

Procurement Guidelines Report

UK Transmission

For the Period

01 April 2007 – 31 March 2008

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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 <http://www.nationalgrid.com/uk/gas/> 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 2007 to 31 March 2008 inclusive.

This reporting period covers the last month of Storage Year 2006/2007 (April 2007) and the majority of Storage Year 2007/2008 (May 2007 to March 2008).

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

Capacity (space and deliverability)

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 2007 – 31 March 2008, National Grid Gas (OM) procured Storage Capacity as follows:

Month	Facility	Space (kWh)	Unit cost (p/kWh/annum)	Deliverability (kWh/d)	Unit cost (p/kWh)
Apr-07	Avonmouth LNG	350,000,000	1.1700	0	0
	Dynevor Arms LNG	160,000,000	2.2720	0	0
	Glenmavis LNG	135,000,000	1.3650	0	0
	Isle of Grain LNG Importation Terminal	186,000,000	5.1869	0	0
	Partington LNG	266,000,000	0.8690	0	0
	Rough	455,000,000	0.4441	0	0
	Hornsea	98,000,000	0.2000	0	0
	May-07 to Mar-08	Avonmouth LNG	213,000,000	2.0950	0
Dynevor Arms LNG		116,000,000	2.8400	0	0
Glenmavis LNG		135,000,000	1.7060	0	0
Isle of Grain LNG Importation Terminal		186,000,000	5.1869	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
Storage Capacity Overruns	Avonmouth LNG	50,093,752	1.3597	0	0
	Dynevor Arms LNG	24,871,819	1.8432	0	0

Storage Capacity overrun costs were incurred as a result of re-optimising the operating margins gas stocks during the winter.

<p>Gas-in-storage 'Swap' tender</p>	<p>National Grid Gas (OM) utilises this service to address OM gas 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.</p> <p><i>No Gas-in-storage SWAP tenders have been made between April 2007 and March 2008.</i></p>																																										
<p>Gas procurement</p>	<p>National Grid Gas (OM) utilises this service to address an Operating Margins gas deficit at a given storage facility. 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).</p> <p><i>For the period 1 April 2007 – 31 March 2008, National Grid Gas (OM) procured this service as follows:</i></p> <table border="1"> <thead> <tr> <th>Month</th> <th>Facility</th> <th>In-store quantity (kWh)</th> <th>NBP quantity (kWh)</th> <th>In-store weighted average price (p/kWh)</th> <th>NBP weighted average price (p/kWh)</th> </tr> </thead> <tbody> <tr> <td>May-07</td> <td>Avonmouth LNG</td> <td>6,388,926</td> <td></td> <td>0.8208</td> <td></td> </tr> <tr> <td>May-07</td> <td>Hole House Farm</td> <td>25,000,000</td> <td></td> <td>0.5221</td> <td></td> </tr> <tr> <td>Dec-07</td> <td>Avonmouth LNG</td> <td></td> <td>3,121,130</td> <td></td> <td>1.2417</td> </tr> <tr> <td>Dec-07</td> <td>Dynevor LNG</td> <td></td> <td>16,673,639</td> <td></td> <td>1.2417</td> </tr> <tr> <td>Jan-08</td> <td>Avonmouth LNG</td> <td></td> <td>46,972,622</td> <td></td> <td>1.2417</td> </tr> <tr> <td>Jan-08</td> <td>Dynevor LNG</td> <td></td> <td>8,198,180</td> <td></td> <td>1.2417</td> </tr> </tbody> </table>	Month	Facility	In-store quantity (kWh)	NBP quantity (kWh)	In-store weighted average price (p/kWh)	NBP weighted average price (p/kWh)	May-07	Avonmouth LNG	6,388,926		0.8208		May-07	Hole House Farm	25,000,000		0.5221		Dec-07	Avonmouth LNG		3,121,130		1.2417	Dec-07	Dynevor LNG		16,673,639		1.2417	Jan-08	Avonmouth LNG		46,972,622		1.2417	Jan-08	Dynevor LNG		8,198,180		1.2417
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<p>Gas disposal</p>	<p>National Grid Gas (OM) utilises this service to address a gas surplus at a given storage facility. 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.</p> <p><i>For the period 1 April 2007 – 31 March 2008, National Grid Gas (OM) procured this service as follows:</i></p> <table border="1"> <thead> <tr> <th>Month</th> <th>Facility</th> <th>In-Store quantity (kWh)</th> <th>NBP quantity (kWh)</th> <th>In-store weighted average price(p/kWh)</th> <th>NBP weighted average price (p/kWh)</th> </tr> </thead> <tbody> <tr> <td>May-07</td> <td>Avonmouth LNG</td> <td>137,000,000</td> <td></td> <td>0.7338</td> <td></td> </tr> <tr> <td>May-07</td> <td>Dynevor LNG</td> <td>44,000,000</td> <td></td> <td>0.6411</td> <td></td> </tr> <tr> <td>Dec-07</td> <td>Partington LNG</td> <td>12,072,452</td> <td></td> <td>0.8557</td> <td></td> </tr> <tr> <td>Dec-07</td> <td>Partington LNG</td> <td>7,722,317</td> <td></td> <td>0.8557</td> <td></td> </tr> <tr> <td>Jan-08</td> <td>Partington LNG</td> <td>55,170,802</td> <td></td> <td>0.8557</td> <td></td> </tr> </tbody> </table>	Month	Facility	In-Store quantity (kWh)	NBP quantity (kWh)	In-store weighted average price(p/kWh)	NBP weighted average price (p/kWh)	May-07	Avonmouth LNG	137,000,000		0.7338		May-07	Dynevor LNG	44,000,000		0.6411		Dec-07	Partington LNG	12,072,452		0.8557		Dec-07	Partington LNG	7,722,317		0.8557		Jan-08	Partington LNG	55,170,802		0.8557	
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<p>OM Transfer between Storage Facilities</p>	<p>National Grid Gas (OM) utilises this service to address a gas surplus or deficit by transferring OM gas between Storage Facilities.</p> <p><i>For the period 1 April 2007 – 31 March 2008, National Grid Gas (OM) did not procure any OM transfers between Storage Facilities.</i></p>																																				
<p>OM Usage</p>	<p><i>For the period 1 April 2007 – 31 March 2008, National Grid Gas (OM) did not use Operating Margins.</i></p>																																				

2. Constrained Storage

The purpose of a constrained storage service is to economically meet 1 in 20 capacity obligations at the Network extremities.

Between April 2007 and March 2008, this service was procured as follows:

Month	Facility	Shipper Booked Deliverability (kWh)	Transportation Credit (p/kWh/day)
April 2007	Avonmouth LNG	156,066,840	0.0057
May 2007 to March 2008	Avonmouth LNG	156,200,000	0.0026

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						
NBP Trades	<i>For 1 April 2007 to 31 March 2008, National Grid procured NTS shrinkage via NBP trades as follows:</i>						
		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-07	417,010,173	£4,300,898	1.0314	104,030,443	£547,049	0.5259
	May-07	435,943,190	£3,902,700	0.8952	133,376,271	£918,597	0.6887
	Jun-07	374,422,750	£2,998,745	0.8009	156,273,293	£1,138,746	0.7287
	Jul-07	492,615,144	£4,211,807	0.8550	3,192,714	£34,885	1.0926
	Aug-07	421,846,522	£3,571,327	0.8466	177,946,098	£1,775,656	0.9979
	Sep-07	450,450,249	£3,835,155	0.8514	116,343,449	£1,421,428	1.2218
	Oct-07	479,903,871	£7,474,700	1.5575	168,818,318	£2,130,277	1.2619
	Nov-07	484,274,421	£7,799,215	1.6105	154,286,767	£2,466,545	1.5987
	Dec-07	757,619,821	£12,941,799	1.7082	5,859,046	£96,178	1.6415
	Jan-08	694,132,025	£13,173,613	1.8979	11,831,482	£206,147	1.7424
	Feb-08	580,310,139	£10,727,589	1.8486	4,748,718	£89,820	1.8915
	Mar-08	720,570,463	£13,432,329	1.8641	17,107,404	£313,105	1.8302

From 1 April 2007 to 31 March 2008, National Grid's imbalance cash-out for the NTS shrinkage account was as follows:

Month	Quantity Purchased (under delivered) (kWh)	Purchase Cost (at SMP_b) (£)	Weighted Average Cost (p/kWh)	Quantity Sold (over delivered) (kWh)	Sell Revenue at SMP (£)	Weighted Average Revenue (p/kWh)
Apr-07	5,787,303	£35,613	0.6154	5,675,026	£30,664	0.5403
May-07	1,849,800	£14,453	0.7813	4,559,328	£33,484	0.7344
Jun-07	0	£0	0	9,460,491	£67,798	0.7166
Jul-07	10,047,144	£103,091	1.0261	270,851	£2,936	1.0841
Aug-07	12,717,284	£123,953	0.9747	10,471,181	£101,050	0.9650
Sep-07	5,940,145	£68,324	1.1502	5,058,887	£59,116	1.1686
Oct-07	2,160,439	£37,510	1.7362	7,096,471	£85,204	1.2006
Nov-07	8,805,698	£102,051	1.1589	8,142,191	£127,952	1.5715
Dec-07	19,263,853	£336,165	1.7451	856,384	£12,886	1.5046
Jan-08	8,384,815	£159,916	1.9072	3,174,999	£54,334	1.7113
Feb-08	10,289,149	£184,447	1.7926	1,579,641	£26,679	1.6889
Mar-08	6,270,271	£121,730	1.9414	5,287,197	£94,147	1.7807

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 2007 – 31 March 2008, National Grid Gas procured these services as follows:

Service Component	Component Description and Details					
Buybacks on Gemini	Month	ASEP	No. of days on which offers accepted	No. of offers accepted	Quantity accepted (kWh)	Weighted average price (p/kWh)
	Apr-07	Bacton	7	7	126,000,000	0
	May-07	Bacton	3	3	33,000,000	0
	Jun-07	None	0	0	0	0
	Jul-07	None	0	0	0	0
	Jul-07	None	0	0	0	0
	Aug-07	None	0	0	0	0
	Sep-07	None	0	0	0	0
	Oct-07	None	0	0	0	0
	Nov-07	None	2	2	80,000,000	0
	Dec-07	None	0	0	0	0
	Jan-08	None	0	0	0	0
	Feb-08	None	0	0	0	0
Mar-08	None	0	0	0	0	

CMA – Options Agreements	Period	ASEP	Total Quantity Accepted (kWh)	Cost of Option (£)
	Apr-07	None	0	0
	May-07	None	0	0
	Jun-07	None	0	0
	Jul-07	None	0	0
	Aug-07	None	0	0
	Sep-07	None	0	0
	Oct-07	None	0	0
	Nov-07	Easington	2,900,000	£21,750
	Dec-07	None	0	0
	Jan-08	None	0	0
	Feb-08	Bacton	7,300,000	£3,745
	Mar-08	Bacton	7,300,000	£3,745

CMA – Forwards Agreements

Period	ASEP	Quantity Utilised (kWh)	Total Cost of Forward Buybacks (£)
Apr-07	None	0	0
May-07	None	0	0
Jun-07	None	0	0
Jul-07	None	0	0
Aug-07	None	0	0
Sep-07	None	0	0
Oct-07	Milford Haven	100,000,000	£285,200
Nov-07	Milford Haven	100,000,000	£276,000
Nov-07	Hatfield Moors Storage	14,900,000	£5,811
Dec-07	Milford Haven	100,000,000	£285,200
Dec-07	Hatfield Moors Storage	14,900,000	£18,014
Jan-08	Milford Haven	350,000,000	£987,350
Jan-08	Hatfield Moors Storage	14,900,000	£21,709
Feb-08	Milford Haven	350,000,000	£923,650
Feb-08	Hatfield Moors Storage	14,900,000	£20,309
Mar-08	Hatfield Moors Storage	14,900,000	£18,014

CMA – Options Utilisation	Period	ASEP	Quantity utilised (kWh)	Total Cost of utilisation (option+exercise) (£)	No. of days on which option exercised
	Apr-07	None	0	0	0
	May-07	None	0	0	0
	Jun-07	None	0	0	0
	Jul-07	None	0	0	0
	Aug-07	None	0	0	0
	Sep-07	None	0	0	0
	Oct-07	None	0	0	0
	Nov-07	None	0	0	0
	Dec-07	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
<p>Interruption to manage NTS constraints</p>	<p>On 1 April 2007, National Grid had interruption access to 22 sites (NTS Power Stations, Industrial Sites and the Moffat Interconnector) with an aggregate potential available interruption of 607.34 GWh.</p> <p>In addition, the NTS also had access to a potential 602.22 GWh of Interruption at the Bacton Interconnector and 9 Storage Sites, but this Interruption was in the main only available in the summer months.</p> <p><i>During the period 1 April 2007 to 31 March 2008, National Grid had no requirement to Interrupt to manage either NTS constraints or National Gas Supply Emergencies.</i></p>

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	<p>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.</p> <p><i>During the period 1 April 2007 to 31 March 2008, National Grid carried out the following OCM trades:</i></p>

OCM 'NBP Title' trades to address a National Requirement	National '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-07	9	90	53	312,941,216	150,286,810	£1,968,758	£680,844	0.6291	0.4530
	May-07	15	134	23	356,462,259	58,057,367	£3,050,420	£345,565	0.8557	0.5952
	Jun-07	14	159	7	511,614,048	15,093,157	£4,119,394	£112,495	0.8052	0.7453
	Jul-07	16	71	49	200,343,339	132,321,559	£2,246,006	£1,153,341	1.1211	0.8716
	Aug-07	15	106	16	255,206,235	41,352,320	£2,666,401	£376,648	1.0448	0.9108
	Sep-07	16	96	81	225,225,068	229,357,368	£3,011,721	£2,204,131	1.3372	0.9610
	Oct-07	11	59	70	143,751,328	158,522,108	£1,974,165	£1,840,226	1.3733	1.1609
	Nov-07	17	124	89	301,540,758	263,294,991	£4,801,604	£4,307,666	1.5924	1.6361
	Dec-07	20	47	265	111,630,748	631,245,637	£2,041,039	£10,292,482	1.8284	1.6305
	Jan-08	19	59	215	131,647,497	610,437,596	£2,492,158	£11,134,993	1.8931	1.8241
Feb-08	12	16	219	39,124,979	546,723,958	£700,825	£9,455,847	1.7912	1.7295	
Mar-08	15	71	172	171,182,772	506,866,302	£3,269,057	£9,130,604	1.9097	1.8014	
OCM 'Physical' trades to address a National Requirement	National 'Physical' 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)
<i>No OCM Physical trades were conducted in this period to address a National Requirement.</i>										

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)
	<i>No locational trades were conducted in this period to address a National Requirement.</i>									
OCM 'Locational' trades to address a Localised Requirement	'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)
	<i>No locational trades were conducted in this period to address a Localised Requirement.</i>									

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 1st February 2007.

For the period 1st April 2007 to 31st March 2008, National Grid Gas incurred OCM collateralisation costs of £38,333.