## nationalgrid

# Procurement Guidelines Report

### **UK Transmission**

For the Period 01 April 2008 – 31 March 2009

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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/">http://www.nationalgrid.com/uk/gas/</a> under 'Operational Info' > 'Procurement and Use of System Management Services' or from:

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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 2008 to 31 March 2009 inclusive.

This reporting period covers the last month of Storage Year 2007/2008 (April 2008) and the majority of Storage Year 2008/2009 (May 2008 to March 2009).

#### 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**

#### 1. 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 (15<sup>th</sup> July 2005), capacity holders at Grain provide an OM service to National Grid.

Capacity Arrangements (space and deliverability)

Month	Facility	Space (kWh)	Unit cost (p/kWh/annum)	Deliverability (kWh/d)	Unit cost (p/kWh)
Apr-08	Avonmouth LNG	213,000,000	2.0950	0	0
	Dynevor Arms LNG	116,000,000	2.8400	0	0
	Glenmavis LNG	135,000,000	1.7060	0	0
	Partington LNG	266,000,000	1.8250	0	0
	Rough	455,000,000	0.6142	0	0
	Hornsea	98,000,000	1.0515	0	0
	Hole House Farm	25,000,000	1.2033	0	0
May-08 to	Avonmouth LNG	177,000,000	1.523	0	0
Mar-09	Dynevor Arms LNG	37,000,000	2.956	0	0
	Glenmavis LNG	131,000,000	1.775	0	0
	Partington LNG	262,000,000	1.130	0	0
	Rough	455,000,125	0.3923	0	0
	Hornsea	80,000,000	1.5389	0	0
	Hole House Farm	25,000,000	1.32	0	0
Apr-08 to	Isle of Grain LNG				
Dec-08	Importation Terminal	186,000,000	6.2955	0	0
Jan-09 to	Isle of Grain LNG				_
Mar-09	Importation Terminal	93,000,000	8.7883	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 2008 and 31 March 2009.**
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 2008 – 31 March 2009, National Grid Gas (OM) did not procure this service.

**NBP** weighted

average price

(p/kWh)

National Grid Gas (OM) utilises this service to address a gas surplus at a given storage facility where National Grid Gas holds or has held Operating Margins Capacity Arrangements. National Grid Gas (OM) either issues a tender to Users to meet its requirements or withdraws gas to inject into storage facilities with an Operating Margins gas deficit. Typically, National Grid Gas invites Users to bid to buy gas either in store or at the NBP.

#### For the period 1 April 2008 – 31 March 2009, National Grid Gas (OM) procured this service as follows:

In-Store

quantity

(kWh)

NBP

quantity

(kWh)

In-store

weighted

average

**Facility** 

Month

#### Gas disposal

		, ,	, ,	price(p/kWh)	,
May-08	Avonmouth LNG	75,000,000		2.5919	
May-08	Avonmouth LNG	11,000,000		2.5591	
May-08	Dynevor Arms LNG	33,000,000		2.4609	
May-08	Glenmavis LNG	4,000,000		2.6566	
May-08	Hornsea	18,000,000		2.4056	

OM Transfer	National Grid Gas (OM) utilises this service to address a gas-in-store surplus or deficit by transferring OM gas between Storage Facilities.  For the period 1 April 2008 – 31 March 2009, National Grid Gas (OM) procured this service as follows:						
between Storage Facilities	Month	Facility Gas Transferred From	Facility Gas Transferred To	Quantity (kWh)	Transfer Fee Paid (p/kwh)		
	May-08	Dynevor Arms LNG	Partington LNG	70,871,819	0.1790		
	May-08	Avonmouth LNG	Partington LNG	82,678	0.1805		
OM Usage	For the period 1	April 2008 – 31 March 2009, I	National Grid Gas (OM	l) did not use Operating	n Margins.		

### 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 2008 and 31 March 2009, this service was procured as follows:

Month	Facility	Shipper Booked Deliverability (kWh)	Transportation Credit (p/kWh/day)
April 2008	Avonmouth LNG	156,200,000	0.0026
May 2008 to March 2009	Avonmouth LNG	156,200,000	0.0032

#### 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			Compo	nent Description a	and Details		
	For 1 Apr	il 2008 to 31 March	2009, National Gri	d procured NTS shr	rinkage via NBP t	trades as foll	ows:
		Total Quantity Purchased (kWh)	Purchase Cost (£)	Weighted Avg Purchase Price (p/kWh)	Total Quantity Sold (kWh)	Sell Revenue (£)	Weighted Avg Sell Price (p/kWh)
	Apr-08	524,718,861	£10,014,091	1.9085	39,424,263	£756,471	1.9188
	May-08	439,523,649	£8,250,485	1.8771	26,347,024	£526,207	1.9972
	Jun-08	455,655,039	£9,010,376	1.9775	1,617,840	£33,423	2.0659
	Jul-08	533,975,362	£10,986,831	2.0576	32,372,505	£702,454	2.1699
NBP Trades	Aug-08	498,513,771	£9,633,544	1.9325	66,942,516	£1,477,989	2.2078
	Sep-08	408,101,368	£8,446,250	2.0696	230,300,819	£5,405,050	2.3470
	Oct-08	594,934,130	£13,277,875	2.2318	97,304,613	£2,226,797	2.2885
	Nov-08	645,928,484	£14,400,478	2.2294	48,510,519	£924,067	1.9049
	Dec-08	739,476,747	£17,002,230	2.2992	47,100,613	£1,089,773	2.3137
	Jan-09	939,937,311	£21,770,333	2.3161	12,712,013	£265,858	2.0914
	Feb-09	1,175,361,246	£25,280,115	2.1508	35,730,132	£612,192	1.7134
	Mar-09	553,757,655	£12,973,324	2.3428	18,828,346	£206,685	1.0977

### From 1 April 2008 to 31 March 2009, National Grid's imbalance cash-out for the NTS shrinkage account was as follows:

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

Month	Quantity Purchased (under delivered) (kWh)	Purchase Cost (at SMP <sub>b</sub> ) (£)	Weighted Average Cost (p/kWh)	Quantity Sold (over delivered) (kWh)	Sell Revenue at SMP (£)	Weighted Average Revenue (p/kWh)
Apr-08	9,420,453	£200,381	2.1271	4,629,763	£97,006	2.0953
May-08	17,110,925	£352,977	2.0629	611,238	£11,970	1.9583
Jun-08	13,957,679	£288,059	2.0638	348,741	£7,435	2.1320
Jul-08	16,016,894	£318,291	1.9872	48,744	£993	2.0365
Aug-08	12,212,380	£229,806	1.8959	4,514,495	£80,445	1.7819
Sep-08	0	£0	0.0000	19,276,846	£443,761	2.3020
Oct-08	24,004,681	£344,420	1.4348	4,324,463	£78,246	1.8094
Nov-08	11,454,702	£219,068	1.9125	3,240,103	£64,664	1.9957
Dec-08	8,420,985	£165,687	1.9676	4,063,223	£75,019	1.8463
Jan-09	9,347,530	£197,671	2.1147	7,888,359	£155,088	1.9660
Feb-09	4,278,510	£56,164	1.3127	8,343,438	£151,371	1.8143
Mar-09	5,999,299	£65,401	1.0901	5,255,532	£55,696	1.0598

#### 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 (previously RGTA) entry capacity system or it may enter into Capacity Management Agreements (CMAs).

For the period 1 April 2008 – 31 March 2009, National Grid Gas procured these services as follows:

ervice Component	Component Description and Details							
	Month	ASEP	No. of days on which offers accepted	No. of offers accepted	Quantity accepted (kWh)	Weighted average price (p/kWh)		
	Apr-08	None	0	0	0	0		
	May-08	None	0	0	0	0		
	Jun-08	None	0	0	0	0		
	Jul-08	None	0	0	0	0		
uybacks on Gemini	Aug-08	None	0	0	0	0		
	Sep-08	None	0	0	0	0		
	Oct-08	None	0	0	0	0		
	Nov-08	None	0	0	0	0		
	Dec-08	None	0	0	0	0		
	Jan-09	None	0	0	0	0		
	Feb-09	None	0	0	0	0		
	Mar-09	None	0	0	0	0		

CMAs -	Options	<b>Agreements</b>
	Options	Agreements

Period	ASEP	Total Quantity Accepted (kWh)	Cost of Option (£)
Apr-08	None	0	0
May-08	None	0	0
Jun-08	None	0	0
Jul-08	None	0	0
Aug-08	None	0	0
Sep-08	None	0	0
Oct-08	None	0	0
Nov-08	None	0	0
Dec-08	None	0	0
Jan-09	Bacton	18,200,000	£23,035.80
Jan-09	St Fergus	1,600,000	£3,600.00
Feb-09	Bacton	14,600,000	£14,935.80
Mar-09	Bacton	14,600,000	£14,935.80
Mar-09	Easington	14,600,000	£14,935.80

CMAs -	Forwards
<b>A</b> areem	ents

Period	ASEP	Quantity Utilised (kWh)	Total Cost of Forward Buybacks (£)
Apr-08	None	0	0
May-08	None	0	0
Jun-08	None	0	0
Jul-08	None	0	0
Aug-08	None	0	0
Sep-08	None	0	0
Oct-08	None	0	0
Nov-08	None	0	0
Dec-08	None	0	0
Jan-09	None	0	0
Feb-09	None	0	0
Mar-09	None	0	0

	Period	ASEP	Quantity utilised (kWh)	Total Cost of utilisation (option+exercise)	No. of days on which option exercised
	Apr-08	None	0	0	0
	May-08	None	0	0	0
	Jun-08	None	0	0	0
CMAs – Options Utilisation	Jul-08	None	0	0	0
	Aug-08	None	0	0	0
	Sep-08	None	0	0	0
	Oct-08	None	0	0	0
	Nov-08	None	0	0	0
	Dec-08	None	0	0	0
	Jan-08	None	0	0	0
	Feb-08	None	0	0	0
	Mar-08	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 2008, National Grid had interruption access to 29 sites (NTS Power Stations, Industrial Sites and the Moffat Interconnector) with an aggregate potential available interruption of 892.8 GWh.
Interruption to manage NTS constraints	In addition, the NTS also had access to a potential 628.4 GWh of Interruption at the Bacton Interconnector along with 9 Storage Sites that have exit capacity on an interruptible basis available during the summer months.
	During the period 1 April 2008 to 31 March 2009, National Grid had no requirement to Interrupt to manage either NTS constraints or National Gas Supply Emergencies.

#### 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').

Service Component	Component Description and Details
OCM trades	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 2008 to 31 March 2009, National Grid carried out the following OCM trades:**

	National	'NBP Title'	Trades	·		T			1	
	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-08	11	40	80	99,028,695	202,512,067	£2,223,584	£4,115,786	2.2454	2.0324
OCM 'NBP Title'	May-08	19	112	131	247,176,083	328,356,758	£5,261,932	£6,043,109	2.1288	1.8404
rades to address	Jun-08	13	19	123	37,835,469	272,438,808	£818,584	£5,267,913	2.1635	1.9336
a National	Jul-08	12	36	91	86,690,403	184,898,501	£1,949,049	£3,588,567	2.2483	1.9408
Requirement	Aug-08	14	36	117	65,413,450	267,984,131	£1,322,483	£3,963,045	2.0217	1.4788
	Sep-08	18	84	110	203,742,965	237,621,977	£4,814,100	£5,181,155	2.3628	2.1804
	Oct-08	18	148	60	382,838,659	153,188,216	£8,399,020	£1,835,466	2.1939	1.1982
	Nov-08	18	52	137	115,294,135	353,121,257	£2,244,479	£6,739,182	1.9467	1.9085
	Dec-08	20	53	261	121,624,468	700,644,856	£2,512,399	£13,242,552	2.0657	1.8901
	Jan-09	13	18	116	46,715,517	333,426,882	£973,970	£6,789,661	2.0849	2.0363
	Feb-09	17	10	296	21,833,790	813,623,736	£474,469	£12,149,858	2.1731	1.4933
	Mar-09	14	48	129	117,345,633	368,683,324	£1,316,404	£3,814,922	1.1218	1.0347

OCM 'Physical' trades to address a National Requirement

National	l 'Physical' 1	<b>Frades</b>							
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 OCM Physical trades were conducted in this period to address a National Requirement.

OCM 'Locational' trades to address a National Requirement	National	'Locational'	' 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)
		ional trades	were co	nducted	in this period t	to address a l	National Requ	irement.		
	Location	iai iiaues		1	T			1	Weighted	

#### 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 with effect from 1<sup>st</sup> February 2008.

For the period 1 April 2008 to 31 March 2009, National Grid Gas incurred OCM collateralisation costs of £36,700.