## nationalgrid

# Procurement Guidelines Report

## **UK Transmission**

For the Period 01 April 2009 – 31 March 2010

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#### **Executive Summary**

National Grid has been given discretion with regard to the procurement of System Management Services, subject to an obligation under its Gas Transporter (GT) Licence to operate the system in an efficient, economic and co-ordinated manner, and taking into account its System Operator (SO) incentives.

National Grid confirms that System Management Services during the period covered by this Report have been procured in accordance with the principles set out in the prevailing Procurement Guidelines, and therefore National Grid Gas considers that such activities satisfy its relevant GT Licence obligations.

#### 1. Introduction

#### 1.1 Purpose of the document

This document is the Procurement Guidelines Report ("Report"), which National Grid is required to publish in accordance with Special Condition C5 of its GT Licence. This Report provides information in respect of the procurement of System Management Services referred to in the Procurement Guidelines. The Procurement Guidelines set out the kinds of System Management Services which National Grid may be interested in purchasing, together with the mechanisms by which National Grid envisages purchasing such services.

This Report, which has been developed in consultation with the Authority, covers each of the services detailed in Table 1 of the Procurement Guidelines, and identifies contractual and market-related information for each of the services.

Terms used within this Report shall have the same meaning given to them in National Grid's GT Licence and National Grid's Network Code, as the case may be.

Further copies of this Report may be obtained from <a href="http://www.nationalgrid.com/uk/Gas/OperationalInfo/">http://www.nationalgrid.com/uk/Gas/OperationalInfo/</a>

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#### 1.2 Reporting Period

This Report has been prepared in accordance with paragraph 4 of Special Condition C5. This Condition states that the Report should be produced within one month after the publication date of the Procurement Guidelines that are prepared in accordance with paragraph 3 of this Condition.

This report includes details of System Management Services procured in relation to the gas flow period 1 April 2009 to 31 March 2010 inclusive.

This reporting period covers the last month of Storage Year 2008/2009 (April 2009) and the majority of Storage Year 2009/2010 (May 2009 to March 2010).

#### 2. Procurement of System Management Services

#### 2.1 Definition of System Management Services

Special Condition C5 (paragraph 15) of National Grid's GT Licence defines the System Management Services as the "services in relation to the balancing of gas inputs to, and gas off takes from, the NTS and includes balancing trades, balancing trade derivatives and constraint management services."

Table 1 in the Procurement Guidelines summarises the above System Management Services as being required for the following applications:

- Energy Balancing
- Entry Capacity Management
- Exit Capacity Management
- Operating Margins gas
- Shrinkage

#### 2.2 System Management Services Procured

The services National Grid procured in this period are summarised in Table 1.

#### Table 1 - Services Procured

#### 1a. Operating Margins (OM)

The purpose of an OM system management service is to ensure Operational Balancing capability in the event of a supply failure, demand forecast change or plant failure. In addition, a quantity of OM is held in reserve to manage the orderly run-down of the system in an emergency.

**Service Component** | Component Description and Details

National Grid (OM) procures this service from the providers:

- NG LNG storage facilities
- Rough storage facility
- ♦ Hornsea storage facility
- ♦ Hole House Farm storage facility
- Grain LNG Importation Terminal

At National Grid LNG storage facilities, National Grid (OM) has priority over all other Users in procuring Storage Capacity for OM purposes. However, at Rough, Hornsea and Hole House Farm, National Grid (OM) has the same rights as any other User. Post conversion of the Isle of Grain LNG facility from a storage facility to an LNG importation facility (15th July 2005), capacity holders at Grain provide an OM service to National Grid.

#### For the period 1 April 2009 – 31 March 2010, National Grid Gas (OM) procured Operating Margins services as follows:

## Holdings Contracts (space and deliverability)

Month	Facility	Space	Unit Cost	Deliverability	Unit Cost
		(kWh)	(p/kWh/annum)	(kWh/d)	(p/kWh)
April-09	Rough	455,000,125	0.3923	0	0
	Hornsea	80,000,000	1.5389	0	0
	Avonmouth	177,000,000	1.5230	0	0
	Dynevor Arms	37,000,000	2.9560	0	0
	Glenmavis	131,000,000	1.7750	0	0
	Partington	262,000,000	1.1300	0	0
	Hole House Farm	25,000,000	1.3200	0	0
May-09 to	Rough	562,499,992	0.3462	0	0
Mar-10	Hornsea	80,000,000	1.7578	0	0
	Avonmouth	194,500,000	1.5810	0	0
	Glenmavis	128,500,000	1.8430	0	0
	Partington	219,500,000	1.1730	0	0
	Hole House Farm	25,000,000	1.4500	0	0
Apr-09 to Dec-09	Isle of Grain LNG Importation Terminal	93,000,000	8.5436	0	0
Oct-09 to Dec-09	Isle of Grain LNG Importation Terminal	27,000,000	8.8164	0	0
Jan-10 to Mar-10	Isle of Grain LNG Importation Terminal	120,000,000	7.7537	0	0

### Gas-in-storage 'Swap' tender

National Grid Gas (OM) utilises this service to address OM gas-in-store surpluses and deficits. National Grid Gas (OM) issues a 'swap tender' to Users, offering to trade gas in store at a facility where National Grid Gas has an OM surplus for shipper gas in store at a different facility where there is an OM deficit. Users may offer a payment to National Grid Gas or receive a payment from National Grid Gas, reflecting the different injection values attached to the gas.

No Gas-in-storage SWAP tenders have been made between 1 April 2009 and 31 March 2010.

#### **Gas Procurement**

National Grid Gas (OM) utilises this service to address an Operating Margins gas deficit at a given storage facility where National Grid Gas holds Operating Margins Capacity Arrangements. National Grid Gas (OM) either issues a tender to Users to meet its requirements or injects gas that has been withdrawn from storage facilities with an Operating Margins gas surplus. Typically, National Grid Gas invites Users to offer to sell gas either in store or at the NBP although National Grid Gas may contract for the purchase of OM gas (as to all or any part of its requirements).

For the period 1 April 2009 – 31 March 2010, National Grid Gas (OM) procured this service as follows:

Month	Facility	In-Store quantity (kWh)	NBP quantity (kWh)	In-Store weighted average price (p/kWh)
May-09	Rough	77,000,000	-	1.1567
July-09	Rough	14,653,550	-	0.8019
	Rough	15,386,228	-	0.8104

	Users to meet Typically, Nation	its requirements or wonal Grid Gas invites	argins Capacity Arrange ithdraws gas to inject in Users to bid to buy gas ethalon, National Grid Gas	to storage facilitie either in store or a	Grid Gas (OM) either es with an Operating Notes the NBP.	issues a tender
Gas Disposal	Month	Facility	In-Store quantity (kWh)	NBP quantity (kWh)	In-store weighted average price (p/kWh)	NBP weighted average price (p/kWh)
	Apr-09	Dynevor Arms	-	6,000,000	-	0.9554
		Dynevor Arms	-	31,000,000	-	0.9394
		Glenmavis	2,500,000	-	1.2642	-
	May-09	alcrimavis				
OM Transfer		Partington  Gas (OM) utilises th	25,000,000 is service to address a	- a gas-in-store su	1.1151	nsferring OM g
oetween Storage	National Grid between Stora  For the period  Month	Partington  Gas (OM) utilises the ge Facilities.  1 April 2009 – 31 Marc  Facility ga	25,000,000  is service to address and the 2010, National Grid Gasts transferred fracility on	a gas-in-store su s (OM) procured th gas transferred to	1.1151  rplus or deficit by tra  nis service as follows:  Quantity (kWh)	Insferring OM ga Fransfer Fee Paid (p/kWh)
OM Transfer between Storage Facilities	National Grid between Stora	Partington  Gas (OM) utilises the ge Facilities.  1 April 2009 – 31 Marc  Facility ga	25,000,000  is service to address and the 2010, National Grid Gas stransferred Facility	a gas-in-store su s (OM) procured th gas transferred to	1.1151  rplus or deficit by tra  nis service as follows:  Quantity	nsferring OM g

#### **1b.Operating Margins Development**

For 2009/10, National Grid Gas (OM) procures potential Operating Margins services as part of the Operating Margins Contestability Project. This service is used to physically test potential Operating Margins provision by demand reduction and supply increase. For further information, please see our website at: <a href="https://www.nationalgrid.com/uk/gas/operationalinfo/gasoperatingmargins">www.nationalgrid.com/uk/gas/operationalinfo/gasoperatingmargins</a>

Between 1 April 2009 and 31 March 2010, this service was procured as follows:

#### Delivery Arrangements

National Grid Gas (OM) procures services to test potential Operating Margins provision by demand reduction and supply increase.

For the period 1 April 2009 – 31 March 2010, national Grid Gas (OM) procured Operating Margins Gas Delivery Arrangements as follows:

Month	Contract	OM Deliverability (kWh/d)	Price (p/kWh/d/annum)
May-09 to Mar-10	Portfolio of Offtake Reduction and Supply Increase	24,000,000	0.6620
	Single Offtake Reduction	12,000,000	2.0000

National Grid (OM) utilises its development contracts to test the service call-off process and procedures as well as the physical effectiveness of the potential Operating Margins services. The utilisation price includes the gas trade fee.

For the period 1 April 2009 – 31 March 2010, National Grid Gas (OM) utilised Operating Margins Development Contracts as follows:

#### **OM Testing**

Month	Contract	Utilisation Quantity (kWh)	Utilisation Price (p/kWh)
Jun-09	Portfolio of Offtake Reduction and Supply Increase	2,391,278	4.6822
Jul-09	Portfolio of Offtake Reduction and Supply Increase	5,998,956	2.1222
Aug-09	Single Offtake Reduction	3,000,000	4.6676
	Single Offtake Reduction	2,000,000	4.6450

Gas Disposal	surplus on the Operating Marg		(OM) may utilise this service to address a ground this service as follows:
following Testing	Month	NBP Quantity (kWh)	NBP Price (p/kWh)
	Jul-09	5,861,420	0.7507
	Aug-09	2,930,710	0.8019
		2,930,710	0.8104
		1,992,833	0.7763
Gas Procurement	National Grid Gas (OM) may Operating Margins provider test		deficit following a cancellation of a potent  NBP Price (p/kWh)

#### 2. Constrained Storage

The purpose of a constrained storage service is to economically meet 1 in 20 capacity obligations at the Network extremities. *Between 1 April 2009 and 31 March 2010, this service was procured as follows:* 

Between 1 April 2009 and 31 March 2010, this service was procured as follows:

Month	Facility	Shipper Booked deliverability (kWh)	Transportation Credit (p/kWh/day)
Apr-09	Avonmouth	156,200,000	0.0032
May-09 to Mar-10	Avonmouth	143,000,000	0.0041

#### 3. Shrinkage

The NTS Shrinkage Provider manages the risk exposure associated with the shrinkage account. Shrinkage includes gas for own use (running of compressors, vented gas, gas used for preheating) and to cover any gas losses (unidentified theft, meter errors, leakage and CV shrinkage associated with variations in calorific value of gas). The account is subject to normal cash-out arrangements if the daily gas quantities delivered to the system do not match the Daily Shrinkage Quantities.

National Grid manages this service by trading gas at the NBP, following the approval of Network Code Modification Proposals 0579 (Feb 2003) and 0599 (April 2004).

#### **Service Component**

#### **Component Description and Details**

For 1 April 2009 to 31 March 2010, National Grid procured NTS shrinkage via NBP trades as follows:

#### NBP Trades

			Weighted Avg			
	Total Quantity	Purchase Cost	<b>Purchase Price</b>	<b>Total Quantity</b>	<b>Sell Revenue</b>	Weighted Avg Sell
	Purchased (kWh)	<b>(£)</b>	(p/kWh)	Sold (kWh)	<b>(£)</b>	Price (p/kWh)
Apr-09	599,359,502	£8,305,820	1.3858	31,058,346	£319,684	1.0293
May-09	659,820,049	£8,539,313	1.2942	5,062,919	£44,683	0.8826
Jun-09	447,665,953	£6,432,310	1.4369	32,691,894	£303,385	0.9280
Jul-09	371,174,422	£4,933,943	1.3293	30,359,166	£267,605	0.8815
Aug-09	383,043,797	£4,908,418	1.2814	618,380	£5,001	0.8088
Sep-09	394,766,637	£5,023,643	1.2726	133,050,922	£1,054,497	0.7926
Oct-09	823,324,360	£12,301,530	1.4941	54,949,347	£867,047	1.5779
Nov-09	1,054,410,844	£15,206,918	1.4422	104,186,272	£1,414,400	1.3576
Dec-09	1,067,159,432	£15,906,573	1.4906	54,951,047	£871,721	1.5864
Jan-10	1,160,004,325	£18,835,535	1.6237	99,882,700	£1,406,238	1.4079
Feb-10	1,550,667,968	£22,504,126	1.4513	88,187,438	£1,171,616	1.3286
Mar-10	1,749,868,327	£23,836,364	1.3622	106,071,685	£1,390,447	1.3109

From 1 April 2009 to 31 March 2010, National Grid's imbalance cash-out for the NTS shrinkage account was as follows:

#### **Quantity Sold** Quantity Weighted (over Purchased (under | Purchase Cost | **Average Cost** delivered) **Sell Revenue | Weighted Average** Month delivered) (kWh) (at SMPb) (£) (kWh) Revenue (p/kWh) (p/kWh) (at SMPs) (£) £44,769 Apr-09 4,295,908 1.0421 8,000,053 £74,047 0.9256 5,307,191 £47,788 0.9004 3,418,392 £29,203 0.8543 May-09 5,265,347 £49,715 3,889,333 £32,988 Jun-09 0.9442 0.8482 £108,936 278,947 £2,207 Jul-09 13,117,464 0.8305 0.7912 15,535,465 £115,346 0.7425 516,042 £3,955 0.7664 Aug-09 Sep-09 3,698,986 £25,873 1,982,217 £11,367 0.5735 0.6995 Oct-09 12,857,401 £105,813 5,697,062 £51,031 0.8957 0.8230 10,195,155 £94,766 0.9295 4,328,897 £37,616 0.8690 Nov-09 Dec-09 10,754,866 £112,082 1.0422 4,648,610 £44,358 0.9542 13,480,311 £190,579 3,218,468 £39,393 1.2240 Jan-10 1.4138 £139,539 4,831,001 £56,390 1.1673 Feb-10 11,325,331 1.2321 9,882,407 14,349,969 £157,714 1.0991 £102,106 1.0332 Mar-10

#### **Imbalance Cash-out**

#### 4. Entry Capacity Management

The purpose of an entry capacity management service is to enable National Grid Gas to efficiently manage entry capacity rights. Entry capacity holdings may need to be reduced to either efficiently manage capacity risk exposure or to reduce holdings, and thereby manage flows onto the system. National Grid Gas may buyback entry capacity from Users via the Gemini entry capacity system or it may enter into Capacity Management Agreements (CMAs).

For the period 1 April 2009 – 31 March 2010, National Grid Gas procured these services as follows:

Service Component			Compor	ent Description a	nd Details	
	Month	ASEP	No. of days on which offers accepted	No. of offers accepted	Quantity accepted (kWh)	Weighted average price (p/kWh)
	Apr-09	None	0	0	0	0
	May-09	None	0	0	0	0
	Jun-09	None	0	0	0	0
Buybacks on Gemini	Jul-09	None	0	0	0	0
	Aug-09	None	0	0	0	0
	Sep-09	None	0	0	0	0
	Oct-09	None	0	0	0	0
	Nov-09	None	0	0	0	0
	Dec-09	None	0	0	0	0
	Jan-10	None	0	0	0	0
	Feb-10	None	0	0	0	0
	Mar-10	None	0	0	0	0

CMAs	<ul><li>Options</li></ul>
Aareer	nents

Period	ASEP	Total Quantity Accepted (kWh)	Cost of Option (£)
Apr-09	None	0	0
May-09	None	0	0
1 <sup>st</sup> to 12 <sup>th</sup> June-09	None	0	0
13 <sup>th</sup> to 30 <sup>th</sup> Jun-09	Isle Of Grain	45,000,000	13,950
Jul-09	None	0	0
Aug-09	None	0	0
Sep-09	None	0	0
Oct-09	None	0	0
Nov-09	None	0	0
Dec-09	None	0	0
Jan-10	None	0	0
Feb-10	None	0	0
Mar-10	None	0	0

CMAs -	<ul><li>Forwards</li></ul>
Agreen	nents

Period	ASEP	Quantity Utilised (kWh)	Total Cost of Forward Buybacks (£)
Apr-09	None	0	0
May-09	None	0	0
Jun-09	None	0	0
Jul-09	None	0	0
Aug-09	None	0	0
Sep-09	None	0	0
Oct-09	None	0	0
Nov-09	None	0	0
Dec-09	None	0	0
Jan-10	None	0	0
Feb-10	None	0	0
Mar-10	None	0	0

#### CMAs – Options Utilisation

Period	ASEP	Quantity utilised (kWh)	Total Cost of utilisation (option + exercise) (£)	No. of days on which option exercised
Apr-09	None	0	0	0
May-09	None	0	0	0
Jun-09	None	0	0	0
Jul-09	None	0	0	0
Aug-09	None	0	0	0
Sep-09	None	0	0	0
Oct-09	None	0	0	0
Nov-09	None	0	0	0
Dec-09	None	0	0	0
Jan-10	None	0	0	0
Feb-10	None	0	0	0
Mar-10	None	0	0	0

#### 5. Exit Capacity Management

The purpose of an exit capacity management service is to enable the system to accommodate gas flows in accordance with Users' exit capacity rights. In the event of desired exit flows exceeding transportation capability, National Grid may procure a range of demand/supply side services (including interruption) in order to achieve the desired changes in gas flows. The interruption services may be procured to manage NTS constraints and/or Network Gas Supply Emergencies.

Service Component	Component Description and Details
-	On 1 April 2009, National Grid had interruption access to 32 sites (NTS Power Stations, Industrial Sites and the Moffat Interconnector) with an aggregate potential available interruption of 1092.2 GWh (excluding Bacton)  In addition, the NTS also had access to a potential 628.4 GWh of Interruption at the Bacton Interconnector along with 9
Interruption to manage NTS constraints	Storage Sites (excluding Dynevor Arms) that have exit capacity on an interruptible basis available during the summer months.
	During the period 1 April 2009 to 31 March 2010, National Grid had a requirement to Interrupt to manage an NTS constraint on 06 and 07 January 2010. There was no requirement for a National Gas Supply Emergency.

#### 6. Gas Balancing

The purpose of a gas balancing system management service is to enable National Grid, acting in its role as residual system balancer, to balance the gas inputs to and offtakes from the NTS, within acceptable levels. In order to achieve the desired gas flows, National Grid may carry out 'prompt' gas trades or enter into forwards/options energy contracts ('non-gas-trade' tools which may be used for achieving gas balance are covered under 'entry capacity management' and 'exit capacity management').

Component Description and Details
National Grid trades on On-the-day Commodity Market (OCM) day ahead and/or within day to resolve imbalances. OCM trades are deployed to achieve both national system balance and to meet localised requirements. For national system requirements, National Grid trades in all three OCM markets i.e. physical, title and locational. For localised requirements, National Grid only trades in the locational market.  **During the period 1 April 2009 to 31 March 2010, National Grid carried out the following OCM trades:**

	Nationa	I 'NBP Title'	Trades							
	Month	No. of days on which trades accepted	No. of Trade buys	No. of Trade sells	Quantity Purchased (kWh)	Quantity Sold (kWh)	Purchase cost (£)	Sell revenue (£)	Weighted Average Purchase Price (p/kWh)	Weighted Average Sell Price (p/kWh)
	Apr-09	17	32	191	91,174,389	540,481,548	979,879	5,162,620	1.0747	0.9552
OCM 'NDD Title' trades	May-09	11	16	70	43,403,816	181,850,562	425,669	1,407,475	0.9807	0.7740
OCM 'NBP Title' trades to address a National	Jun-09	13	88	89	243,131,705	210,835,282	2,179,192	1,892,978	0.8963	0.8978
Requirement	Jul-09	16	176	36	516,889,328	91,613,996	4,455,515	656,266	0.8620	0.7163
	Aug-09	19	89	71	265,961,936	194,774,987	2,036,832	1,191,144	0.7658	0.6115
	Sep-09	18	175	43	464,664,083	88,272,989	3,874,962	367,372	0.8339	0.4162
	Oct-09	20	129	133	323,960,691	336,885,124	3,024,380	2,423,520	0.9336	0.7194
	Nov-09	10	28	115	70,366,348	292,396,943	678,707	2,589,711	0.9645	0.8857
	Dec-09	23	177	188	398,723,103	520,347,574	4,435,841	5,347,384	1.1125	1.0277
	Jan-10	21	108	236	302,976,806	654,105,179	5,972,780	8,337,573	1.9714	1.2747
	Feb-10	15	74	192	166,083,338	437,613,627	2,068,143	5,013,338	1.2452	1.1456
	Mar-10	20	46	351	92,844,900	792,141,627	1,089,773	8,173,612	1.1738	1.0318
				·						

OCM 'Physical' trades to address a National Requirement

National	l 'Physical' l	<b>Frades</b>							
Month	No. of days on which trades accepted	No. of Trade buys	No. of Trade sells	Quantity Purchase d (kWh)	Quantity Sold (kWh)	Purchase cost (£)	Sell revenue (£)	Weighted Average Purchase Price (p/kWh)	Weighted Average Sell Price (p/kWh)

No OCM Physical trades were conducted in this period to address a National Requirement.

	National 'Locational' Trades									
OCM 'Locational' trades to address a National Requirement	Month	No. of days on which trades accepted	No. of Trade buys	No. of Trade sells	Quantity Purchased (kWh)	Quantity Sold (kWh)	Purchase cost (£)	Sell revenue (£)	Weighted Average Purchase Price (p/kWh)	Weighted Average Sell Price (p/kWh)
	No locational trades were conducted in this period to address a National Requirement.									
	'Locational' Trades									
OCM 'Locational' trades to address a Localised Requirement	Month	No. of days on which trades accepted	No. of Trade buys	No. of Trade sells	Quantity Purchased (kWh)	Quantity Sold (kWh)	Purchase cost (£)	Sell revenue (£)	Weighted Average Purchase Price (p/kWh)	Weighted Average Sell Price (p/kWh)
	Jan-10	2	7	0	41,762,618	0	969,604	0	2.3217	0

#### 7. OCM Collateralisation Costs

National Grid Gas, in its role as the residual system balancer, is required to provide collateralisation to APX Gas Ltd in order to utilise the OCM for system balancing purposes. The costs incurred by National Grid Gas to provide the collateralisation are recovered from the Users through a balancing neutrality charge.

For the period 1 April 2009 to 31 March 2010, National Grid Gas incurred OCM collateralisation costs of £89,205.