

The Statement of Gas Transmission Transportation Charges

Effective from 1 April 2008

Updated Table 2 and Appendix D, 15 July 2008

National Grid's Gas Transmission System



Contents

	Page No
1 INTRODUCTION	4
2 SYSTEM ENTRY CAPACITY	6
3 CONSTRAINED LNG.....	10
4 NTS TO EXIT CAPACITY CHARGES	10
5 NTS COMMODITY CHARGES	14
6 COMPRESSION CHARGE	15
7 DN PENSIONS DEFICIT CHARGE.....	15
8 SYSTEM BALANCING CHARGE	15
9 OTHER CHARGES	15
10 APPENDIX A ESTIMATION OF PEAK DAILY LOAD FOR NON-DAILY METERED SUPPLY POINTS..	18
11 APPENDIX B INITIAL NTS SO BASELINE OBLIGATED ENTRY CAPACITY	21
12 APPENDIX C(I) AMSEC ENTRY CAPACITY	22
13 APPENDIX C(II) QSEC ENTRY CAPACITY	23
14 APPENDIX D QSEC STEP PRICES	24
15 APPENDIX E ESTIMATED PROJECT VALUES.....	27

1 Introduction

This publication sets out the transportation charges which apply from 1 April 2008 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 **The Statement of the Gas Transmission Transportation Charging Methodology**.

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, along with **The Statement of the Gas Transmission Transportation Charging Methodology** can be found on our web site.

For more information on the charges set out below, please contact our UK Transmission Charging team on **01926 654633** or e-mail to charging.enquiries@uk.ngrid.com

1.1 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 definitive 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. Reference should be made to the UNC – as modified from time to time – for details of such charges and liabilities.

1.2 Units

Charges are expressed and billed as follows:

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

1.3 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.

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

1.4 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. These formulae dictate 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 is made in the following year. Where a significant over- or under-recovery is anticipated within a year an adjustment to charges may be made during the year.

Since April 2002 the price control for the NTS has been 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 and 50% from entry capacity. Exit capacity charges reflect the estimated long run marginal cost (LRMC) of developing the system to meet a sustained increase in demand and are determined by the exit zone to which a particular offtake point belongs. Charges for entry capacity are not fixed but are determined by auctions which apply to all system

entry points. For entry capacity, the reserve prices for the auctions are based on the GCM01 Methodology for the Determination of NTS Entry and Exit Capacity Prices, which uses a gas Transportation Model. For further details of GCM01 please see our web site at www.nationalgrid.com/uk/gas under Charging, Pricing Consultations.

The unpredictability of entry auction revenue means that the TO revenue 50 / 50 split between entry and exit may not be achieved in practice. In the event of a forecast under-recovery of entry auction revenue against the entry target level, a TO commodity charge may be levied on entry flows.

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.

1.5 DN Pensions Deficit

The DN Pensions Deficit charge is levied on the Distribution Network 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 for the period April 2007 to March 2012. 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 GT Licence and the DN Gas Transporters Licence. The charges can be found in Section 7.

1.6 Firm Transportation

Firm transportation charges for the NTS comprise capacity and commodity charges.

1.7 Interruptible Transportation

Interruptible transportation is available for supply points with Annual Quantities (AQs) of over 5,860 MWh per annum.

For supply points which have been nominated by a shipper as interruptible, the shipper will not pay the NTS (TO) exit capacity charge. Where National Grid NTS nominates a supply point to be interrupted for more than 15 days in a particular year (measured from 1 April to 31 March) there is a transportation charge credit. For each day of interruption over 15 days, a transportation charge credit, equivalent to 1/15 of the annual NTS exit capacity is payable to the shipper. National Grid NTS has the right to interrupt these supply points for up to 45 days each year. The business rules for interruptible supply points are detailed in **The Statement of the Gas Transmission Transportation Charging Methodology**.

To help National Grid NTS run the network safely and securely the UNC defines two special types of interruptible supply points. These are Network Sensitive Load (NSL) and Transporter Nominated Interruptible (TNI).

NSLs are supply points where specific interruption may be required to maintain the supply of gas to firm supply points in the same area.

TNIs are supply points where National Grid NTS reserves the right to interrupt for more than 45 days each year.

National Grid NTS offers allocation arrangements to allow more than one shipper / supplier to supply interruptible gas to sites with AQs in excess of 58,600 MWh per annum. This flexibility of supplier enables the end user to make greater use of the competitive market and allows for alternative provision of gas during commercial interruption. Further details of this service are given in Section 9.2.

Details of NTS interruption services are available from Paul Youngman, Network Operations, on **01926-654151**.

1.8 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 NTS's charges reflect these requirements, with National Grid NTS remaining cash neutral in the process.

2 System 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 on 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 please refer to The Statement of the Gas Transmission Charging Methodology.

2.1 Quarterly System Entry Capacity

Entry capacity can be obtained through the Quarterly System Entry Capacity (QSEC) auction process up to 16 years ahead of the intended year of use. National Grid NTS has an obligation to make available a core baseline quantity which is calculated in accordance with Special Condition C8D of National Grid NTS's GT Licence. The baseline quantity from which National Grid NTS's obligation is derived is set out in Appendix B. The minimum quantities to be offered in the Annual System Entry Capacity auctions, after taking into account a GT Licence requirement to hold back some capacity for short term allocation, is detailed in Appendix C(ii).

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 Statement of the Gas Transmission Transportation Charging Methodology. The step prices that are applicable for QSEC allocations are set out in Appendix D. Prices are published for each system entry point and are applicable for all periods in which QSEC is offered. Appendix E provides estimated project value of each capacity increment. Allocation of capacity will be conducted in accordance with the provisions set out in National Grid NTS's Incremental Entry Capacity Release (IECR) statement.

2.2 Monthly System Entry Capacity

For each of the system entry points Monthly System Entry Capacity (MSEC) is allocated by auction for a period no more than two years ahead of the period of use. The maximum quantities to be offered in MSEC allocations are also set out in Appendix C(i). 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.

Following the final annual MSEC auction in which capacity is offered for a capacity year, any remaining quantities of entry capacity may be bought in a series of Rolling Monthly System Entry Capacity (RMSEC) auctions. RMSEC auctions can be conducted within a capacity year. The quantities to be offered will be any unsold baseline capacity that is carried over from the annual MSEC allocations. Each allocation will be conducted on one of 5 business days proceeding the last business day in a calendar month. The capacity offered in that allocation will be specific to the succeeding month only. As with annual MSEC the allocation is conducted on a pay as bid basis.

The lowest price that can be accepted in an MSEC allocation is the reserve price as set out in Table 2 in Section 2.4.

2.3 Daily System Entry Capacity

National Grid NTS offers two daily capacity services – a firm Daily System Entry Capacity service (DSEC) and a Daily Interruptible System Entry Capacity service (DISEC). Both services are offered through a

tender 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 presently defined in the UNC as the amount, determined by National Grid NTS, by which system entry capacity exceeds firm system entry capacity held by shippers.

DISEC is allocated by means of a single tender 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 booked monthly 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, on a day, nominations from primary holders of firm capacity increase so that gas flow exceeds booked levels at an entry point, any DISEC service entitlements would be scaled back.

2.4 Entry Capacity Reserve Prices

To date all system entry capacity auctions have been subject to reserve prices.

The invoice codes and reserve prices applicable to MSEC and DSEC sold before the day are shown in Table 1 and Table 2, respectively. For DSEC sold on the day the reserve price has been set to zero since 1 October 2003. Reserve prices for DISEC are set at zero.

Table 1

Service	Invoice	Charge Code
MSEC	NTE	LTF
DSEC	NTE	DFC
DISEC	NTE	DIC

Table 2 Entry Capacity Reserve Prices for Capacity for use from 1 October 2007

	MSEC Reserve Prices		
	Pence per kWh per day		
Entry Point	Y	Y+1	Y+2
	from 1 Oct 08 to 30 Sep 09	from 1 Oct 09 to 30 Sep 10	from 1 Oct 10 to 31 Mar 11
Coastal Terminals & LNG Importation			
Bacton	0.0072	0.0083	0.0084
Barrow	0.0066	0.0047	0.0070
Easington&Rough	0.0086	0.0095	0.0092
Isle of Grain	0.0001	0.0001	0.0006
Milford Haven	0.0181	0.0188	0.0172
St Fergus	0.0367	0.0376	0.0378
Teesside	0.0082	0.0073	0.0083
Theddlethorpe	0.0074	0.0084	0.0082
Onshore Fields and Connections			
Burton Point	0.0001	0.0001	0.0001
Hatfield Moor	0.0027	0.0030	0.0028
Hole House Farm	0.0001	0.0001	0.0001
Wytch Farm	0.0001	0.0001	0.0001
Storage			
Barton Stacey	0.0001	0.0001	0.0001
Cheshire	0.0001	0.0001	0.0001
Fleetwood	0.0001	0.0001	0.0052
Garton	0.0091	0.0095	0.0100
Glenmavis	0.0173	0.0153	0.0172
Hatfield Moor	0.0027	0.0030	0.0028
Hornsea	0.0088	0.0089	0.0090
Partington	0.0001	0.0001	0.0001
Constrained LNG			
Avonmouth	0.0001	0.0001	0.0001
Dynevor Arms	0.0001	0.0001	0.0001

Table 2 continued

Reserve Prices		
Pence per kWh per day		
Entry Point	DSEC	
	from 1 Oct 07 to 30 Sep 08	from 1 Oct 08 to 30 Sep 09
Coastal Terminals & LNG Importation		
Bacton	0.0040	0.0048
Barrow	0.0053	0.0044
Easington&Rough	0.0050	0.0057
Isle of Grain	0.0001	0.0001
Milford Haven	0.0101	0.0121
St Fergus	0.0249	0.0245
Teesside	0.0061	0.0055
Theddlethorpe	0.0042	0.0049
Onshore Fields and Connections		
Burton Point	0.0001	0.0001
Hatfield Moor	0.0015	0.0018
Hole House Farm	0.0001	0.0001
Wytch Farm	0.0001	0.0001
Storage		
Barton Stacey	0.0001	0.0001
Cheshire	0.0001	0.0001
Fleetwood	0.0001	0.0001
Garton	0.0063	0.0061
Glenmavis	0.0119	0.0115
Hatfield Moor	0.0015	0.0018
Hornsea	0.0052	0.0059
Partington	0.0001	0.0001
Constrained LNG		
Avonmouth	0.0001	0.0001
Dynevor Arms	0.0001	0.0001

3 Constrained LNG

Shippers that book the constrained Liquefied Natural Gas (LNG) storage service, available from the LNG storage sites at Dynevor Arms and 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 3, is deducted from the charge for the storage service.

Table 3 Constrained LNG Credit

Entry Point	Credit	
	Pence per registered kWh per day	
	From 1 May 2007	From 1 May 2008
Avonmouth LNG	0.0026	0.0032
Dynevor Arms LNG	0.0000	0.0000

4 NTS TO Exit Capacity Charges

NTS TO exit capacity charges apply to loads supplied through existing NTS offtakes into Distribution Networks (DNs) and to large loads and interconnectors supplied directly from the NTS. The exit zone for a DN supply point is determined by its postcode.

For new loads supplied directly from the NTS, the exit zone charges provide an indication of the likely level of charges. However, in general, an individual exit zone will be created with its own charge for new NTS offtakes.

At present, National Grid NTS makes no charge for NTS exit capacity at storage points. This is on the basis that the transportation service to the storage points is interruptible. If a firm transportation service to storage were provided, a TO exit capacity charge would be payable.

There are four small towns in Scotland where LNG needs to be transported by road tanker to supply end users on distribution systems which are not physically connected to the main gas network. For these locations, NTS TO exit charges will be calculated on the basis that they are allocated to exit zone SC4, the location of the LNG storage site which supplies them.

The map at the beginning of this document gives the locations of the exit zones. Exit zones SC3, EA5, EA6 and EA7 have no offtakes.

The NTS TO Exit Capacity charges are given in Table 4.

Table 4 NTS TO Exit Capacity Charges

Invoice	Charge Codes
CAP	NDX (DM) / NNX (NDM)

Network	Exit Zone	Exit Charge p/pdkWh/day		
		Effective from 1 Oct 07 to 30 Sep 08	Indicative	
			from 1 Oct 08 to 30 Sep 09	from 1 Oct 09 to 30 Sep10
East of England	EA1	0.0051	0.0108	0.0104
	EA2	0.0066	0.0133	0.0127
	EA3	0.0022	0.0089	0.0085
	EA4	0.0119	0.0180	0.0175
	EM1	0.0001	0.0030	0.0025
	EM2	0.0039	0.0079	0.0042
	EM3	0.0133	0.0174	0.0166
	EM4	0.0094	0.0131	0.0127
North of England	NE1	0.0019	0.0065	0.0080
	NE2	0.0001	0.0022	0.0018
	NE3	0.0001	0.0021	0.0017
	NO1	0.0001	0.0011	0.0041
	NO2	0.0001	0.0004	0.0041
London	NT1	0.0192	0.0230	0.0225
	NT2	0.0119	0.0186	0.0181
	NT3	0.0113	0.0180	0.0176
North West	NW1	0.0048	0.0096	0.0134
	NW2	0.0096	0.0144	0.0183
Scotland	SC1	0.0001	0.0001	0.0001
	SC2	0.0001	0.0001	0.0001
	SC4	0.0001	0.0001	0.0001
South of England	SE1	0.0143	0.0210	0.0205
	SE2	0.0192	0.0230	0.0225
	SO1	0.0145	0.0182	0.0177
	SO2	0.0218	0.0242	0.0237
Wales & the West	SW1	0.0144	0.0101	0.0097
	SW2	0.0205	0.0161	0.0169
	SW3	0.0292	0.0248	0.0242
	WA1	0.0135	0.0182	0.0212
	WA2	0.0084	0.0040	0.0035
West Midlands	WM1	0.0125	0.0173	0.0198
	WM2	0.0142	0.0179	0.0174
	WM3	0.0126	0.0132	0.0128

Table 4 NTS TO Exit Capacity Charges continued

Invoice	Charge Codes
CAP	NDX (DM) / NNX (NDM)

NTS Sites	Exit Charge p/pdkWh/day		
	Effective	Indicative	
		from 1 Oct 07	from 1 Oct 08
AM Paper	0.0085	0.0133	0.0171
Baglan Bay PG	0.0063	0.0019	0.0015
Barking PG	0.0117	0.0184	0.0179
BP Grangemouth	0.0001	0.0001	0.0001
BP Saltend HP	0.0001	0.0021	0.0017
Bridgewater Paper	0.0118	0.0165	0.0204
Brigg PG	0.0037	0.0077	0.0032
Brimsgate PG	0.0128	0.0194	0.0190
Brunner Mond	0.0089	0.0137	0.0176
Connahs Quay PS	0.0114	0.0161	0.0200
Corby PS	0.0093	0.0130	0.0126
Coryton PG	0.0119	0.0186	0.0181
Cottam PG	0.0037	0.0077	0.0032
Damhead Creek	0.0114	0.0181	0.0176
Deeside PS	0.0117	0.0165	0.0203
Didcot PS	0.0177	0.0214	0.0209
Goole Glass	0.0013	0.0052	0.0053
Great Yarmouth	0.0002	0.0068	0.0064
Hays Chemicals	0.0103	0.0150	0.0189
ICI Runcorn	0.0133	0.0181	0.0220
Immingham PG	0.0001	0.0030	0.0025
Keadby PS	0.0023	0.0062	0.0051
Kemira Ince CHP	0.0130	0.0178	0.0216
Kings Lynn PS	0.0051	0.0118	0.0114
Little Barford PS	0.0110	0.0148	0.0144
Longannet	0.0001	0.0001	0.0001
Medway PS	0.0113	0.0180	0.0175
Peterborough PS	0.0069	0.0109	0.0104
Peterhead PG	0.0001	0.0001	0.0001
Phillips Seal Sands	0.0001	0.0009	0.0062
Rocksavage PG	0.0133	0.0181	0.0220
Roosecote PS	0.0001	0.0020	0.0058
Rye House PS	0.0134	0.0201	0.0196
Saltend	0.0001	0.0024	0.0019
Sappi Paper Mill	0.0052	0.0100	0.0139
Seabank PG	0.0191	0.0147	0.0175
Sellafield PS	0.0001	0.0002	0.0040
Shotton Paper	0.0125	0.0173	0.0211
Spalding PG	0.0052	0.0089	0.0085
Stallingborough PS	0.0001	0.0038	0.0034
Staythorpe	0.0017	0.0054	0.0049
Sutton Bridge PS	0.0063	0.0104	0.0100
Teesside BASF	0.0001	0.0009	0.0062
Teesside Hydrogen	0.0001	0.0009	0.0062
Teesside PS	0.0001	0.0009	0.0062
Terra Billingham	0.0001	0.0015	0.0068
Terra Severnside	0.0191	0.0148	0.0174
Thornton Curtis PG	0.0001	0.0030	0.0026
Zeneca	0.0001	0.0009	0.0062

Table 4 NTS TO Exit Capacity Charges continued

Interconnectors	Exit Charge p/pdkWh/day		
	Effective from 1 Oct 07	Indicative	
		from 1 Oct 08	from 1 Oct 09
Bacton Interconnector	0.0002	0.0068	0.0064
Moffat/Moffat PS	0.0001	0.0001	0.0001

Storage Sites			
Avonmouth LNG	0.0191	0.0147	0.0175
Barton Stacey	0.0211	0.0248	0.0243
Dynevor Arms LNG	0.0079	0.0035	0.0031
Garton (MRS)	0.0001	0.0012	0.0008
Glenmavis	0.0001	0.0001	0.0001
Hatfield Moor (MRS)	0.0021	0.0060	0.0049
Holehouse Farm (MRS)	0.0098	0.0146	0.0176
Hornsea (MRS)	0.0001	0.0003	0.0005
Partington	0.0082	0.0130	0.0173
Rough	0.0001	0.0007	0.0002

5 NTS Commodity Charges

5.1 NTS TO Commodity Charge

The NTS TO 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.

The rate is identified in the commodity schedule given in Table 5. For the avoidance of doubt, the TO commodity rate would be set to zero where forecast entry TO revenue is at, or above, the entry revenue target level.

5.2 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 5 below.

Table 5 NTS Commodity Charges

Invoice	Charge Code
ECO	NCE
Pence per kWh	
TO Entry	0.0019
SO Entry	0.0129
Combined Rate	0.0148
Invoice	Charge Code
COM	NCO
Pence per kWh	
SO Exit	0.0129

NTS entry commodity (NCE) will be invoiced using the combined rate.

5.3 NTS Optional Commodity Charge

The optional NTS commodity tariff is available as an alternative to both the entry / exit NTS SO commodity charges and the NTS TO commodity charge. It may be attractive for large daily metered sites located near to entry terminals, since the NTS SO and TO commodity tariffs 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 tariff 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 6 below.

Table 6 NTS Optional Commodity Charge

Invoice	Charge Code
ADU	880
Pence per kWh	
$1203 \times [(SOQ)^{-0.834}] \times D + 363 \times (SOQ)^{-0.654}$	

where **D** is the direct distance from the site or non-National Grid NTS pipeline to the elected terminal in km and **SOQ** is the registered supply point capacity in kWh. Note that ^ means “to the power of ...”

Further information on the NTS Optional Commodity tariff can be obtained from our UK Transmission Charging team on **01926 654633**.

6 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 7 below.

Table 7 St. Fergus Compression Charge

Invoice	Charge Code
ADZ	900
	Pence per kWh
Compression	0.0104

7 DN Pensions 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 six months October to March of the financial year 2007/08 are shown in Table 8 below.

Table 8 DN Pension Deficit Charge

Invoice	Charge Code
ADN	N23

DN	Monthly Charge, £	Per Annum, £m
East of England	404,104	4.85
London	235,587	2.83
North West	277,507	3.33
West Midlands	200,375	2.40
North of England	257,386	3.09
Scotland	177,739	2.13
South of England	411,649	4.94
Wales and the West	246,487	2.96

8 System Balancing Charge

A system balancing commodity charge will be payable to reflect the costs of ensuring a balance between gas entering the system and gas offtaken. For shippers operating wholly under Uniform Network Code (UNC) arrangements, the system balancing charge is zero.

The system balancing commodity charge is calculated as: The sum of energy balancing charges which are or would be payable under the UNC less energy balancing charges paid by or to the Shipper pursuant to the UNC or any other arrangement divided by the total quantity offtaken.

Energy balancing charges are defined in the UNC and include imbalance charges, scheduling charges and any additional charges payable by or to the Shipper for the purpose of enabling National Grid NTS to balance system inputs and offtakes.

The system balancing charges will be determined following each calendar month by monitoring gas inputs and offtakes on a daily basis.

9 Other Charges

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

9.1 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, including interconnectors, for which an administration charge is made.

The administration charge which applies to CSEPs containing NDM and DM sites is given in Table 9.

Table 9 CSEP Administration Charge

Invoice	Charge Code
ADU	884

Charge per supply point	0.1534 pence per day (£0.56 per annum)
--------------------------------	---

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

Table 10 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

9.3 Interconnector

9.3.1 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 11. 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 11 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

9.3.2 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 12.

Table 12 Administration Charges for Moffat

Invoice	Charge Code
ADU	884
	Daily charge per shipper
Agent service	£15.08
National Grid NTS service	£30.16

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 £0.63

10 Appendix A Estimation of Peak Daily Load for Non-Daily Metered Supply Points

For non-daily metered (NDM) supply points, the peak daily load is estimated using a set of End User Categories (EUCs). Each NDM supply point is allocated to an EUC. In each LDZ each EUC has an associated load factor, as listed in Table 14 and Table 15. The data in these tables applies for the gas year 1 October 2007 to 30 September 2008.

In the tables 'XX' refers to the LDZ Code (e.g. EA).

These EUCs depend upon the annual quantity (AQ) of the supply point and, in the case of monthly read sites, the ratio of winter to annual consumption where available.

10.1 Monthly Read Sites

It is mandatory for supply points with an annual consumption greater than 293 MWh to be monthly read. However, at the shipper's request, sites below this consumption may also be classified as monthly read.

For monthly read sites where the relevant meter reading history is available, the winter: annual ratio is the consumption from December to March divided by the annual quantity. If the required meter reading information is not available, the supply point is allocated to an EUC simply on the basis of its annual quantity.

The peak load for an NDM supply point may then be calculated as:

$$\frac{AQ \times 100}{365 \times LoadFactor}$$

For example,

For a supply point in Eastern LDZ with an annual consumption of 1,000 MWh per annum.

Assume consumption December to March inclusive is 550 MWh.

Winter annual ratio = $550 \div 1000 = 0.55$

For a site with an annual consumption of 1,000 MWh, a ratio of 0.55 falls within winter annual ratio band W03 as shown in Table 13 and the site is thus within End User Category EA:E0704W03.

For a site in this category, the load factor is 30.8% and the peak daily load is therefore,

$$\frac{1000 \times 100}{365 \times 30.8} = 8.90 \text{ MWh}$$

If the required meter reading information is not available to calculate the winter annual ratio, the supply point is allocated to an EUC simply on the basis of its annual quantity, in this case EA:E0704B.

For a site in this category, the load factor is 33.6% and the peak daily load is therefore,

$$\frac{1000 \times 100}{365 \times 33.6} = 8.15 \text{ MWh}$$

10.2 Six monthly read sites

In the case of six monthly read sites, the supply point is allocated to an EUC simply on the basis of its annual quantity.

For example,

For a supply point in Eastern LDZ with an annual consumption of 200 MWh per annum, the EUC will be EA:E0702B.

For a site in this category, the load factor is 30.3% and the peak daily load is therefore

$$\frac{200 \times 100}{365 \times 30.3} = 1.81 \text{ MWh}$$

10.3 Notes

The term LDZ is applied in the context of its usage with reference to the Uniform Network Code (UNC) daily balancing regime. This is not precisely the same as the term LDZ when it is used in the context of National Grid NTS's organisation structure.

For supply points whose consumption is over 73,200 kWh and which include one or more NDM supply meter points, an end user category code can be found in the supply point offer generated by UK Link. This code may be correlated with the end user category code shown opposite by means of a lookup table issued separately to shippers. Copies are available from the xoserve Supply Point Administration Management team on **0121 713 5569**.

For additional information regarding the demand estimation process, please contact xoserve on **0121 623 2695**.

10.4 Daily metered supply points

The SOQ of daily metered sites is known and hence no load factor is required.

Supply points with annual consumptions greater than 58,600 MWh should be daily metered. However, a handful of sites remain as non-daily metered as a result of difficulties installing the daily read equipment. In such cases the end user category code XX:E0709B is used.

Firm supply points with an AQ above 73.2 MWh pa may, at the shipper's request, be classified as daily metered. All interruptible supply points are daily metered.

10.5 Consultation on end user categories

Section H of the Uniform Network Code requires the transporter to publish its demand estimation proposals for the forthcoming supply year (NDM Profiling and Capacity Estimation Algorithms for 2007/08, August 2007), by the end of June each year. These proposals comprise end user category definitions, NDM profiling parameters (ALPs and DAFs), and capacity estimation parameters (EUC load factors). Analysis is presented to users and the Demand Estimation Sub-Committee (a sub-committee of the UNC Committee) is consulted before publication of its proposals.

The following tables define the end user category for particular LDZs by reference to annual consumption and winter annual ratio, applicable from 1 October 2007 to 30 September 2008.

Table 13 Definition of End User Categories

EUC Code	Annual Load (MWh)	Winter Annual Ratios (WAR)			
		W01	W02	W03	W04
xx:E0701B	0 to 73.2	-	-	-	-
xx:E0702B	73.2 to 293	-	-	-	-
xx:E0703B	293 to 732	0.00 - 0.41	0.41 - 0.49	0.49 - 0.57	0.57 - 1.00
xx:E0704B	732 to 2,196	0.00 - 0.41	0.41 - 0.49	0.49 - 0.57	0.57 - 1.00
xx:E0705B	2,196 to 5,860	0.00 - 0.37	0.37 - 0.44	0.44 - 0.52	0.52 - 1.00
xx:E0706B	5,860 to 14,650	0.00 - 0.32	0.32 - 0.40	0.40 - 0.48	0.48 - 1.00
xx:E0707B	14,650 to 29,300	0.00 - 0.31	0.31 - 0.36	0.36 - 0.45	0.45 - 1.00
xx:E0708B	29,300 to 58,600	0.00 - 0.30	0.30 - 0.33	0.33 - 0.41	0.41 - 1.00
xx:E0709B	> 58,600	-	-	-	-

Table 14 Small NDM Supply Points (Up to 2,196 MWh per annum)

xx: = LDZ =	EA	EM	NE	NO	NT	NW	SC	SE	SO	SW	WM	WA1	WA2
xx:E0701B	33.7%	36.7%	37.2%	34.2%	32.8%	37.3%	39.5%	32.0%	29.7%	32.2%	33.6%	37.3%	33.8%
xx:E0702B	30.3%	31.8%	29.5%	29.0%	34.0%	33.0%	38.5%	31.4%	31.8%	29.0%	30.0%	33.0%	29.2%
xx:E0703B	32.2%	33.0%	31.9%	32.3%	32.9%	33.8%	39.3%	31.4%	29.0%	29.6%	26.4%	33.8%	31.3%
xx:E0703W01	53.4%	54.9%	52.9%	50.5%	56.7%	54.7%	55.8%	56.7%	53.6%	56.3%	51.9%	54.7%	53.3%
xx:E0703W02	43.2%	41.7%	41.6%	36.4%	42.7%	41.0%	42.1%	42.9%	39.5%	42.8%	38.3%	41.0%	40.2%
xx:E0703W03	30.8%	30.3%	29.2%	26.9%	31.5%	29.0%	31.5%	31.0%	28.7%	29.2%	27.5%	29.0%	27.7%
xx:E0703W04	23.5%	23.8%	23.3%	21.6%	24.2%	23.9%	26.5%	23.7%	21.1%	22.9%	21.0%	23.9%	21.9%
xx:E0704B	33.6%	34.1%	34.9%	31.7%	35.4%	36.0%	40.8%	34.1%	31.6%	34.5%	30.8%	36.0%	31.4%
xx:E0704W01	53.4%	54.9%	52.9%	50.5%	56.7%	54.7%	55.8%	56.7%	53.6%	56.3%	51.9%	54.7%	53.3%
xx:E0704W02	43.2%	41.7%	41.6%	36.4%	42.7%	41.0%	42.1%	42.9%	39.5%	42.8%	38.3%	41.0%	40.2%
xx:E0704W03	30.8%	30.3%	29.2%	26.9%	31.5%	29.0%	31.5%	31.0%	28.7%	29.2%	27.5%	29.0%	27.7%
xx:E0704W04	23.5%	23.8%	23.3%	21.6%	24.2%	23.9%	26.5%	23.7%	21.1%	22.9%	21.0%	23.9%	21.9%

Table 15 Large NDM Supply Points (2,196 and above MWh per annum)

xx: = LDZ =	EA	EM	NE	NO	NT	NW	SC	SE	SO	SW	WM	WA1	WA2
xx:E0705B	36.0%	40.3%	36.7%	33.0%	39.7%	40.2%	40.6%	35.9%	30.3%	38.0%	35.2%	40.0%	38.0%
xx:E0705W01	64.1%	61.1%	60.1%	54.8%	63.9%	59.4%	61.9%	62.7%	58.2%	63.1%	59.6%	59.3%	63.1%
xx:E0705W02	48.5%	45.4%	43.9%	40.8%	48.1%	47.2%	45.4%	46.7%	39.7%	45.1%	43.0%	47.1%	45.3%
xx:E0705W03	37.8%	35.5%	33.9%	28.8%	37.4%	34.5%	34.6%	36.1%	29.6%	35.5%	33.2%	34.4%	34.7%
xx:E0705W04	26.0%	25.3%	23.9%	20.8%	25.5%	25.8%	26.8%	24.7%	20.3%	25.0%	23.3%	25.6%	24.0%
xx:E0706B	41.5%	44.4%	43.7%	37.7%	44.2%	46.9%	44.9%	42.8%	33.2%	44.2%	42.7%	46.7%	42.5%
xx:E0706W01	76.7%	74.4%	74.0%	71.2%	76.6%	73.3%	72.8%	76.4%	75.4%	76.6%	73.9%	73.3%	76.6%
xx:E0706W02	55.5%	53.2%	51.9%	48.6%	55.2%	54.4%	53.2%	53.8%	48.3%	54.8%	51.2%	54.2%	55.0%
xx:E0706W03	41.9%	39.5%	38.0%	35.7%	41.6%	42.1%	39.9%	40.2%	34.8%	41.2%	37.1%	42.0%	40.1%
xx:E0706W04	29.4%	28.0%	26.6%	22.4%	29.2%	27.7%	26.0%	28.1%	23.6%	28.9%	26.1%	27.5%	27.9%
xx:E0707B	49.5%	51.0%	49.6%	44.3%	49.3%	50.8%	52.0%	47.6%	39.0%	44.1%	48.8%	50.7%	44.2%
xx:E0707W01	78.2%	78.4%	78.2%	77.2%	78.2%	78.4%	78.1%	78.0%	77.0%	78.1%	78.1%	78.4%	78.1%
xx:E0707W02	62.0%	63.2%	62.1%	58.5%	61.8%	63.0%	62.2%	60.7%	56.3%	61.5%	61.5%	62.9%	61.5%
xx:E0707W03	44.3%	46.1%	44.3%	39.4%	44.0%	45.7%	44.1%	42.4%	36.8%	43.5%	43.7%	45.6%	43.5%
xx:E0707W04	31.5%	32.5%	30.8%	26.5%	31.2%	32.2%	30.5%	30.0%	25.5%	30.9%	30.6%	32.0%	30.2%
xx:E0708B	57.0%	60.8%	59.6%	59.5%	56.8%	65.1%	63.9%	55.2%	49.1%	56.0%	58.8%	65.0%	55.0%
xx:E0708W01	91.6%	91.2%	91.2%	91.1%	91.5%	91.4%	91.2%	91.6%	91.6%	91.5%	91.3%	91.4%	91.5%
xx:E0708W02	76.0%	76.7%	75.9%	73.3%	75.8%	76.6%	76.0%	75.1%	71.9%	75.6%	75.6%	76.5%	75.5%
xx:E0708W03	57.6%	59.1%	57.8%	53.1%	57.4%	58.9%	57.0%	56.0%	50.7%	56.9%	57.0%	58.8%	57.0%
xx:E0708W04	36.8%	38.2%	36.0%	31.2%	36.5%	37.4%	35.7%	35.2%	30.1%	36.0%	35.7%	37.2%	35.3%
xx:E0709B	66.4%	67.8%	66.5%	62.4%	66.2%	67.6%	66.7%	64.9%	59.8%	65.7%	65.8%	67.5%	65.8%

11 Appendix B Initial NTS SO Baseline Obligated Entry Capacity

Table 16 below details the NTS SO baseline obligated entry capacity GWh/day identified in National Grid NTS's GT Licence and used as the basis for determination of minimum annual quantities to be offered after 1 April 2007.

Table 16 NTS SO Baseline Obligated Entry Capacity (GWh/day)

Terminal	1 April 2007 onwards
Coastal Terminals and LNG Importation	
Bacton	1,783.4
Barrow	309.1
Easington/Rough	1,062.0
Isle of Grain	175.0
Milford Haven	0
St Fergus	1,670.7
Teesside	361.3
Theddlethorpe	610.7
Onshore Fields and Connections	
Burton Point	73.5
Hatfield Moor	0.3
Hole House Farm	131.6
Wytch Farm	3.3
Storage Sites	
Barton Stacey	82.6
Cheshire	285.9
Fleetwood	0
Garton	0
Glenmavis	28.5
Hatfield Moor	14.9
Hornsea	164.1
Partington	174.6
Constrained LNG	
Avonmouth	179.3
Dynevor Arms	8.0
New Entry Points	
Burton Agnes (Caythorpe)	0
Winkfield	0
Blyborough (Welton)	0
Tatsfield	0
Albury	0
Palmers Wood	0

12 Appendix C(i) AMSEC Entry Capacity

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

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.

13 Appendix C(ii) 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 GT Licence. For periods that are subject to a QSEC allocation, then supply can be further expanded in accordance with National Grid NTS's IECR 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.

14 Appendix D QSEC Step Prices

Below are the entry capacity reserve prices together with the price steps for each level of incremental capacity for use in the auction of Quarterly System Entry Capacity (QSEC) September 2008.

Pence/kWh/day

Coastal Terminals & Importation Facilities								
	Bacton	Easington&Rough	Theddlethorpe	St Fergus	Teesside	Barrow	Milford Haven	Isle of Grain
Obligated Level	0.0084	0.0092	0.0082	0.0378	0.0083	0.0070	0.0172	0.0006
2.5%	0.0085	0.0093	0.0087	0.0388	0.0084	0.0071	0.0186	0.0007
5.0%	0.0086	0.0095	0.0096	0.0390	0.0097	0.0072	0.0188	0.0008
7.5%	0.0089	0.0096	0.0103	0.0391	0.0098	0.0073	0.0189	0.0009
10.0%	0.0104	0.0097	0.0104	0.0392	0.0099	0.0074	0.0190	0.0010
12.5%	0.0105	0.0104	0.0105	0.0399	0.0100	0.0075	0.0191	0.0011
15.0%	0.0106	0.0105	0.0106	0.0418	0.0110	0.0076	0.0192	0.0012
17.5%	0.0107	0.0107	0.0107	0.0419	0.0111	0.0084	0.0193	0.0013
20.0%	0.0108	0.0108	0.0108	0.0420	0.0112	0.0085	0.0194	0.0014
22.5%	0.0109	0.0109	0.0109	0.0421	0.0113	0.0086	0.0195	0.0170
25.0%	0.0110	0.0110	0.0110	0.0422	0.0114	0.0087	0.0196	0.0175
27.5%	0.0116	0.0111	0.0111	0.0423	0.0122	0.0088	0.0197	0.0187
30.0%	0.0117	0.0112	0.0112	0.0424	0.0124	0.0089	0.0198	0.0191
32.5%	0.0118	0.0121	0.0113	0.0425	0.0125	0.0090	0.0199	0.0233
35.0%	0.0119	0.0128	0.0114	0.0426	0.0158	0.0091	0.0200	0.0234
37.5%	0.0120	0.0129	0.0115	0.0427	0.0159	0.0092	0.0201	0.0235
40.0%	0.0121	0.0130	0.0116	0.0428	0.0160	0.0093	0.0202	0.0236
42.5%	0.0122	0.0131	0.0117	0.0429	0.0161	0.0094	0.0203	0.0237
45.0%	0.0130	0.0132	0.0118	0.0430	0.0162	0.0095	0.0204	0.0238
47.5%	0.0139	0.0133	0.0119	0.0431	0.0163	0.0096	0.0205	0.0239
50.0%	0.0141	0.0134	0.0120	0.0432	0.0164	0.0097	0.0206	0.0240
Obligated Level (GWh/d)	1783.4	1407	610.7	1670.7	476	309.1	950	699.68

Pence/kWh/day

Onshore Fields and Connections							
Hatfield Moor		Wytch Farm		Burton Point		Hole House Farm	
Obligated Level	0.0028	Obligated Level	0.0001	Obligated Level	0.0001	Obligated Level	0.0001
10%	0.0029	10%	0.0002	10%	0.0002	10%	0.0013
20%	0.0030	20%	0.0003	20%	0.0003	20%	0.0014
30%	0.0031	30%	0.0004	30%	0.0004	30%	0.0015
40%	0.0032	40%	0.0005	40%	0.0005	40%	0.0016
50%	0.0033	50%	0.0006	50%	0.0006	50%	0.0017
Obligated Level (GWh/d)	25.3		3.3		73.5		131.6

Appendix D continued

Pence/kWh/day

Storage Sites											
Garton		Cheshire	Fleetwood	Hornsea		Glenmavis		Partington		Barton Stacey	
Obligated Level				Obligated Level		Obligated Level		Obligated Level		Obligated Level	
	0.0100	0.0001	0.0052		0.0090		0.0172		0.0001		0.0001
2.5%	0.0101	0.0002	0.0055	6.44%	0.0094	10.0%	0.0173	7.0%	0.0002	8.7%	0.0006
5.0%	0.0102	0.0003	0.0056	12.87%	0.0095	20.0%	0.0174	14.0%	0.0003	17.4%	0.0008
7.5%	0.0103	0.0006	0.0057	19.31%	0.0096	30.0%	0.0175	20.9%	0.0018	26.1%	0.0014
10.0%	0.0104	0.0007	0.0058	25.74%	0.0097	40.0%	0.0197	27.9%	0.0028	34.8%	0.0053
12.5%	0.0105	0.0017	0.0059	32.18%	0.0098	50.0%	0.0198	34.9%	0.0029	43.5%	0.0054
15.0%	0.0106	0.0018	0.0060	38.61%	0.0099			41.9%	0.0031	52.1%	0.0055
17.5%	0.0107	0.0019	0.0061	45.05%	0.0100			48.8%	0.0032		
20.0%	0.0108	0.0020	0.0062	51.48%	0.0101			55.8%	0.0033		
22.5%	0.0109	0.0021	0.0063								
25.0%	0.0110	0.0022	0.0064								
27.5%	0.0111	0.0023	0.0065								
30.0%	0.0112	0.0024	0.0066								
32.5%	0.0113	0.0037	0.0067								
35.0%	0.0114	0.0038	0.0068								
37.5%	0.0115	0.0044	0.0069								
40.0%	0.0116	0.0045	0.0070								
42.5%	0.0118	0.0046	0.0071								
45.0%	0.0120	0.0047	0.0072								
47.5%	0.0121	0.0048	0.0073								
50.0%	0.0122	0.0049	0.0074								
Obligated Level (GWh/d)	420	350.1	650		233.1		99		215		172.6

Pence/kWh/day

Constrained LNG			
Avonmouth		Dynevor Arms	
Obligated Level		Obligated Level	
	0.0001		0.0001
8.37%	0.0045	10%	0.0002
16.73%	0.0046	20%	0.0003
25.10%	0.0047	30%	0.0004
33.46%	0.0048	40%	0.0005
41.83%	0.0049	50%	0.0006
50.20%	0.0054		
Obligated Level (GWh/d)	179.3		49

Appendix D continued

Pence/kWh/day

New Entry Points		
GWh/d	Caythorpe	Portland
Obligated Level	0.0000	0.0000
15	0.0088	0.0001
30	0.0089	0.0002
45	0.0091	0.0041
60	0.0092	0.0042
75	0.0093	0.0043
90	0.0094	0.0044
105	0.0095	0.0045
120	0.0096	0.0046
135	0.0097	0.0047
150	0.0098	0.0048
165	0.0099	0.0062
180	0.0100	0.0070
195	0.0101	0.0087
210	0.0102	0.0088
225	0.0103	0.0094
240	0.0104	0.0095
255	0.0105	0.0096
270	0.0106	0.0097
285	0.0107	0.0098
300	0.0108	0.0099

15 Appendix E Estimated Project Values

£m

	Coastal Terminals & Importation Facilities							
	Bacton	Easington&Rough	Theddlethorpe	St Fergus	Teesside	Barrow	Milford Haven	Isle of Grain
Baseline								
2.5%	13.31	11.62	4.72	57.59	3.51	1.92	15.70	0.37
5.0%	26.62	23.75	10.42	115.76	8.20	3.84	31.73	0.75
7.5%	42.30	35.62	16.76	173.65	12.31	5.77	47.85	1.12
10.0%	65.91	48.00	22.35	231.53	16.41	7.69	63.80	1.49
12.5%	83.17	64.99	27.94	296.09	20.51	9.61	79.75	1.87
15.0%	99.81	77.99	33.53	372.22	27.91	11.53	95.70	2.24
17.5%	116.44	93.62	39.50	434.26	32.56	16.15	111.65	2.61
20.0%	133.08	107.99	45.14	496.30	37.89	18.45	127.60	2.98
22.5%	155.42	121.49	50.78	558.34	42.62	20.76	143.55	95.10
25.0%	172.68	134.99	56.42	620.37	47.36	23.07	159.50	108.77
27.5%	202.15	148.49	62.06	684.04	56.75	25.37	175.45	127.85
30.0%	220.53	161.99	67.71	746.23	62.92	27.68	195.45	142.46
32.5%	238.91	196.61	73.35	808.41	68.16	29.99	211.74	188.27
35.0%	257.28	223.98	78.99	878.91	93.53	32.29	228.03	202.75
37.5%	275.66	239.98	84.63	941.69	100.22	34.60	253.18	217.23
40.0%	299.11	257.98	90.27	1004.47	107.57	36.90	270.06	232.71
42.5%	323.19	274.10	95.92	1067.25	114.30	39.21	286.93	247.25
45.0%	370.72	290.23	101.56	1130.03	121.02	41.52	306.85	261.80
47.5%	418.40	306.35	111.32	1192.81	127.74	43.82	323.90	276.34
50.0%	446.76	322.47	117.18	1255.59	134.47	46.13	340.94	290.89
Obligated Level (GWh)	1783.4	1407	610.7	1670.7	476	309.1	950	699.68

£m

Onshore Fields and Connections							
Hatfield Moor		Wytch Farm		Burton Point		Hole House Farm	
Obligated Level		Obligated Level		Obligated Level		Obligated Level	
10%	0.25	10%	0.001	10%	0.03	10%	0.61
20%	0.50	20%	0.002	20%	0.05	20%	1.22
30%	0.76	30%	0.004	30%	0.08	30%	1.82
40%	1.01	40%	0.005	40%	0.10	40%	2.43
50%	1.48	50%	0.006	50%	0.13	50%	3.04
Obligated Level (GWh/d)	25.3		3.3		73.5		131.6

Estimated Project Costs, £m

Below are the estimated project cost (£m) by ASEP for each incremental capacity level as given in Appendix D.

£m

Storage Sites											
Garton		Cheshire	Fleetwood	Hornsea		Glenmavis		Partington		Barton Stacey	
Obligated Level				Obligated Level		Obligated Level		Obligated Level		Obligated Level	
2.5%	3.73	0.03	3.18	6.4%	5.01	10.0%	6.05	7.0%	0.05	8.7%	0.32
5.0%	7.46	0.06	6.47	12.9%	10.02	20.0%	12.10	14.0%	0.11	17.4%	0.85
7.5%	11.19	0.56	9.70	19.3%	15.35	30.0%	18.47	20.9%	2.88	26.1%	2.24
10.0%	14.92	0.75	12.93	25.7%	20.47	40.0%	27.72	27.9%	5.97	34.8%	11.30
12.5%	18.66	2.64	16.17	32.2%	25.58	50.0%	34.65	34.9%	7.46	43.5%	14.13
15.0%	22.39	3.17	19.75	38.6%	30.70			41.9%	9.91	52.1%	16.95
17.5%	26.12	3.70	23.04	45.0%	36.19			48.8%	11.57		
20.0%	29.85	4.73	26.33	51.5%	41.36			55.8%	13.22		
22.5%	33.58	5.32	29.62								
25.0%	37.31	5.91	32.91								
27.5%	41.04	6.50	36.20								
30.0%	44.77	7.09	40.19								
32.5%	48.50	14.96	43.54								
35.0%	54.85	16.11	46.89								
37.5%	58.76	20.53	50.24								
40.0%	67.46	21.90	53.59								
42.5%	74.84	23.26	56.93								
45.0%	80.59	24.63	60.28								
47.5%	85.07	26.00	63.63								
50.0%	89.54	27.37	75.06								
Obligated Level (GWh/d)	420	350.1	650		233.1		99.0		215		172.6

£m

Constrained LNG			
Avonmouth		Dynevor Arms	
Obligated Level		Obligated Level	
8.4%	2.40	10%	0.02
16.7%	4.80	20%	0.04
25.1%	7.20	30%	0.05
33.5%	9.59	40%	0.07
41.8%	12.53	50%	0.09
50.2%	17.27		
Obligated Level (GWh/d)	179.3		49

Estimated Project Costs, £m

£m

New Entry Points		
	Caythorpe	Portland
Obligated Level		
15	4.69	0.05
30	9.38	0.11
45	14.55	6.56
60	19.40	8.74
75	24.25	10.93
90	29.10	13.11
105	33.95	16.04
120	39.23	18.34
135	44.13	20.63
150	49.04	25.58
165	53.94	36.35
180	61.40	44.77
195	66.52	60.28
210	72.38	64.92
225	78.35	75.15
240	83.58	80.16
255	92.42	86.99
270	99.78	92.10
285	105.32	98.23
300	110.86	103.40