mill)	DC	0.0182
Seabank (Seabank Power Station phase II)	DC	0.0275
Abson (Seabank Power Station phase I)	DC	0.0254
Seal Sands TGPP	DC	0.0001
Sellafield Power Station	DC	0.0131
Terra Nitrogen (aka ICI, Terra Severnside)	DC	0.0274
Harwarden (Shotton, aka Shotton Paper)	DC	0.0278
Wragg Marsh (Spalding)	DC	0.0052
Spalding 2 (South Holland) Power Station	DC	0.0052
St. Fergus (Shell Blackstart)	DC	0.0001
St. Fergus Segal	DC	0.0001
Stallingborough (phase 1 and 2)	DC	0.0001
Staythorpe PH1 and PH2	DC	0.0070
Sutton Bridge Power Station	DC	0.0055
Teesside (BASF, aka BASF Teesside)	DC	0.0001
Teesside Hydrogen	DC	0.0001
Thornton Curtis (Killingholme)	DC	0.0001
Tilbury Power Station	DC	0.0124
Trafford PS	DC	0.0228
West Burton PS	DC	0.0036
Willington Power Station	DC	0.0184
Wyre Power Station	DC	0.0169
Zeneca (ICI Avecia, aka 'Zenica')	DC	0.0001
Avonmouth Max Refill	STORAGE SITE	0.0275
Bacton (Baird)	STORAGE SITE	0.0001
Deborah Storage (Bacton)	STORAGE SITE	0.0001
Barrow (Bains)	STORAGE SITE	0.0083
Barrow (Gateway)	STORAGE SITE	0.0083
Barton Stacey Max Refill (Humbly Grove)	STORAGE SITE	0.0248
Caythorpe	STORAGE SITE	0.0001
Cheshire (Holford)	STORAGE SITE	0.0234
Dynevor Max Refill	STORAGE SITE	0.0089
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	0.0025
Hole House Max Refill	STORAGE SITE	0.0240
Hornsea Max Refill	STORAGE SITE	0.0001
Partington Max Refill	STORAGE SITE	0.0228

Offtake Point	Type of Offtake	2017/18 Final pence/kWh/day
Stublach (Cheshire)	STORAGE SITE	0.0234
Saltfleetby Storage (Theddlethorpe)	STORAGE SITE	0.0001
Hill Top Farm (Hole House Farm)	STORAGE SITE	0.0240

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 and Entry Annual Quarterly Capacity

NTS IP Entry Annual Yearly auctions take place in July and the Entry Annual Quarterly Capacity auctions take place in on the first Mondays of August, November, February and May. The Reserve prices are given in **Table 9**.

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 and Annual Quarterly Auctions	
Interconnector Points (IPs)	1 Oct 17 to 30 Sep 18
Bacton IP	0.0108

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 10**.

Table 10 Reserve Prices Interconnection Points (IPs) for the Entry Rolling Monthly auctions, Pence per kWh per day

Reserve Prices, IPs for Entry Rolling Monthly Auctions	
Interconnector Points (IPs)	1 Oct 17 to 30 Sep 18
Bacton IP	0.0109
Moffat Interconnector[1]	0.0077

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

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 11**.

Table 11 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 17 to 30 Sep 18
Bacton IP	0.0073
Moffat Interconnector	0.0051

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.

Invoice Codes IP Entry Capacity

IPY	IP LONG TERM FIRM	NTE
IPQ	IP QUARTERLY FIRM	NTE
IPM	IP MONTHLY FIRM	NTE
IPD	IP DAILY FIRM	NTE
IPI	IP DAILY INTERRUPTIBLE	NTE

Exit Interconnection Point (IP) Auctions

NTS IP Exit Annual Yearly and Exit Annual Quarterly Capacity

The IP Exit Annual Yearly auctions take place in July and Exit Annual Quarterly auctions take place on the first Monday of August, November, February and May for Capacity from the following October to September. The final Reserve Prices for IP Exit Annual Yearly and Annual Quarterly Auction for 2017/18 were produced in May 2017 and are given in **Table 12**. Reserve Prices for IP Exit Annual Quarterly Auction are given in **Table 13**.

Table 12 Reserve Prices, Interconnection Points (IPs) for the Annual Yearly auctions, Pence per kWh per day

Reserve Prices, Interconnection Points (IPs) for the Exit Annual Yearly and Auctions	
Interconnector Points (IPs)	1 Oct 17 to 30 Sep 18
Bacton IUK	0.0001
Bacton BBL	0.0001
Moffat Interconnector	0.0003

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

Reserve Prices, Interconnection Points (IPs) for the Exit Annual Quarterly Auctions	
Interconnector Points (IPs)	1 Oct 17 to 30 Sep 18
Bacton IUK	0.0001
Bacton BBL	0.0001
Moffat Interconnector	0.0003

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

Prices are produced at the same time as the NTS Exit Capacity charges.

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 17 to 30 Sep 18
Bacton IUK	0.0001
Bacton BBL	0.0001
Moffat Interconnector	0.0003

Details of Exit Capacity applications and auctions can be obtained from National Grid Capacity Auctions on 01926 654058 and via email at capcityauctions@nationalgrid.com.

Invoice Codes IP Exit Capacity

Service	Invoice	Charge Code
Annual Firm	NXC	EIL
Rolling Monthly	NXC	EIR
Daily	NXC	EID

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	0.0434
SO Entry	0.0101
Combined Entry Rate	0.0535

Invoice	Charge Code
COM	NCO

	Pence per kWh
TO Exit	0.0202
SO Exit	0.0101
Combined Exit Rate	0.0303

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
COM	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 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 North Sea Midstream Partners (NSMP) 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
CPN	900

	Pence per kWh
Compression	0.0117

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 2018/19 are shown in **Table 18** DN Pension Deficit Charge below.

Table 18 DN Pension Deficit Charge

Invoice	Charge Code
DNP	N23

DN	Monthly Charge, £	Per Annum, £m
East of England	611,672	7.34
London	356,597	4.28
North West	420,049	5.04
West Midlands	303,298	3.64
North of England	599,332	7.19
Scotland	413,871	4.97
South of England	958,541	11.50
Wales and the West	573,953	6.89

Metering Charges

Table 19 below shows a schedule of National Grid NTS's metering charges to apply from 1 April 2018. 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	£14,921.78	£15,832.68	£17,906.98	£18,637.78	£20,460.76	£26,428.28
Pence per day Maintenance	4,088.1593	4,337.7211	4,906.0221	5,106.2411	5,605.6870	7,240.6240

Rotary and Turbine meters

Capacity (scmh)	Rotary >=792<1,358	Turbine <283
£ per annum Maintenance	£374.81	£901.45
Pence per day Maintenance	102.6873	246.9724

Volume converters (Correctors)

	Pence per day	£ per annum
Provision	48.4268	£176.76
Installation	19.5214	£71.25
Maintenance	44.0002	£160.60

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	12.0454	£43.97
Installation	53.7368	£196.14
Maintenance	81.2842	£296.69

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

Connected System Exit Points (CSEPs)

Please note that CSEP administration charge (Previously 0.0755 pence per day, £0.28 per annum) ceased to apply on 1 June 2017 at the implementation of Xoserve's UKLink replacement (Project Nexus).

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 20.** Individual charges depend on the type of allocation service nominated and whether the site is telemetered or non-telemetered.

Table 20 Shared Supply Meter Point Administration Charges (£ per shipper per supply point)

Invoice	Charge Code
CAZ	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 21** 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 21 Allocation Charges at Interconnectors

Invoice	Charge Code
CAZ	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 22** below.

Table 22 Administration Charges for Moffat

Invoice	Charge Code
CAZ	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.

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 23 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 23 and **Table 24** show Entry Capacity Substitution and Legacy TO Entry Capacity, respectively.

Table 23 Licence Baseline Entry Capacity (GWh/day) after 1 November 2015

NTS Entry Point	Type of Entry	Baseline Capacity 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

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

NTS Entry Point	Type of Entry	Baseline Capacity GWh/d
Partington	Storage Site	215.0
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 24 Entry Capacity Substitution

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

Table 25 Legacy TO Entry Capacity

NTS Entry Point	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 2018

Below are the Entry Capacity reserve prices together with the price steps for each level of incremental Capacity for use in the March 2018 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	0.0090	0.0037	0.0001	0.0030	0.0142	0.0001	0.0125	0.0071	0.0226	0.0514	0.0093	0.0126
2.5%	0.0091	0.0038	0.0002	0.0031	0.0143	0.0017	0.0126	0.0072	0.0227	0.0523	0.0094	0.0127
5.0%	0.0092	0.0044	0.0029	0.0032	0.0144	0.0029	0.0127	0.0073	0.0228	0.0530	0.0095	0.0128
7.5%	0.0095	0.0045	0.0044	0.0033	0.0145	0.0030	0.0128	0.0074	0.0229	0.0539	0.0096	0.0129
10.0%	0.0096	0.0046	0.0052	0.0034	0.0157	0.0031	0.0129	0.0076	0.0232	0.0541	0.0097	0.0130
12.5%	0.0097	0.0047	0.0053	0.0035	0.0158	0.0050	0.0130	0.0077	0.0233	0.0567	0.0098	0.0131
15.0%	0.0098	0.0048	0.0054	0.0036	0.0159	0.0051	0.0131	0.0078	0.0234	0.0570	0.0099	0.0134
17.5%	0.0099	0.0060	0.0055	0.0042	0.0164	0.0052	0.0132	0.0079	0.0237	0.0571	0.0100	0.0141
20.0%	0.0100	0.0061	0.0056	0.0049	0.0165	0.0053	0.0133	0.0080	0.0238	0.0572	0.0101	0.0142
22.5%	0.0101	0.0062	0.0057	0.0055	0.0173	0.0055	0.0134	0.0082	0.0239	0.0573	0.0110	0.0154
25.0%	0.0102	0.0072	0.0058	0.0059	0.0174	0.0057	0.0135	0.0083	0.0240	0.0574	0.0112	0.0165
27.5%	0.0103	0.0073	0.0059	0.0060	0.0175	0.0058	0.0136	0.0084	0.0241	0.0575	0.0118	0.0167
30.0%	0.0104	0.0074	0.0060	0.0061	0.0176	0.0059	0.0137	0.0085	0.0250	0.0576	0.0121	0.0168
32.5%	0.0105	0.0075	0.0061	0.0062	0.0177	0.0060	0.0138	0.0086	0.0251	0.0577	0.0122	0.0169
35.0%	0.0106	0.0076	0.0062	0.0063	0.0178	0.0061	0.0139	0.0087	0.0252	0.0578	0.0123	0.0170
37.5%	0.0107	0.0077	0.0063	0.0064	0.0180	0.0067	0.0140	0.0088	0.0256	0.0579	0.0124	0.0171
40.0%	0.0108	0.0094	0.0069	0.0065	0.0181	0.0068	0.0141	0.0096	0.0259	0.0580	0.0125	0.0172
42.5%	0.0109	0.0095	0.0070	0.0089	0.0192	0.0069	0.0142	0.0097	0.0262	0.0581	0.0151	0.0173
45.0%	0.0110	0.0096	0.0071	0.0090	0.0193	0.0074	0.0143	0.0098	0.0284	0.0582	0.0152	0.0174
47.5%	0.0111	0.0097	0.0072	0.0091	0.0195	0.0075	0.0144	0.0102	0.0285	0.0583	0.0153	0.0175
50.0%	0.0115	0.0098	0.0073	0.0092	0.0197	0.0076	0.0145	0.0103	0.0286	0.0584	0.0154	0.0176
Obligated Level (GWh/d)	485.6	340.01	542.7	0	1407.15	350	420	699.68	950	1670.7	445.09	610.7

Hole House Farm		Hornsea		Partington		Avonmouth		Barton Stacey	
Obligated Level	0.0001	Obligated Level	0.0138	Obligated Level	0.0001	Obligated Level	0.0001	Obligated Level	0.0001
5.1%	0.0002	6.4%	0.0139	7.0%	0.0002	8.4%	0.0002	8.7%	0.0002
10.1%	0.0003	12.9%	0.0140	14.0%	0.0004	16.7%	0.0003	17.4%	0.0004
15.2%	0.0004	19.3%	0.0141	20.9%	0.0005	25.1%	0.0004	26.1%	0.0005
20.2%	0.0006	25.7%	0.0142	27.9%	0.0006	33.5%	0.0005	34.8%	0.0006
25.3%	0.0009	32.2%	0.0143	34.9%	0.0007	41.8%	0.0006	43.5%	0.0007
30.3%	0.0015	38.6%	0.0144	41.9%	0.0008	50.2%	0.0007	52.1%	0.0010
35.4%	0.0016	45.0%	0.0145	48.8%	0.0009				
40.5%	0.0034	51.5%	0.0146	55.8%	0.0010				
45.5%	0.0053								
50.6%	0.0054								
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	0.0116	0.0087	0.0133	0.0032	0.0001
10%	0.0002	0.0117	0.0088	0.0148	0.0033	0.0002
20%	0.0003	0.0127	0.0089	0.0182	0.0034	0.0003
30%	0.0004	0.0128	0.0090	0.0187	0.0035	0.0004
40%	0.0005	0.0139	0.0091	0.0189	0.0036	0.0005
50%	0.0006	0.0140	0.0092	0.0192	0.0037	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%	3.88	1.12	0.05	1.60	17.75	0.98	4.66	4.41	19.07	77.62	3.68	6.84
5.0%	7.77	2.66	2.80	3.20	35.50	3.35	9.33	8.83	38.15	157.32	7.35	13.67
7.5%	12.29	3.99	6.36	5.12	53.25	5.02	13.99	13.24	57.22	239.99	11.27	20.51
10.0%	16.57	5.32	10.03	6.82	78.50	6.70	18.66	18.90	78.32	321.17	15.03	27.78
12.5%	20.71	6.65	12.54	8.53	98.13	14.44	23.32	23.93	97.90	420.76	18.78	34.72
15.0%	24.85	7.97	15.04	10.23	119.25	17.32	27.98	28.72	117.47	507.58	22.54	43.62
17.5%	28.99	12.69	17.55	15.67	143.50	20.21	32.65	33.50	140.01	593.21	26.29	53.55
20.0%	33.13	14.50	20.06	20.89	165.00	23.56	37.31	38.29	160.01	677.96	30.05	61.20
22.5%	37.27	16.31	23.00	26.38	194.63	28.58	41.97	45.87	180.01	764.04	39.14	75.19
25.0%	43.57	21.75	26.03	31.45	217.50	32.91	46.64	50.97	200.01	848.93	44.28	89.51
27.5%	47.93	23.92	28.64	34.59	239.26	36.20	51.30	56.06	223.72	935.46	51.32	99.66
30.0%	52.28	26.10	34.13	38.38	261.01	39.50	55.97	61.16	253.18	1020.50	57.41	108.72
32.5%	56.64	28.27	36.98	42.96	282.76	42.79	60.63	66.26	274.27	1105.54	62.71	118.48
35.0%	61.00	30.45	39.82	46.27	309.76	46.89	65.29	71.35	295.37	1190.58	67.53	127.60
37.5%	65.35	32.62	43.39	49.57	337.51	58.03	71.08	81.11	324.07	1275.62	72.36	136.71
40.0%	69.71	45.43	53.22	52.87	360.01	61.90	82.98	95.47	349.72	1363.04	79.08	145.83
42.5%	74.07	48.27	56.55	80.64	408.01	65.77	88.80	101.44	375.88	1450.75	101.50	154.94
45.0%	81.53	51.11	59.88	85.39	432.01	76.91	94.02	107.40	431.41	1536.09	107.47	164.05
47.5%	86.06	53.95	63.20	90.13	463.13	81.19	99.25	120.46	455.38	1621.43	113.44	173.17
50.0%	99.22	56.78	66.53	94.87	492.51	86.61	104.47	126.80	482.72	1706.77	119.41	182.28
Obligated level (GWh/d)	**485.6**	**340.01**	**542.7**	**0**	**1407.15**	**350.0**	**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%	7.36	7.0%	0.05	8.37%	0.11	8.7%	0.11
10.1%	0.11	12.9%	14.71	14.0%	0.43	16.73%	0.21	17.4%	0.43
15.2%	0.16	19.3%	22.07	20.9%	0.64	25.10%	0.32	26.1%	0.64
20.2%	1.28	25.7%	29.64	27.9%	0.85	33.46%	0.43	34.8%	0.85
25.3%	2.40	32.2%	37.04	34.9%	1.07	41.83%	0.53	43.5%	1.07
30.3%	4.80	38.6%	44.45	41.9%	1.28	50.20%	2.24	52.1%	3.20
35.4%	5.60	45.0%	51.86	48.8%	1.49				
40.5%	14.50	51.5%	59.27	55.8%	1.71				
45.5%	25.42								
50.6%	28.25								
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	3.71	1.52	5.21	0.29	0.001
20%	0.05	8.12	3.03	12.81	0.58	0.002
30%	0.08	12.28	4.54	19.74	0.86	0.004
40%	0.10	17.78	6.06	26.60	1.15	0.005
50%	0.13	22.23	7.57	33.77	1.62	0.006
Obligated Level (GWh/d)	73.5	90.0	49.0	99.0	25.3	3.3

Appendix F IP Annual Yearly Capacity Indicative Reserve Prices

Entry Capacity reserve price for the Interconnection Point for the Annual Yearly auctions which will take place in July 2018 for capacity from 1 October 2018 to 30 September 2033 is given below. These prices are also applicable for the Annual Quarterly Capacity auction that takes place in August 2018 for Capacity from 1 October 2018 to 30 September 2019.

ASEP	from 1 October 2018 Pence per kWh per day
Bacton IP	0.0089

Indicative Exit Capacity reserve prices for the Interconnection Points for use in the Annual Yearly auctions which take place in July 2018 for capacity from 1 October 2018 to 30 September 2033 are given below and are the indicative prices which were published on 27 April 2017 for 2018/19. Final Exit Annual Quarterly Capacity reserve prices for Capacity from 1 October 2018 to 30 September 2019 will be published by 1 May 2018.

Offtake Point	From 1 October 2018 Pence per kWh per day (indicative)
Bacton IUK	0.0001
Bacton BBL	0.0001
Moffat (Irish Interconnector)	0.0001

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