REACTIVE POWER MARKET

REACTIVE MARKET REPORT

TWENTY SECOND TENDER ROUND FOR OBLIGATORY AND ENHANCED REACTIVE POWER SERVICES

FOR REACTIVE MARKET AGREEMENTS EFFECTIVE 1 APRIL 2009

8th May 2009

Network Operations
National Grid
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

nationalgrid

Executive Summary

23rd Tender Round

This report describes the 23rd Tender Round evaluation process for Reactive Power Market Agreements for service commencement on 1 April 2009. This report would normally include the prices and reactive capability data of the successful tenders, however, as there were no successful tenders no such data is available. The report also includes metered Mvarh utilisation from all eligible service providers for the period 1 October 2008 to 31 March 2009. Estimates of the reactive contribution of the GB Transmission System for the same period are also included.

National Grid evaluated all the tenders received against both economic purchase and technical performance criteria in accordance with the agreed terms of the market mechanism.

The main points are as follows:

- Tenders were received from 22 BM Units representing 10 power stations from 6 Generating Companies of which all 22 were in respect of the Grid Code Obligatory Reactive Power Service
- Tenders were offered for a duration of 12 months
- Tenders were received from both portfolio and independent Generating Companies
- National Grid has rejected all of the 22 tenders evaluated
- There are a total 3 BM Units on Market Agreements for the period 1 April 2009 to 30 September 2009, all from the previous 22nd tender round

The next market day for Reactive Power Market Agreements commencing on 1 October 2009 will be 15 May 2009. Invitation to Tender (ITT) Documentation for this Tender Round 24 has been available on the National Grid Industry Information website since 13 March 2009.

Contents

1. Introduction

1.1 This market report provides information on the results from the assessment process carried out for Reactive Power Tender Round 23 (for contracts that commenced 1 April 2009). This includes details on the contractual position for the provision of Reactive Power Services to the GB Transmission System as at 1 April 2009.

1.2 National Grid manages the voltage of the GB supergrid system to meet Transmission Licence requirements for secure and stable power transmission and to ensure quality of supply to customers. Voltages are largely determined by the flows of Reactive Power on the system. National Grid ensures that Reactive Power is provided on a local basis to meet the constantly varying needs of the system and that there is sufficient Reactive Power reserves available to meet contingencies.

1.3 Generating Units provide Reactive Power Capability, and are capable of varying their Reactive Power output as a requirement of the Grid Code. The power system itself has inherent Reactive Power gains and losses, which vary in accordance with changes in real power flows and voltage. National Grid installs reactive compensation plant in parts of the system where there is insufficient generator reactive capability to meet licence requirements, and where voltages cannot be regulated effectively or economically by other means.

1.4 Dynamic reserves of Reactive Power are essential for system operation. National Grid values capability based Reactive Power Market Agreements as this payment mechanism helps to ensure that the availability of post-fault Reactive Power reserves is maintained.

1.5 Tender Round 23 was undertaken to secure such capability based Reactive Power Market Agreements from 1 April 2009. The service definitions, requirements and contract terms may be found in Schedule 3 to the Connection & Use of System Code (CUSC), the Grid Code and the ITT (Invitation to Tender) Documentation. These can be accessed via National Grid's industry website at: http://www.nationalgrid.com/uk/Electricity/Balancing/services/ReactivePower/marketender/

2. Tender Process

2.1 On 14 November 2008, National Grid Electricity Transmission plc held the Market Day for the Reactive Power Tender Round 23. This enabled any potential provider that fulfilled the qualification criteria specified in Schedule 3 of the CUSC to tender for a Reactive Power Market Agreement.

2.2 Tenderers could elect to choose the term of tenders from a minimum period of 12 months and thereafter in 6-month increments (12, 18, 24, 30, 36 months, etc.).

2.3 Tenderers who submitted tenders for periods greater than 12 months were also able to include indexation criteria on the tendered prices to be applied to any period(s) beyond the first 12 months.

2.4 Tenderers could tender for either the ORPS and/or the Enhanced Reactive Power Service (ERPS), as defined in Schedule 3 of the CUSC.

2.5 Potential tenderers comprised the following:

- Generators required to provide the minimum Grid Code ORPS and already in receipt of the Default Payment Mechanism, who wished to tender for alternative payment terms for the ORPS.

- Generators that had a reactive capability in excess of the minimum Grid Code ORPS, known as the "Grid Code plus Enhanced Reactive Power Service" (Grid Code ERPS).

- Any other eligible Service Provider able to offer other plant or apparatus that could generate or absorb Reactive Power, known as ERPS. The only requirement was that these Service Providers had to fulfil the market qualification criteria and have been capable of making their capability available for use by National Grid.

3. Tenders Submitted

3.1 A total of 22 discrete tender submissions were received, representing 6 generating companies and 10 power stations. 22 tenders were for BM Units offering the Grid Code ORPS service; and no tenders were received for the Grid Code ERPS service. All tenders offered contract duration of 12 months.

3.2 Tenders were received from directly connected power stations, from both portfolio and independent generating companies. No tenders were received from non-BM providers.

3.3 Not all of the tenders received sought reactive capability based payments but all sought utilisation payments.

3.4 All tenders that were evaluated were compliant with the submission criteria specified in Schedule 3 of the CUSC.

4. Tender Assessment

4.1 Tender assessment was carried out in accordance with the evaluation criteria specified in Appendix 6 of Schedule 3 of the CUSC. Details of this are more fully described in Appendix 6 of this report.

4.2 This assessment included input from the Reactive Power Capability Index updated from that shown in Appendix A of the Invitation to Tender & Guidance Notes for Completion of Tenders that was included in the ITT Documentation. The purpose of this index is to provide an indication of the Reactive Power requirement in each of the zones defined. These requirements are based on the historic need for Reactive Power in the zones and any planned changes to the GB Transmission System (or the generation and demand connected to it) that are likely to affect the zonal reactive requirement.

4.3 Tenders were assessed via a process, which considered the following:

- Economics (i.e. cost of market compared with default),
- The intrinsic capability value of the tendered reactive service (against the alternative of National Grid reactive assets);
- A number of other criteria, for example how competitive the utilisation price was, and what incentive the Generator was placing on itself to maintain the reactive capability.

Please refer to Appendix 6 in Schedule 3 of the CUSC for full details on the qualification and evaluation criteria.

5. Tender Observations

5.1 This tender round received 22 tender submissions from eligible BM Units.

5.2 All received tenders were for a 12 month period.

5.3 The Mvar capability banding remained unchanged for the majority of BM Units (14 out of the 22). Different BM Units placed different value across the payment structure of Available Capability, Synchronised Capability and Utilisation.

5.4 Similar to previous tender rounds, tenderers submitted utilisation prices that reflected the trends in Default price.

5.5 All tenders continued to seek capability worth with non-zero Available Capability prices submitted. 9 of the 22 tenders also submitted non-zero Synchronised Capability prices. There was significant variation between the emphasis placed on Available Capability and Synchronised Capability prices between the tenders.

5.6 In general, and especially for typical ORPS providers, Synchronised capability is more useful to National Grid than Available capability, but the valuation of the two differs, depending on the total time for which the BM Unit is synchronised and when this occurs. National Grid places higher value on tenders with high synchronised capability prices compared with Available Capability prices if the plant tends to run less frequently but at times of high system need. Conversely, National Grid places a lower value on tenders with relatively high Synchronised Capability prices if the plant is expected to run for a large part of the assessment period, as this is more likely to include significant periods when the capability is not essential to secure the transmission system.

5.7 This tender round, as with previous ones, has taken into account our views on expected utilisation of generating units in the energy market. We continued to factor in our view of the likely running under emissions trading and other market changes.

6. Assessment Results

6 Of the 22 tenders evaluated, National Grid offered Reactive Market Agreements to none (an acceptance rate of 0%).

6.1 Tenders were scored against the specified assessment criteria and Figure 1 below shows the attractiveness of tenders from the assessment outcome. The tenders at the accepted side of Figure 1 were assessed with a positive score indicating they should be offered Market Agreements. Likewise the tenders at the rejected side of Figure 1 were assessed with a negative score indicating they should not be offered a Market Agreement. The tenders at either end of these measures were considered to be very "attractive" or "unattractive". Those considered unattractive could, for example, have sought capability payments significantly above expectations of default payments and National Grid's value of capability.

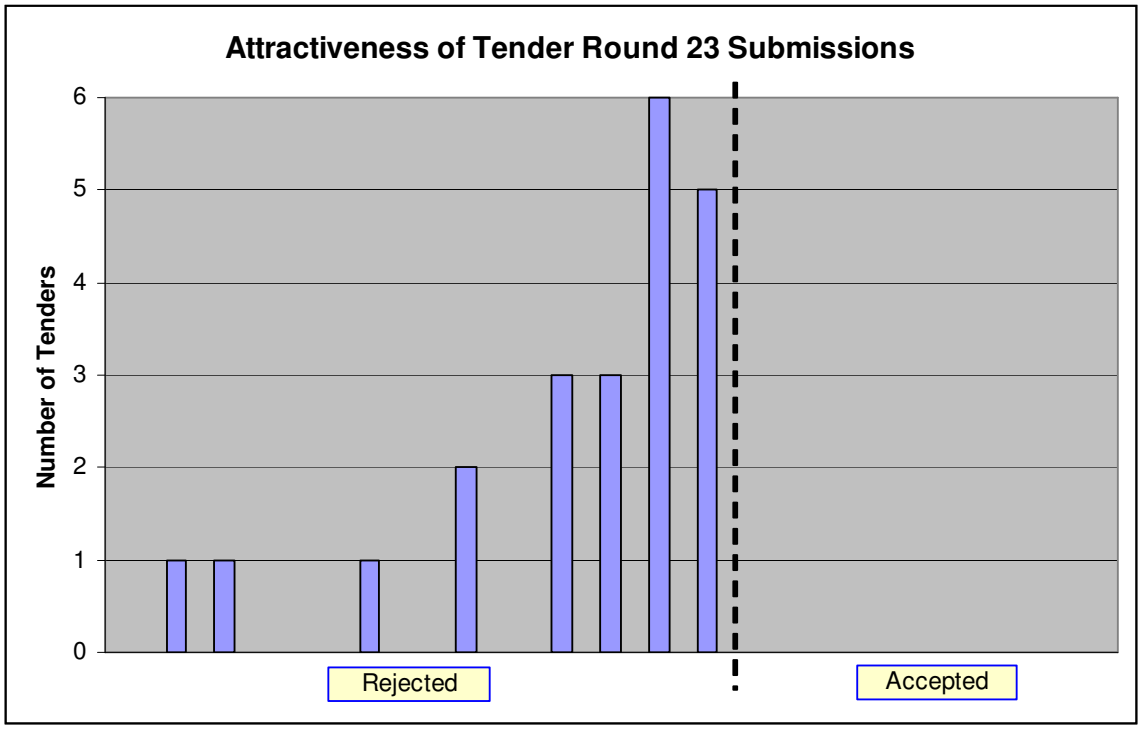


Figure 1

6.2 A complete list of all generator BM Units as at 1 April 2009 obliged under the Grid Code to be capable of providing the ORPS is given in Appendix 2. This list includes a record of which BM Units are on Reactive Power Market Agreements and which are on the Default Payment Mechanism (DPM).

6.3 Appendix 3 provides a list of BM Units on Market Agreements applicable as at 1 April 2009 showing when the agreements will terminate.

6.4 Appendix 7 shows the geographic distribution of BM Units on market and default agreements.

6.5 Details of the successful tenders that proceeded to contract commencing 1 April 2009 are listed in Appendix 4.

7 Comparisons with previous Tender Rounds

7.1 Figure 2 below shows the percentage participation of eligible BM Units for all Tender Rounds since the commencement of the Reactive Power Market. Tender Round 23 follows a recent trend of decreasing numbers of participants within the reactive market.

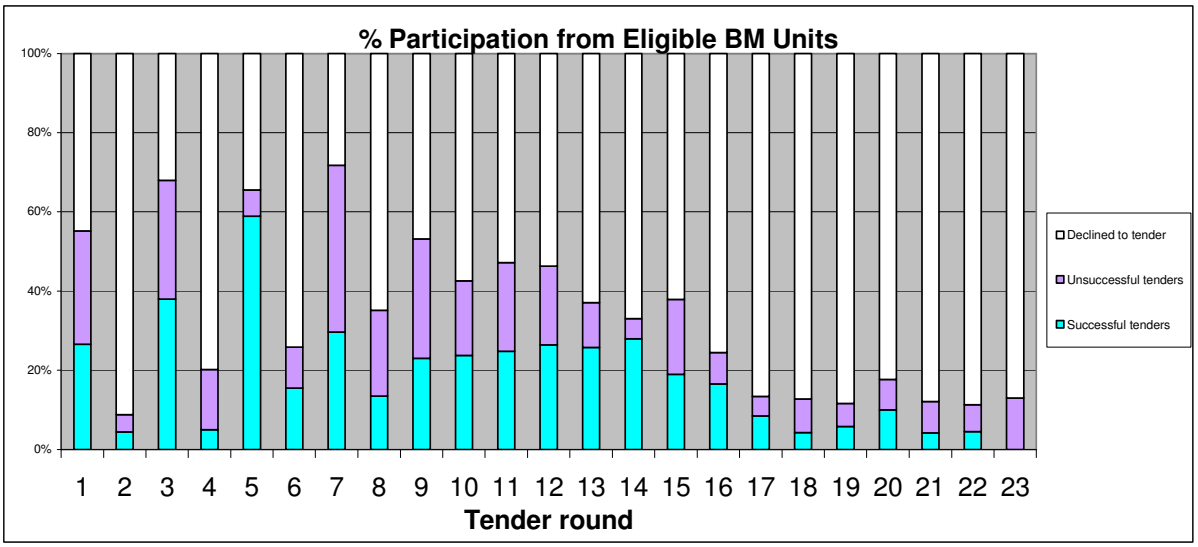


Figure 2 (Source: Appendix 1)

7.2 Figure 3 shows the acceptance rate for all Tender Rounds since the commencement of the Reactive Power Market.

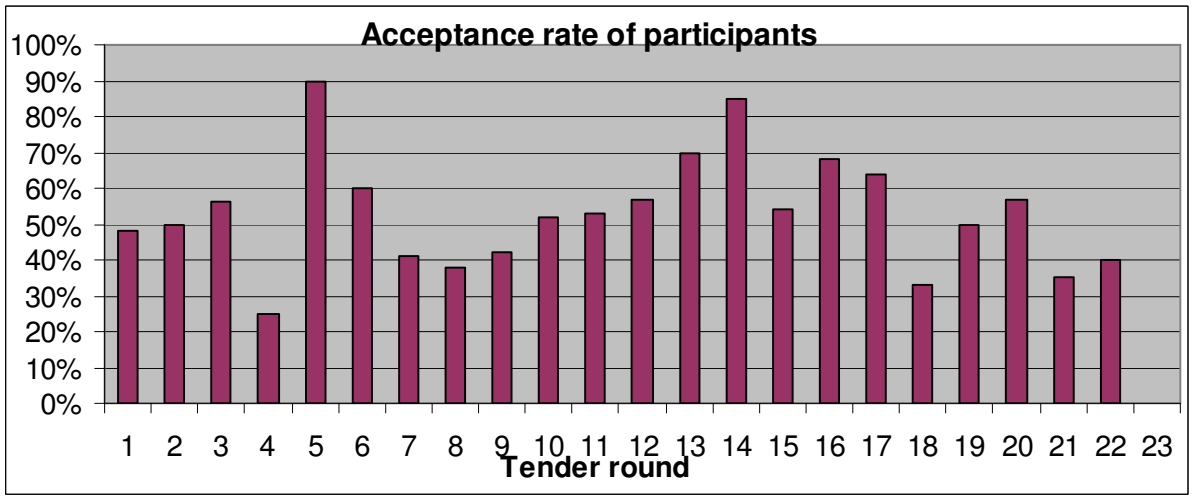


Figure 3 (Source: Appendix 1)

7.3 On 1 April 2009 there are a total of 3 BM Units on Reactive Power Market Agreements, all from Tender Round 22. This information is shown in Figure 4 in percentage terms, including comparison with BM Units on default payment

arrangements that are eligible to tender for a Market Agreement.

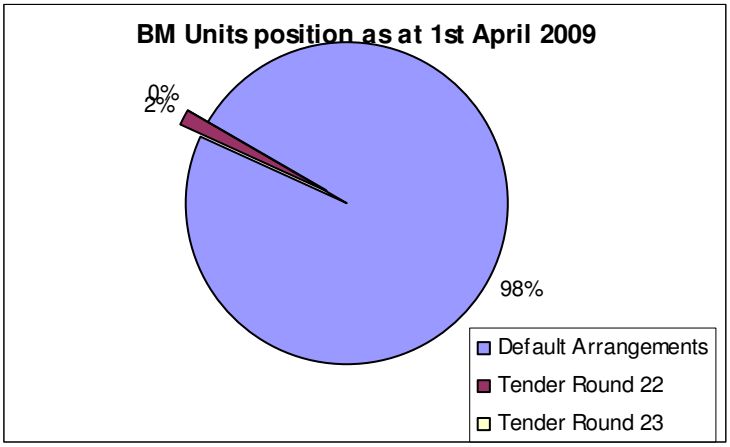


Figure 4 (Source: Appendix 2)

7.4 Figure 5 shows the percentage of eligible BM Units on a Reactive Power Market Agreement as at 1 April 2009 on a regional basis.

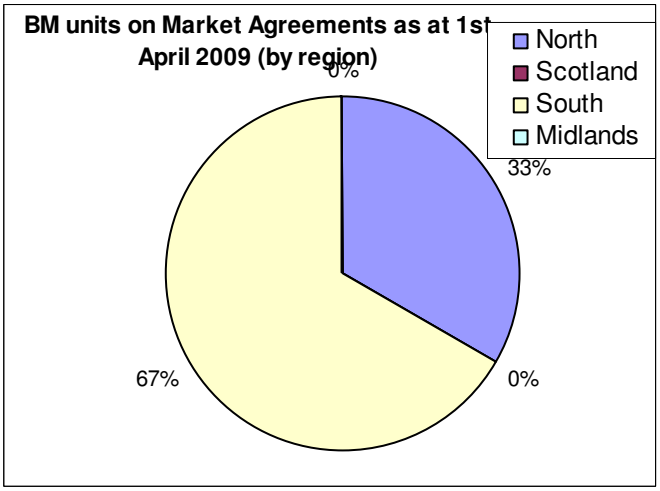


Figure 5 (Source: Appendix 2)

7.5 Figure 6 shows the percentage of total available lagging capability that has been contracted via Reactive Power Market Agreements since the commencement of the Reactive Power Market.

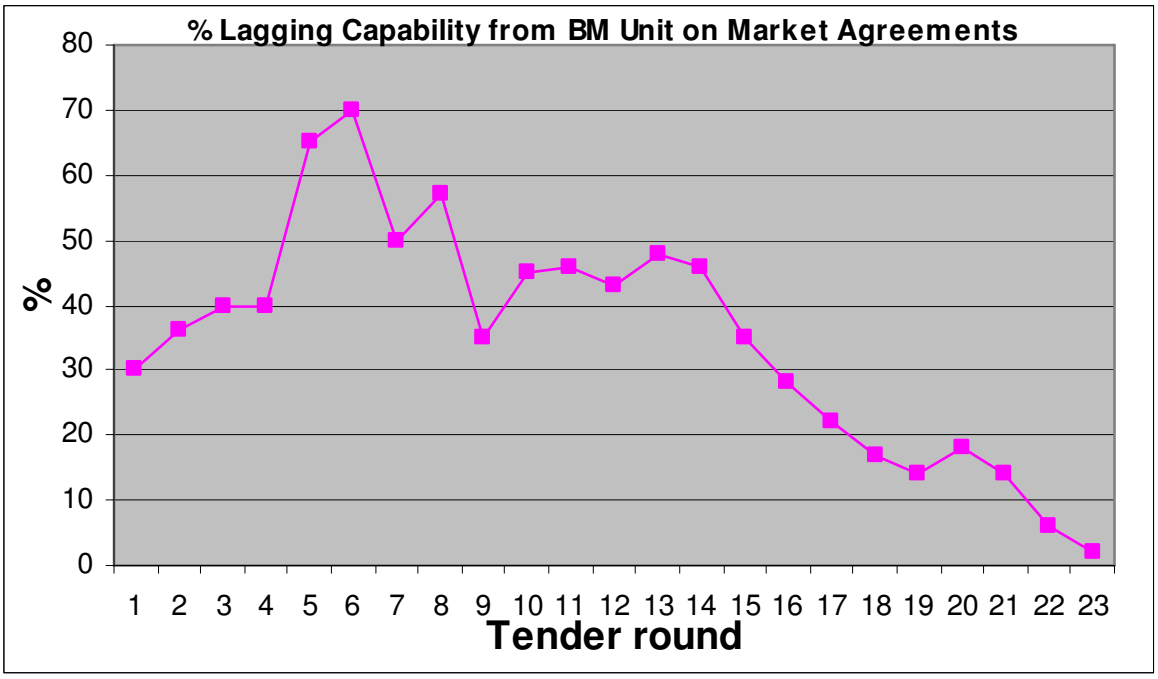


Figure 6 (Source: Appendix 1)

8. Generating Unit Reactive MVArh Utilisation

8.1 This section summarises a six-month breakdown of metered BM Unit Reactive Power utilisation over the period 1 October 2008 to 31 March 2009.

8.2 Table 1 shows the MVArh utilisation volumes (Lead plus Lag) for all eligible BM Units on a monthly basis. A breakdown by individual BM Unit for the period October 2008 to March 2009 is provided in Appendix 5.

Utilisation Volume (MVArh)

Month	Default Payment Mechanism	Market Agreements	Total = Market Agreements + DPM
Oct-08	1,356,485	107,251	1,463,736
Nov-08	1,355,089	96,032	1,451,121
Dec-08	1,554,449	83,627	1,638,076
Jan-09	1,492,333	72,546	1,564,879
Feb-09	1,373,636	64,305	1,437,942
Mar-09	1,492,910	70,273	1,563,184
Total	**8,624,902**	**494,035**	**9,118,937**

Table 1 – Summary of Generator Reactive Utilisation Oct 08 – Mar 09

8.3 Table 2, on the next page, shows six-monthly utilisation totals since 1996, sorted by the Seven Year Statement defined regions – North, Midlands and South up to March 2005 and from April 2005 onwards – Scotland, North, Midlands and South.

8.4 The volumes set out in Table 2 refer to all BM Units eligible for a Reactive Utilisation Payment (default plus market). MVArh lag and MVArh lead are calculated according to the aggregation methodology described within Appendix 2 in Schedule 3 of the CUSC and also within the companion document "Methodology Document for the Aggregation of Reactive Power Metering" by which reactive utilisation payments are made.

8.5 The reduction over the last 10 years is attributable to more distributed generation and lower power flows across the system that has resulted in a reduction in reactive losses on the supergrid and hence the reactive utilisation required from generation.

Table 2 – Generator Reactive Utilisation (TVArh) by region

	NORTH		MIDLANDS		SOUTH		TOTAL		
	lead	lag	lead	Lag	Lead	lag	Lead	lag	Lead + lag
Apr96 – Sep96	2.86	9.79	0.37	1.94	1.49	2.29	4.72	14.02	18.74
Oct96 – Mar97	2.72	12.71	0.36	3.07	1.74	2.72	4.82	18.50	23.32
Apr97 – Sep97	2.89	8.65	0.41	1.60	1.87	1.77	5.17	12.02	17.19
Oct97 – Mar98	2.78	10.67	0.31	3.07	1.54	2.01	4.63	15.75	20.38
Apr98 – Sep98	1.96	7.68	0.44	2.02	1.85	1.51	4.25	11.20	15.45
Oct98 – Mar99	1.71	9.54	0.36	2.07	1.65	1.66	3.76	13.48	17.24
Apr99 – Sep99	1.77	7.25	0.37	1.52	1.27	1.40	3.40	10.20	13.60
Oct99 – Mar00	1.98	10.45	0.27	2.13	1.35	2.19	3.60	14.77	18.37
Apr00 – Sep00	1.44	6.31	0.48	1.69	1.59	1.32	3.51	9.32	12.83
Oct00 – Mar01	1.52	7.40	0.40	2.72	1.48	1.73	3.40	11.85	15.25
Apr01 – Sep01	1.80	4.59	0.50	1.76	1.94	1.18	4.24	7.53	11.77
Oct01 – Mar02	1.70	5.79	0.58	3.07	1.50	1.78	3.79	10.65	14.44
Apr02 – Sep02	1.59	4.70	0.52	0.95	1.76	1.20	3.87	6.85	10.72
Oct02 – Mar03	1.71	5.73	0.47	2.51	1.53	1.78	3.71	10.02	13.73
Apr03 – Sep03	1.40	3.96	0.56	1.59	1.92	1.36	3.88	6.91	10.79
Oct03 – Mar04	2.28	5.48	0.34	1.89	1.69	2.29	4.31	9.66	13.97
Apr04 – Sep04	2.26	3.97	0.85	1.08	2.16	1.29	5.27	6.34	11.61
Oct04 – Mar05	1.89	5.26	0.66	1.84	1.85	1.99	4.40	9.09	13.49

	SCOTLAND		NORTH		MIDLANDS		SOUTH		TOTAL		
	lead	**lag**	**Lead**	**lag**	**lead**	**Lag**	**lead**	**lag**	**Lead**	**lag**	**Lead + lag**
Apr05 – Sep05	1.32	0.39	2.07	3.28	0.83	1.04	2.07	1.03	6.29	5.74	12.03
Oct05 – Mar06	1.06	0.80	2.10	4.56	0.76	1.91	1.88	1.48	5.80	8.75	14.55
Apr06 – Sep06	1.09	0.56	2.29	3.00	0.74	0.67	1.79	0.87	5.91	5.09	11.00
Oct06 – Mar07	0.74	0.96	2.49	4.27	0.57	1.17	1.79	1.18	5.59	7.58	13.17
Apr 07 – Sep 07	1.04	0.31	2.30	2.63	0.64	0.69	1.63	0.74	5.61	4.39	10.00
Oct 07 – Mar 08	1.17	0.53	2.28	3.98	0.64	0.74	1.49	1.08	5.58	6.33	11.90
Apr 08 – Sep 08	1.27	0.31	1.84	2.15	0.59	0.44	1.24	0.61	4.95	3.50	8.45
Oct 08 – Mar 09	1.63	0.55	1.85	1.89	0.60	0.64	1.18	0.79	5.26	3.86	9.12

9. Estimates of the reactive contribution of the GB Transmission System for October 2008 to April 2009

9.1 National Grid is required by Schedule 3 of the CUSC to 'use all reasonable endeavours' to provide estimates of the Reactive Power absorption and generation in MVArh by the GB Transmission System for the six-month period ending 31 March 2009.

9.2 This has been approached in two stages:

- The net Reactive Power utilisation (TVArh) of the GB Transmission System has been derived from the difference between the reactive output of generating units and the Net Reactive Demand at Grid Supply Points (GSPs). This is shown in Table 3 where the accuracy of the data is consistent with the underlying meter readings. The generation figures are a national monthly summation of the Settlements figures given in Appendix 5. At this stage, the data in Table 3, on the next page, may be subject to amendment via accruals or any outstanding disputes.

- The net TVArh described above has been broken down by Transmission System component and is also shown in Table 3. It should be noted that this information is based on estimates and operational records only. The 'net reactive demand at GSP' figures have been derived from operational records. The figures shown are net, i.e. lagging demand minus leading demand, and in the case of the figures in Table 3 they show lagging demand in each month. These figures represent the net effect of the consumer demand plus the LV losses minus the LV gain.

9.3 The simple reactive balance found in Table 3 can be described by the equation:

|Generation Net TVArh| = |Net Reactive Demand at GSPs TVArh| - |Net System TVArh|

From Table 3 it can be seen that the TVArh contribution from generation is small compared with the other components of the equation.

9.4 The more detailed breakdown found in Table 3 can be described by the following equation:

- Generation Net TVArh = Net Reactive Demand at GSPs - HV network shunt gain (BV^2) + HV network series loss (I^2X) + SGT series loss (I^2X_t) - Shunt capacitor gain - net SVC output + Shunt reactor loss.

Table 3 - Net System Effect Oct 08 to Mar 09

Component (TVArh)	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	6 month total
MSC	1.63	1.46	1.38	1.69	1.46	1.54	9.16
Shunt Reactor	-2.31	-2.51	-2.96	-2.44	-2.04	-2.44	-14.70
SVC generation	0.06	0.07	0.09	0.11	0.09	0.08	0.50
SVC absorption	-0.12	-0.10	-0.10	-0.09	-0.11	-0.14	-0.66
HV network shunt gain	9.44	9.66	10.12	10.06	8.85	9.55	57.68
HV network series losses	-3.50	-3.59	-3.72	-3.75	-3.31	-3.69	-21.56
SGT series losses	-1.41	-1.48	-1.55	-1.55	-1.29	-1.18	-8.46
Net System Utilisation	3.79	3.51	3.25	4.03	3.65	3.71	21.94
Generation Lead	-0.54	-0.69	-0.79	-0.71	-0.71	-0.74	-4.18
Generation Lag	0.80	0.62	0.60	0.60	0.51	0.68	3.81
Net Demand at GSPs	-3.28	-3.28	-2.89	-3.16	-2.80	-2.44	-17.85

9.5 The above values are all on an entirely GB basis, and thus include the contributions from English, Welsh and Scottish transmission systems, including all the 132kV and lower voltages.

9.6 Points to note when considering Table 3 include:

- HV gain varies due to circuit switching, outages and system operating voltage
- HV losses are driven by active power flows across the system
- Supergrid transformer series reactive losses are predominantly driven by local distribution company demand
- Switching of MSCs (Mechanically Switched Capacitors), SVCs (Static Var Compensators) and shunt reactors is determined by operational security requirements.

10. Exceptional Reactive Power Requirements

10.1 Paragraph 5 in Schedule 3 of the CUSC (Statutory and Regulatory Obligations) enables National Grid to contract outside of the Reactive Power Market tender process in specific circumstances for the provision of Enhanced Reactive Power Services. National Grid is required to publish details of circumstances surrounding this in the proceeding six-month period. During the period 1 October 2008 to 31 March 2009 National Grid did not require any service contracts for the provision of enhanced voltage support.

Appendices

Appendix 1 - Comparisons with previous Tender Rounds

Tender Round	Tender Round Start date	BM Units able to tender	No. of BM/Non BM Unit tenders Received	ORPS	ORPS + ERPS	12 month duration	>12 months duration	Successful Gensets Offered Market Agreements	Successful Gensets signing Market Agreements	% total MVAr lagging capability with Market Agreements
1	1 Apr 1998	154	85	76	9	85	0	41	41	~30%
2	1 Oct 1998	113	10	10	0	9	1	5	5	~36%
3	1 Apr 1999	150	102	102	0	102	0	75	57	~40%
4	1 Oct 1999	99	20	20	0	14	6	5	5	~40%
5	1 Apr 2000	151	99	98	1	97	2	98	89	~65%
6	1 Oct 2000	58	15	15	0	15	0	9	9	~70%
7	1 Apr 2001	145	104	104	0	104	0	43	43	~50%
8	1 Oct 2001	111	39	39	0	39	0	17	15	~57%
9	1 Apr 2002	138	76	76	0	68	8	32	32	~35%
10	1 Oct 2002	123	52	52	0	48	4	29	27	~45%
11	1 Apr 2003	125	59	59	0	57	2	31	30	~46%
12	1 Oct 2003	121	56	56	0	49	7	32	23	~43%
13	1 Apr 2004	126	46	46	0	41	5	32	32	~48%
14	1 Oct 2004	118	39	38	1	38	1	33	21	~46%

Tender Round	Tender Round Start date	BM Units able to tender	No. of BM/Non BM Unit tenders Received	ORPS	ORPS + ERPS	12 month duration	>12 months duration	Successful Gensets Offered Market Agreements	Successful Gensets signing Market Agreements	% total MVAr lagging capability with Market Agreements
15	1 Apr 2005	153	58	58	0	57	1	29	25	~35%
16	1 Oct 2005	151	37	36	1	33	4	25	13	~28%
17	1 Apr 2006	164	22	22	0	22	0	14	12	~20%
18	1 Oct 2006	164	21	20	1	21	0	7	6	~17%
19	1 Apr 2007	172	20	20	0	20	0	10	10	~14%
20	1 Oct 2007	170	30	30	0	30	0	17	15	~18%
21	1 Apr 2008	165	20	20	0	20	0	7	4	~14%
22	1 Oct 2008	176	20	20	0	20	0	8	3	~6%
23	1 Apr 2009	177	23	23	0	23	0	0	0	~2%

NB: Tender Round 1-14 inclusive incorporates England and Wales BM Units ONLY. Tender Round 15 onwards comprise of GB BM units.

Appendix 2 - BM Units' contractual position at 1 April 2009

Scotland

	BM Unit	Contract		BM Unit	Contract		BM Unit	Contract
1	Clachan 1	DPM	10	FIFE_01Z	DPM	19	LOAN_04Z	DPM
2	COCK_01Z	DPM	11	FOYE_01Z	DPM	20	PEHE_01Z	DPM
3	COCK_02Z	DPM	12	FOYE_02Z	DPM	21	PEHE_02Z	DPM
4	COCK_03Z	DPM	13	GRMO_01Z	DPM	22	PEHE_03Z	DPM
5	COCK_04Z	DPM	14	HUNB_07Z	DPM	23	PEHE_04Z	DPM
6	CRUA_01Z	DPM	15	HUNB_08Z	DPM	24	SLOY_04Z	DPM
7	CRUA_02Z	DPM	16	LOAN_01Z	DPM	25	TORN_01Z	DPM
8	CRUA_03Z	DPM	17	LOAN_02Z	DPM	26	TORN_02Z	DPM
9	CRUA_04Z	DPM	18	LOAN_03Z	DPM			

North

	BM Unit	Contract		BM Unit	Contract		BM Unit	Contract
27	BRGG_01Z	DPM	51	DRAXX10G	DPM	75	HRTL_02Z	DPM
28	CDCL_01Z	DPM	52	DRAXX12G	DPM	76	HUMR_01Z	DPM
29	CNQPS01Z	DPM	53	EGGPS01Z	DPM	77	KEAD_01Z	DPM
30	CNQPS02Z	DPM	54	EGGPS02Z	DPM	78	KILLN01Z	Market 22
31	CNQPS03Z	DPM	55	EGGPS03Z	DPM	79	KILLP01Z	DPM
32	CNQPS04Z	DPM	56	EGGPS04Z	DPM	80	KILLP02Z	DPM
33	COTPS01Z	DPM	57	FELL_01Z	DPM	81	ROCK_01Z	DPM
34	COTPS02Z	DPM	58	FERR_01Z	DPM	82	ROOS_01Z	DPM
35	COTPS03Z	DPM	59	FERR_02Z	DPM	83	SCCL_01Z	DPM
36	COTPS04Z	DPM	60	FERR_03Z	DPM	84	SCCL_02Z	DPM
37	DEEP_01Z	DPM	61	FERR_04Z	DPM	85	SCCL_03Z	DPM
38	DINO_01Z	DPM	62	FFES_01Z	DPM	86	SHBA_01Z	DPM
39	DINO_02Z	DPM	63	FFES_02Z	DPM	87	SHBA_02Z	DPM
40	DINO_03Z	DPM	64	FFES_03Z	DPM	88	SHOT_01Z	DPM
41	DINO_04Z	DPM	65	FFES_04Z	DPM	89	TESI_01Z	DPM
42	DINO_05Z	DPM	66	FIDL_01Z	DPM	90	TESI_02Z	DPM
43	DINO_06Z	DPM	67	FIDL_02Z	DPM	91	WBUPS01Z	DPM
44	DRAXX01Z	DPM	68	FIDL_03Z	DPM	92	WBUPS02Z	DPM
45	DRAXX02Z	DPM	69	FIDL_04Z	DPM	93	WBUPS03Z	DPM
46	DRAXX03Z	DPM	70	HEYM101Z	DPM	94	WBUPS04Z	DPM
47	DRAXX04Z	DPM	71	HEYM102Z	DPM	95	WYLF_01Z	DPM
48	DRAXX05Z	DPM	72	HEYM207Z	DPM	96	WYLF_02Z	DPM
49	DRAXX06Z	DPM	73	HEYM208Z	DPM	97	WYLF_03Z	DPM
50	DRAXX09G	DPM	74	HRTL_01Z	DPM	98	WYLF_04Z	DPM

Midlands

	BM Unit	**Contract**		**BM Unit**	**Contract**		**BM Unit**	**Contract**
99	CORB_01Z	DPM	106	PETEM01Z	DPM	113	RUGPS06G	DPM
100	DERW_01Z	DPM	107	RATS_01Z	DPM	114	RUGPS07G	DPM
101	GYAR_01Z	DPM	108	RATS_02Z	DPM	115	SIZB_01Z	DPM
102	IRNPS01Z	DPM	109	RATS_03Z	DPM	116	SIZB_02Z	DPM
103	IRNPS02Z	DPM	110	RATS_04Z	DPM	117	SIZEA01Z	DPM
104	KLYNA01Z	DPM	111	RUGPS06Z	DPM	118	SIZEA02Z	DPM
105	LBAR_01Z	DPM	112	RUGPS07Z	DPM	119	SPLN-1	DPM
						120	SUTB_01Z	DPM

South

	BM Unit	Contract		BM Unit	Contract		BM Unit	Contract
121	ABTHB07Z	DPM	141	DIDC_03G	DPM	161	LITTD01G	DPM
122	ABTHB08Z	DPM	142	DIDC_04G	DPM	162	LITTD02G	DPM
123	ABTHB09Z	DPM	143	DNGB_21Z	DPM	163	LITTD03G	DPM
124	BAGE_01Z	DPM	144	DNGB_22Z	DPM	164	LITTD01Z	Market 22
125	BAGE_02Z	DPM	145	DUNGA01Z	DPM	165	LITTD02Z	Market 22
126	BARK_02Z	DPM	146	DUNGA02Z	DPM	166	MEDP_01Z	DPM
127	BARK_11Z	DPM	147	DUNGA03Z	DPM	167	OLDS_01Z	DPM
128	BRYP_01Z	DPM	148	DUNGA04Z	DPM	168	OLDS_02Z	DPM
129	COSO_01Z	DPM	149	EECL_01Z	DPM	169	RYHPS01Z	DPM
130	COWE_01Z	DPM	150	FAWL_01Z	DPM	170	SEAB_01Z	DPM
131	COWE_02Z	DPM	151	FAWL_03Z	DPM	171	SEAB_02Z	DPM
132	DAMC_01Z	DPM	152	FAWN_01Z	DPM	172	SHOS_01Z	DPM
133	DIDC_01Z	DPM	153	GRAI_01Z	DPM	173	TAYL_02Z	DPM
134	DIDC_02Z	DPM	154	GRAI_04Z	DPM	174	TAYL_03Z	DPM
135	DIDC_03Z	DPM	155	HINB_07Z	DPM	175	TILBB08Z	DPM
136	DIDC_04Z	DPM	156	HINB_08Z	DPM	176	TILBB09Z	DPM
137	DIDCB05Z	DPM	157	KINO_01Z	DPM	177	TILBB10Z	DPM
138	DIDCB06Z	DPM	158	KINO_02Z	DPM	178	USKM_13Z	DPM
139	DIDC_01G	DPM	159	KINO_03Z	DPM	179	USKM_14Z	DPM
140	DIDC_02G	DPM	160	KINO_04Z	DPM	180	USKM_15Z	DPM

Notes:

Market 22 refers to those contracts commencing 1 October 2008
Eligible BM Units for Market Agreements are those with reactive capability, leading or lagging greater than 15 MVAr at the commercial boundary, and the further stipulations stated in CUSC Schedule 3.
There are no contracts for Enhanced Capability through the Reactive Tender process.

BM Units with MSAs incorporating reactive capability, leading or lagging less than 15 MVAr

	BM Unit	Contract		BM Unit	Contract		BM Unit	Contract
1	Beauly – AIGA_01Z	DPM	18	Conon - ORRI_01Z	DPM	34	Killin - LOCH_02Z	DPM
2	Beauly – AIGA_02Z	DPM	19	Conon – TORA_01Z	DPM	35	Killin - LUBR_01Z	DPM
3	Beauly – CULL_02Z	DPM	20	Conon – TORA_02	DPM	36	Moriston - CEAN_01Z	DPM
4	Beauly - DEAN_01Z	DPM	21	ERRO_01Z	DPM	37	Moriston - CEAN_02Z	DPM
5	Beauly - DEAN_02Z	DPM	22	ERRO_02Z	DPM	38	Moriston - GLEN_01Z	DPM
6	Beauly - KIOR_01Z	DPM	23	ERRO_03Z	DPM	39	Moriston - GLEN_02Z	DPM
7	Beauly - KIOR_02Z	DPM	24	FASN_01Z	DPM	40	Moriston - Livishie 1	DPM
8	Black Law	DPM	25	FASN_02Z	DPM	41	NANT_01Z	DPM

9	Clunie - CLUN_01Z	DPM	26	FASN_03Z	DPM	42	Shin 1	DPM
10	Clunie - CLUN_02Z	DPM	27	FINL_01Z	DPM	43	Shin 2	DPM
11	Clunie - CLUN_03Z	DPM	28	Garry - INGA_01Z	DPM	44	SLOY_01Z	DPM
12	Clunie - Pitlochry 1	DPM	29	Garry – QUOI_01Z	DPM	45	SLOY_02Z	DPM
13	Clunie - Pitlochry 2	DPM	30	Grudie Bridge 1	DPM	46	SLOY_03Z	DPM
14	Conon - LUIC_01Z	DPM	31	Grudie Bridge 2	DPM	47	Tongland	DPM
15	Conon - LUIC_02Z	DPM	32	Killin – CASH_01Z	DPM	48	Tummel Bridge 1	DPM
16	Conon - MOSS_01Z	DPM	33	Killin – LOCH_01Z	DPM	49	Tummel Bridge 2	DPM
17	Conon - MOSS_02Z	DPM						

Notes:

Non-eligible BM Units for Market Agreements are those with reactive capability, leading or lagging less than 15 MVAr at the commercial boundary. The BM Units, above, do receive default payments as they have Mandatory Service Agreements.

Appendix 3 - Reactive Market Agreement status at 1 April 2009

Contracts Continuing on 1 April 2009			
	Company	**BM Unit ID**	**Contract Expiry Date**
1	RWE Npower plc	LITTD01Z	30/09/2009
2	RWE Npower plc	LITTD02Z	30/09/2009
3	Centrica KPS Ltd	KILLN01Z	30/09/2009

New Contracts Commencing on 1 April 2009			
	Company	**BM Unit ID**	**Contract Expiry Date**
1	None	None	N/A

Appendix 4 - Successful tender details for contracts commencing 1 April 2009

Note: There were no successful tenderers

Appendix 5 - Generation Utilisation Volumes by BM Unit – October 2008 to March 2009

BM Unit	Agreement	Monthly MVArh												6 Month TOTAL	
		Oct 08		Nov 08		Dec 08		Jan 09		Feb 09		Mar 09			
		Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
ABTHB07Z	Default	5,230	5,424	4,144	4,378	5,548	3,191	5,923	4,431	4,947	3,814	3,014	3,352	28,805	24,591
ABTHB08Z	Default	4,430	4,377	4,009	5,132	3,304	3,336	3,100	4,444	3,868	3,973	2,871	2,804	21,582	24,066
ABTHB09Z	Default	4,338	5,169	4,409	5,244	5,741	5,372	4,461	5,166	4,103	3,986	2,122	2,375	25,174	27,311
AIGA_01Z	Default	4	10	8	3	7	7	8	3	8	3	12	3	48	29
BAGE_01Z	Default	247	282	0	0	119	215	132	31	69	0	0	1	567	529
BAGE_02Z	Default	98	173	0	0	0	18	0	0	0	0	3	0	102	192
BARK_02Z	Default	7,401	5,315	11,928	4,598	4,930	5,651	8,653	7,061	4,794	4,178	11,906	5,015	49,613	31,819
BARK_11Z	Market	10,457	4,482	13,286	4,642	10,224	5,361	9,707	3,460	7,757	3,163	14,823	4,438	66,255	25,546
BRGG_01Z	Default	1,799	2,148	1,353	846	1,449	866	1,767	1,343	1,614	701	2,070	917	10,053	6,822
BRWE_01Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRWE_02Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRWE_03Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRWE_04Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRWE_05Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRWE_06Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRYP_01Z	Default	1,183	4,769	1,095	3,389	910	2,379	1,264	2,969	793	2,812	1,229	2,785	6,475	19,104
CASH_01Z	Default	5	1	6	1	2	51	0	164	0	36	0	169	14	423
CDCL_01Z	Default	2,675	7,783	0	0	339	313	3,132	9,808	3,877	6,160	5,777	6,145	15,800	30,209
CEAN_01Z	Default	0	100	0	132	0	207	0	218	1	182	0	160	1	1,000
CLAC-1	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLUN_01Z	Default	22	104	111	103	254	3	208	45	166	13	115	44	877	311
CLUN_02Z	Default	195	437	194	498	328	526	179	665	63	293	76	567	1,034	2,986
CNQPS01Z	Default	692	1,797	3,832	4,944	3,947	2,600	3,023	1,929	5,175	2,400	5,371	4,060	22,039	17,730
CNQPS02Z	Default	0	0	0	0	4,442	874	5,808	3,243	4,172	3,570	5,448	4,438	19,870	12,126
CNQPS03Z	Default	3,014	4,725	3,457	4,850	4,911	3,539	4,699	2,969	0	0	0	0	16,082	16,084
CNQPS04Z	Default	2,000	3,184	4,020	4,925	6,358	3,389	5,243	3,600	5,441	1,975	3,725	2,179	26,787	19,252
COCK_01Z	Default	8,106	2,435	4,237	4,034	11,347	1,861	9,184	2,133	3,784	2,017	2,973	2,079	39,630	14,559

BM Unit	Agreement	Monthly MVArh												6 Month TOTAL	
		Oct 08		Nov 08		Dec 08		Jan 09		Feb 09		Mar 09			
		Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
COCK_02Z	Default	3,712	4,305	3,273	3,779	6,760	1,743	6,276	3,795	4,612	3,943	3,167	2,050	27,800	19,616
COCK_03Z	Default	5,158	6	12,284	21	20,825	21	21,504	1	15,791	0	17,082	3	92,644	51
COCK_04Z	Default	3,210	13	11,454	10	18,899	3	18,755	2	14,391	1	14,739	1	81,448	31
CORB_01Z	Default	2,726	3,747	2,006	1,363	1,523	1,187	1,571	1,003	1,561	1,360	2,066	1,388	11,452	10,046
COSO_01Z	Default	3,545	5,897	3,300	3,183	4,996	3,130	4,365	3,287	3,703	3,060	4,580	1,886	24,490	20,443
COTPS01Z	Default	4,421	8,383	4,220	5,645	8,183	4,894	4,769	6,008	4,805	4,324	4,795	5,951	31,194	35,204
COTPS02Z	Default	2,545	12,398	6,056	6,323	5,719	4,572	5,806	6,007	5,069	3,855	4,992	6,107	30,188	39,260
COTPS03Z	Default	5,053	4,489	7,893	5,670	10,236	4,095	4,645	5,612	5,703	4,885	3,768	6,303	37,298	31,053
COTPS04Z	Default	3,390	6,562	4,510	5,659	5,196	4,241	5,808	6,512	4,984	4,325	2,919	6,122	26,806	33,421
COWE_01Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COWE_02Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUA_01Z	Default	4,597	169	1,689	53	2,165	57	0	0	0	0	0	0	8,451	278
CRUA_02Z	Default	6,754	158	2,277	70	2,713	66	0	0	0	0	0	0	11,743	294
CRUA_03Z	Default	0	0	1,256	28	1,092	7	0	0	0	0	0	0	2,347	35
CRUA_04Z	Default	0	0	915	4	810	5	0	0	0	0	0	0	1,725	9
CULL_02Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAMC_01Z	Default	14,887	7,012	12,262	5,820	11,091	7,113	10,423	6,394	13,123	5,338	17,806	9,649	79,592	41,327
DEAN_01Z	Default	83	1	99	2	112	5	153	1	58	2	96	4	600	15
DEEP_01Z	Default	2,709	4,877	3,967	4,916	4,328	3,435	5,356	2,675	5,529	2,978	5,378	2,829	27,267	21,709
DERW_01Z	Default	2,923	4,168	3,812	2,952	3,058	3,390	3,260	3,822	2,677	3,277	2,734	4,440	18,463	22,048
DIDC_01G	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DIDC_01Z	Default	3,907	2,429	9,278	2,854	1,686	1,158	5,145	2,440	3,648	2,064	721	455	24,385	11,400
DIDC_02G	Default	0	0	0	2	0	0	0	0	0	0	0	5	0	6
DIDC_02Z	Default	6,134	2,507	9,102	3,616	6,109	2,455	4,499	3,637	5,801	1,792	320	241	31,965	14,248
DIDC_03G	Default	0	0	0	0	0	0	0	0	0	0	0	5	0	5
DIDC_03Z	Default	0	0	708	494	6,970	3,027	5,760	2,474	6,101	2,510	575	836	20,114	9,341
DIDC_04G	Default	0	0	0	0	0	0	0	0	0	0	0	4	0	4
DIDC_04Z	Default	4,805	1,899	9,285	3,209	7,001	2,677	5,920	2,766	4,336	2,229	635	489	31,983	13,269
DIDCB05Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0

BM Unit	Agreement	Monthly MVArh												6 Month TOTAL	
		Oct 08		Nov 08		Dec 08		Jan 09		Feb 09		Mar 09			
		Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
DIDCB06Z	Default	11,963	6,834	17,416	6,514	15,769	4,085	12,402	5,026	18,895	4,169	19,946	7,169	96,392	33,797
DINO_01Z	Default	6,808	2,972	10,219	957	11,372	1,619	5,177	1,070	10,048	2,993	9,930	1,473	53,554	11,084
DINO_02Z	Default	5,293	1,790	7,448	529	8,769	132	4,472	227	7,007	146	7,225	411	40,213	3,234
DINO_03Z	Default	2,299	2,972	4,722	1,795	3,352	1,908	6,234	1,436	5,027	1,864	4,446	1,863	26,079	11,838
DINO_04Z	Default	6,040	1,417	8,284	1,033	5,156	585	8,106	905	9,448	1,609	10,637	1,353	47,669	6,902
DINO_05Z	Default	5,569	4,050	9,611	510	9,530	1,582	10,238	993	6,768	746	6,096	365	47,812	8,246
DINO_06Z	Default	4,295	3,368	7,831	468	6,952	1,441	9,487	906	6,538	794	9,961	820	45,064	7,798
DNGB_21Z	Default	7,481	3,252	9,722	6,817	14,554	5,929	5,720	3,521	10,292	4,796	5,942	2,247	53,711	26,562
DNGB_22Z	Default	0	0	0	0	0	0	1,639	1,444	12,644	4,081	20,619	7,892	34,903	13,417
DRAXX01Z	Market	8,605	14,412	7,279	14,453	1,628	3,253	0	0	9,236	5,784	7,617	6,040	34,364	43,942
DRAXX02Z	Market	5,282	21,382	5,387	15,772	13,925	12,126	12,603	10,349	8,819	7,186	9,298	8,320	55,314	75,135
DRAXX03Z	Default	4,128	16,112	7,241	7,948	13,060	9,075	8,170	8,721	6,049	5,034	8,324	6,568	46,971	53,458
DRAXX04Z	Market	5,784	22,141	7,603	13,006	15,828	10,655	13,009	8,813	8,371	8,818	8,321	7,245	58,916	70,677
DRAXX05Z	Default	4,812	16,575	5,580	11,317	12,139	10,498	7,539	8,996	7,007	4,251	7,593	5,658	44,669	57,295
DRAXX06Z	Default	3,400	13,052	5,574	9,708	10,036	10,812	6,178	9,411	5,901	4,033	7,471	6,437	38,560	53,453
DRAXX09G	Default	0	10	0	0	0	0	0	0	0	0	0	6	0	17
DRAXX10G	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DRAXX12G	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUNGA01Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUNGA02Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUNGA03Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUNGA04Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EECL_01Z	Default	6,387	3,695	6,607	4,574	5,590	3,722	4,975	3,582	3,635	3,954	6,833	5,237	34,028	24,764
EGGPS01Z	Default	3,787	11,396	4,054	6,798	8,942	7,127	5,438	6,290	4,280	4,239	179	186	26,681	36,036
EGGPS02Z	Default	4,246	6,531	2,380	8,128	2,474	5,451	2,667	7,356	2,231	5,547	1,692	2,688	15,690	35,701
EGGPS03Z	Default	3,253	9,834	4,570	7,667	8,312	7,890	6,379	6,851	4,853	5,896	5,431	5,050	32,797	43,188
EGGPS04Z	Default	2,949	12,464	4,738	7,930	6,803	8,406	6,661	7,281	4,356	3,873	5,113	6,086	30,620	46,040
ERRO_01Z	Default	15	88	6	32	13	51	17	63	6	41	16	69	74	343
ERRO_02Z	Default	3	33	13	112	7	54	10	78	5	43	12	74	49	394

BM Unit	Agreement	Monthly MVArh												6 Month TOTAL	
		Oct 08		Nov 08		Dec 08		Jan 09		Feb 09		Mar 09			
		Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
ERRO_03Z	Default	14	87	13	110	11	45	11	63	7	34	14	70	70	410
FASN_01Z	Default	274	13	259	23	282	26	137	37	325	8	154	22	1,431	130
FASN_02Z	Default	0	0	0	0	0	0	0	0	94	25	287	31	382	56
FASN_03Z	Default	12	309	0	225	194	584	1	952	95	267	4	315	307	2,653
FAWL_01Z	Default	763	1,389	174	1,208	480	1,576	161	1,488	75	830	281	1,435	1,933	7,926
FAWL_03Z	Default	443	143	984	707	688	428	1,412	636	354	326	491	360	4,371	2,600
FAWN_01Z	Default	11,811	0	16,127	0	14,628	0	12,922	2	12,046	0	14,176	0	81,710	2
FELL_01Z	Default	166	6,028	47	5,309	79	8,359	19	10,315	124	6,610	632	6,684	1,067	43,305
FERR_01Z	Default	2,930	6,241	3,586	4,073	1,217	1,931	5,240	3,566	3,872	2,352	495	712	17,340	18,876
FERR_02Z	Default	3,282	5,520	2,674	4,659	1,198	2,044	4,627	3,667	3,080	2,804	0	0	14,862	18,694
FERR_03Z	Default	631	2,071	668	1,296	897	3,306	1,370	2,524	3,803	3,172	1,981	2,703	9,350	15,072
FERR_04Z	Default	682	1,755	1,083	1,684	1,402	3,159	2,538	2,112	3,144	1,926	4,293	3,383	13,143	14,019
FFES_01Z	Default	4,504	210	4,121	371	4,892	225	2,752	279	2,165	259	2,888	112	21,321	1,457
FFES_02Z	Default	2,613	121	1,604	35	1,432	32	3,476	43	2,924	17	3,829	50	15,878	298
FFES_03Z	Default	1,771	520	1,728	965	1,691	547	1,134	153	739	164	1,335	196	8,399	2,545
FFES_04Z	Default	2,079	343	630	173	1,749	377	2,242	722	2,299	788	3,235	572	12,235	2,975
FIDL_01Z	Default	0	0	0	0	971	566	3,744	982	4,739	1,723	0	0	9,454	3,271
FIDL_02Z	Default	1,055	796	2,880	922	1,452	1,034	6,006	2,684	5,336	2,093	3,351	975	20,079	8,503
FIDL_03Z	Default	985	1,060	1,668	1,236	1,415	1,305	5,887	3,187	4,512	2,290	4,008	2,667	18,475	11,744
FIDL_04Z	Default	823	849	1,144	1,710	1,942	2,584	3,352	2,336	5,174	2,493	3,640	1,842	16,074	11,814
FIFE_01Z	Default	3,779	2,556	3,514	1,095	2,188	681	712	1,761	431	991	411	1,498	11,035	8,583
FINL_01Z	Default	322	264	448	534	173	324	205	245	222	265	714	573	2,086	2,205
FOYE_01Z	Default	0	0	587	953	842	1,622	449	1,582	573	1,539	428	841	2,879	6,538
FOYE_02Z	Default	1,908	886	1,542	1,537	1,091	1,792	1,311	1,653	1,474	1,609	1,105	846	8,431	8,322
GLEN_01Z	Default	13	14	9	19	10	32	20	19	7	38	5	39	64	161
GRAI_01Z	Default	691	1,187	1,948	2,942	3,530	3,436	1,298	2,468	489	841	0	0	7,955	10,874
GRAI_03Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GRAI_04Z	Default	0	0	823	2,218	3,931	3,161	1,932	3,458	955	1,841	0	147	7,641	10,825
GRMO_01Z	Default	0	17,422	2	16,699	0	18,352	0	19,089	0	17,496	0	19,809	2	108,867

BM Unit	Agreement	Monthly MVArh												6 Month TOTAL	
		Oct 08		Nov 08		Dec 08		Jan 09		Feb 09		Mar 09			
		Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
GRUB_01Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GRUB_02Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GYAR_01Z	Default	0	0	686	1,543	4,004	3,928	3,792	4,289	3,688	3,572	4,696	2,617	16,866	15,948
HEYM101Z	Default	0	0	11	0	7	0	124	212	8,662	3,718	14,634	4,331	23,436	8,261
HEYM102Z	Default	71	2	5	0	3	2	2	2	2	1	4,036	3,002	4,118	3,008
HEYM207Z	Default	0	0	3,671	4,312	15,090	11,349	16,041	11,690	10,874	20,730	0	154,661	45,675	202,743
HEYM208Z	Default	10,307	20,712	14,372	13,675	19,915	12,945	9,202	5,710	11,799	4,267	15,558	4,552	81,152	61,860
HINB_07Z	Default	8,565	9,823	4,941	19,031	2,580	20,139	768	22,500	1,684	18,015	4,421	19,247	22,959	108,756
HINB_08Z	Default	0	0	0	0	9,601	5,274	2,335	2,161	5,434	7,506	11,994	5,245	29,363	20,186
HRTL_01Z	Default	16	0	0	0	0	0	1,006	1,650	19,955	4,361	16,915	6,396	37,891	12,407
HRTL_02Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUMR_01Z	Default	4,052	10,820	5,680	6,525	7,292	6,928	5,556	8,115	6,383	3,610	5,967	6,841	34,930	42,841
HUNB_07Z	Default	26,104	1,294	21,907	711	44,349	1,990	37,179	1,565	48,239	317	23,614	3,715	201,392	9,592
HUNB_08Z	Default	36,767	2,666	41,431	2,396	43,808	1,007	35,467	1,090	42,204	362	21,679	3,998	221,356	11,520
INGA_01Z	Default	0	43	0	164	0	619	0	174	0	152	0	202	1	1,354
IRNPS01Z	Default	2,351	2,371	2,995	2,698	2,515	1,696	3,073	1,371	898	1,002	253	265	12,085	9,403
IRNPS02Z	Default	1,685	1,901	2,580	3,199	1,493	1,842	2,680	1,423	995	1,210	112	178	9,544	9,753
KEAD_01Z	Default	1,180	24,759	4,632	19,542	5,427	15,018	3,241	16,019	3,949	11,224	4,522	16,991	22,951	103,554
KILLP01Z	Default	4,006	3,560	3,395	3,118	2,776	3,527	3,372	2,612	3,702	2,574	6,491	3,375	23,741	18,767
KILLP02Z	Default	4,529	2,993	473	297	3,418	2,324	3,268	2,551	3,934	1,840	6,392	2,352	22,014	12,357
KILNS01Z	Market	4,055	7,465	4,178	6,699	4,358	3,935	3,367	5,191	2,049	1,606	1,876	747	19,884	25,642
KINO_01Z	Default	8,510	1,295	6,126	3,077	7,000	6,234	5,574	4,241	4,847	1,651	2,682	1,055	34,738	17,552
KINO_02Z	Default	2,634	2,228	8,141	4,015	9,197	4,633	7,046	3,300	6,043	2,080	4,364	728	37,426	16,985
KINO_03Z	Default	634	1,953	0	0	5,461	3,115	6,027	3,270	4,603	3,144	1,555	916	18,280	12,399
KINO_04Z	Default	618	762	9,410	3,166	5,573	4,431	5,706	4,453	4,192	2,117	2,178	821	27,677	15,750
KIOR_01Z	Default	8	4	7	10	5	9	5	11	6	5	10	3	41	42
KLYNA01Z	Default	5,048	7,124	5,045	4,643	4,221	3,842	5,537	6,898	2,316	2,503	0	0	22,167	25,010
LBAR_01Z	Default	7,441	10,343	4,773	8,337	9,067	9,174	7,464	8,887	4,750	5,499	3,275	6,576	36,770	48,817
LITTD01G	Default	0	0	4	0	7	0	0	0	0	0	12	0	23	0

BM Unit	Agreement	Monthly MVArh												6 Month TOTAL	
		Oct 08		Nov 08		Dec 08		Jan 09		Feb 09		Mar 09			
		Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
LITTD01Z	Market	1,153	1,521	340	1,169	170	80	1,771	2,094	398	507	575	974	4,406	6,346
LITTD02G	Default	0	0	15	0	0	0	0	0	0	0	3	0	18	0
LITTD02Z	Market	206	307	742	1,477	567	1,516	1,028	1,153	319	294	0	0	2,861	4,747
LITTD03G	Default	1	0	26	1	3	5	13	0	0	0	10	9	53	15
LOAN_01Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOAN_02Z	Default	20,753	13,759	25,911	7,363	49,928	4,907	36,438	7,803	39,059	1,441	17,058	5,689	189,146	40,963
LOAN_03Z	Default	0	0	0	0	21,122	5,239	21,614	11,373	29,861	4,167	14,922	15,795	87,519	36,574
LOAN_04Z	Default	40,003	163	39,111	321	54,088	259	65,895	1,111	38,012	736	41,939	256	279,047	2,846
LOCH_01Z	Default	1,135	31	438	141	396	118	607	35	327	78	647	22	3,550	425
LOCH_02Z	Default	689	81	82	251	270	200	503	260	148	137	381	180	2,073	1,108
LUIC_01Z	Default	214	260	71	425	113	326	248	248	125	294	292	460	1,064	2,014
LUIC_02Z	Default	233	205	419	200	102	289	320	153	163	167	374	273	1,611	1,287
MEDP_01Z	Default	1	0	0	0	8	0	0	0	0	0	5	0	15	0
MOSS_01Z	Default	399	507	1,034	369	793	471	891	362	572	541	1,397	334	5,085	2,584
NANT_01Z	Default	6	228	37	121	11	104	56	73	13	41	25	116	147	684
OLDS_01Z	Default	0	0	0	0	0	0	0	0	0	0	2,221	2,756	2,221	2,756
OLDS_02Z	Default	5,212	6,331	4,951	5,653	6,159	4,746	5,843	4,533	1,897	1,829	74	0	24,135	23,092
ORRI_01Z	Default	56	2	116	0	34	100	0	127	65	47	345	0	617	276
PEHE_01Z	Default	12,743	15,887	13,972	21,757	23,457	18,375	19,784	21,523	14,920	14,297	23,101	11,515	107,976	103,354
PEHE_02Z	Default	4,426	10,799	1,625	7,326	1,922	3,500	2,603	8,693	1,827	2,804	7,409	3,526	19,813	36,649
PETEM01Z	Default	2,541	1,011	548	1,371	903	234	2,259	1,215	1,427	1,694	1,099	1,366	8,778	6,891
QUIO_01Z	Default	0	0	0	0	106	155	195	342	149	141	155	29	606	667
RATS_01Z	Default	4,433	6,556	6,068	5,227	6,911	4,385	5,255	4,888	5,092	4,019	4,803	5,424	32,561	30,498
RATS_02Z	Default	4,207	3,311	7,337	3,889	6,759	4,065	4,629	3,567	6,216	4,230	6,097	5,153	35,245	24,216
RATS_03Z	Default	6,396	6,713	5,336	3,623	6,759	5,340	4,843	3,118	6,031	5,018	5,856	6,427	35,221	30,239
RATS_04Z	Default	4,458	5,541	5,221	3,467	5,591	4,829	3,696	6,884	3,323	5,547	6,481	4,831	28,769	31,100
ROCK_01Z	Default	7,773	5,991	12,113	6,579	21,459	3,533	12,534	4,167	10,950	4,263	19,058	3,259	83,886	27,792
ROOS_01Z	Default	183	10,289	363	7,865	262	5,930	469	3,863	363	4,169	1,735	866	3,375	32,982
RUGPS06G	Default	0	21	0	0	0	0	0	0	0	0	0	24	0	45

BM Unit	Agreement	Monthly MVArh												6 Month TOTAL	
		Oct 08		Nov 08		Dec 08		Jan 09		Feb 09		Mar 09			
		Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
RUGPS06Z	Default	1,682	2,367	2,938	4,198	5,094	5,637	3,884	5,184	3,153	4,967	4,977	5,182	21,728	27,535
RUGPS07G	Default	0	5	0	11	0	3	0	6	0	0	0	12	0	37
RUGPS07Z	Default	3,430	3,495	3,288	4,283	4,306	5,186	5,737	4,284	5,651	4,725	5,501	4,761	27,911	26,733
RYHPS01Z	Default	10,085	6,944	12,525	5,221	10,988	6,476	7,963	4,898	9,221	5,043	11,673	9,300	62,455	37,882
SCCL_01Z	Default	431	2,685	1,727	1,991	1,128	1,299	1,412	3,834	794	979	744	2,987	6,235	13,774
SCCL_02Z	Default	1,700	5,578	2,405	5,684	1,986	5,102	3,486	5,008	3,894	4,025	4,494	3,698	17,964	29,095
SCCL_03Z	Default	1,227	3,582	1,884	2,208	1,355	3,455	1,770	5,052	1,685	1,784	1,347	3,153	9,268	19,234
SEAB_01Z	Default	10,157	6,603	8,980	6,784	9,864	5,500	16,412	3,522	7,082	4,511	10,863	4,943	63,359	31,862
SEAB_02Z	Default	0	0	719	25	4,427	3,292	3,614	3,350	4,036	1,685	7,538	3,192	20,335	11,544
SHBA_01Z	Default	3,352	7,210	4,528	5,712	6,649	4,682	4,544	7,241	5,342	3,390	4,416	4,804	28,831	33,038
SHBA_02Z	Default	3,082	6,014	3,558	6,181	5,794	4,449	3,523	6,407	4,393	3,802	3,111	5,040	23,461	31,891
SHOS_01Z	Default	4,717	3,578	4,633	3,565	2,907	1,847	166	170	6,233	2,644	7,248	3,512	25,904	15,315
SHOT_01Z	Default	592	6,084	89	8,272	211	4,856	74	5,347	175	4,482	178	5,209	1,318	34,250
SIZB_01Z	Default	416	68,672	1,427	29,249	4,531	13,716	2,014	19,224	2,997	17,223	5,122	22,499	16,506	170,583
SIZB_02Z	Default	131	60,055	26,098	13,088	33,370	412	25,673	1,267	67,044	23	37,584	4,332	189,900	79,177
SIZEA01Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SIZEA02Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SLOY_01Z	Default	101	130	44	86	105	52	37	80	47	49	106	175	440	573
SLOY_02Z	Default	89	108	33	44	77	49	39	68	65	40	100	32	402	340
SLOY_03Z	Default	46	71	36	85	79	53	25	84	32	55	145	73	362	420
SLOY_04Z	Default	80	28	6	1	16	15	12	15	4	8	3	0	121	68
SPLN_01Z	Default	3,779	7,569	4,693	13,773	7,600	11,029	5,701	13,847	4,763	8,537	8,424	13,147	34,959	67,901
SUTB_01Z	Default	8,650	0	6,427	0	8,863	0	7,412	0	6,267	0	7,448	0	45,066	0
TAYL_02Z	Default	10	11	0	2	2	5	0	18	1	0	15	10	27	46
TAYL_03Z	Default	16	7	1	8	12	4	6	21	3	2	23	3	62	44
TESI_01Z	Default	4,701	9,836	17,013	3,396	17,740	5,439	9,626	4,184	0	0	12,509	597	61,590	23,450
TESI_02Z	Default	2,671	5,494	11,414	2,959	10,901	2,585	5,418	2,517	0	0	12,323	552	42,727	14,108
TILBB08Z	Default	3,040	4,069	3,298	3,198	4,959	2,508	5,455	3,183	3,048	2,037	1,033	2,200	20,833	17,195
TILBB09Z	Default	1,540	2,219	3,354	3,819	4,098	3,204	2,953	3,510	2,631	2,120	837	1,983	15,414	16,855

BM Unit	Agreement	Monthly MVArh												6 Month TOTAL	
		Oct 08		Nov 08		Dec 08		Jan 09		Feb 09		Mar 09			
		Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
TILBB10Z	Default	2,552	3,645	3,948	3,057	4,323	4,096	3,161	2,606	2,514	2,231	1,346	1,067	17,843	16,701
TORA_01Z	Default	90	2	71	4	30	35	19	33	10	51	16	33	236	158
TORA_02Z	Default	178	0	183	0	153	0	161	0	100	0	213	0	989	1
TORN_01Z	Default	15,096	7,936	13,586	8,876	17,245	10,305	19,514	14,146	28,009	5,462	9,675	10,907	103,124	57,631
TORN_02Z	Default	14,881	12,146	19,556	8,193	16,448	11,576	17,596	7,523	24,766	5,114	12,833	11,612	106,080	56,164
USKM_13Z	Default	660	826	1,160	786	1,624	1,000	1,480	995	1,089	688	794	530	6,807	4,825
USKM_14Z	Default	856	754	1,138	1,006	1,259	1,348	885	1,085	899	1,115	702	403	5,739	5,712
USKM_15Z	Default	777	865	1,104	1,081	1,165	825	956	1,214	732	1,164	597	524	5,331	5,672
WBUPS01Z	Default	1,141	10,684	3,053	9,265	3,648	7,482	3,178	7,522	4,336	4,799	1,564	6,756	16,920	46,508
WBUPS02Z	Default	2,360	12,224	3,187	9,540	5,796	7,785	3,087	9,596	4,361	7,368	3,715	9,250	22,505	55,764
WBUPS03Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBUPS04Z	Default	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WYLF_01Z	Default	4,071	2,873	4,677	2,539	3,460	2,929	5,040	2,254	3,933	3,068	6,283	1,965	27,463	15,628
WYLF_02Z	Default	3,700	3,383	4,829	2,620	3,492	2,712	5,619	1,676	4,202	2,582	3,174	904	25,014	13,876
WYLF_03Z	Default	3,659	3,428	4,963	2,650	5,369	1,967	7,810	1,006	4,795	2,347	6,918	2,002	33,515	13,400
WYLF_04Z	Default	3,595	3,489	5,886	2,662	7,342	1,826	9,400	1,696	6,767	1,848	9,613	1,432	42,605	12,954
Subtotal	Default	605,999	750,486	770,267	584,822	1,003,002	551,447	893,285	599,048	913,581	460,055	834,359	658,551	5,020,492	3,604,410
Subtotal	Market	35,542	71,709	38,815	57,217	46,700	36,927	41,486	31,060	36,948	27,358	42,509	27,764	242,000	252,035
Total	MVArh	641,541	822,195	809,081	642,039	1,049,702	588,374	934,770	630,108	950,529	487,413	876,868	686,315	5,262,492	3,856,445

Appendix 6 - Tender Assessment Procedure

A6 Introduction

A6.1 National Grid assessed Reactive Power Tender Round 23 in a manner consistent with the processes applied to all previous Tender Rounds, as detailed in Schedule 3 of the CUSC. Analytical processing was conducted in six-month time periods (Summer – from 1 April to 30 September and Winter – from 1 October to 31 March) in order to consider any interaction with the overlap of contracts secured during the previous Reactive Power Market Tender Rounds and also to take into account the effects of the implementation of CUSC Modification CAP045.

A6.2 National Grid has divided the process of assessing tenders into several stages, which were addressed as follows:

- *Tender Receipt and Registration*: The tenders were opened, in the presence of a separate witness and all tender data submitted was entered into TARDIS (Transmission Ancillary Reactive Database Information System).

- *Tender Data validation*: All TARDIS entries were then separately checked back to the original tender sheets. Compliance checks within TARDIS showed that all the tenders submitted were compliant.

- *Reactive Power Service Assessment*: The tenders were assessed against forecast, taking into account the many interacting factors associated with each tender acceptance decision, as described in Appendix 6 in Schedule 3 of the CUSC. This involved, inter-alia, evaluation against projections of expenditure and availability of service against historical and forecast MVAr and MVArh data to produce central views of the money payable under the DPM (Default Payment Mechanism) or a Market Agreement (described below). The overall assessment was supported by an examination of a number of credible sensitivities around the central assessment.

A6.3 Core Analytical Processing

- Tender assessment takes place in the context of uncertainties and interactions affecting reactive payments and transmission requirements. To initiate the assessment of the overall value of each tender, it is considered necessary to construct a central view of future payments so that the relative impact of the factors influencing the economic evaluation of tenders can be fully addressed.

  For each BM Unit tendered, the processing was as follows:

- Forecast Mvarh generated, in each band by reactive Mvar breakpoints,

based on historical trends and forecast load factors. The historical observations covered the period April 2005 to September 2008 and came from the Ancillary Services records against which Reactive Power utilisation is currently being paid.

- The alternative DPM utilisation payment was forecast as the forecast Mvarh multiplied by the forecast utilisation prices. These utilisation prices were £3.1/Mvarh for summer and £3.4/Mvarh for winter. The utilisation prices were derived from the calculation defined in the CUSC Schedule 3, using a forecast of indices.

- The market agreement capability payment was forecast as tendered price multiplied by tendered capability, allowing for break-points, multiplied by forecast hours for both available and synchronised capability.

- The market agreement utilisation payment was forecast as tendered prices multiplied by the same forecast Mvarh as those used in the alternative DPM payment forecast, respecting the tendered break-point bands of Mvarh utilisation.

- The core comparison of default versus market agreement is based on the forecast payments detailed above. However, Reactive Power assessment is by no means as simple as taking the cheapest option. A full understanding of the factors influencing Reactive Power requirements on the GB Transmission System must be taken into account to provide a complete economic assessment of tender value

A6.4 Assessment Sensitivities

- The principal role of tender assessment is to quantify and evaluate consistently the many factors that should be considered. These factors are referred to in 3.3(e)(ii) of Schedule 3 of the CUSC. National Grid assessment has developed and implemented a process enabling these factors and associated uncertainties to be methodically considered.

- In the light of CAP045, the variability in the DPM price will affect the balance between market and default payments. The robustness of the core contract decisions was considered against a range of Default prices from the central forecast Default prices used. A range of +/-10% on Default prices was considered alongside historic trends.

- The Reactive Power market tender evaluation process is subjective in nature, based as it is on forecast assumptions. It has therefore been important to establish a framework within which this subjectivity could be exercised in a consistent fashion across all tenders.

Specific questions were asked of each tender, examples of which follow:

- *Would a Market Agreement (central case assessment) give a reduction in payments?*

- *Would a Market Agreement reflect the effectiveness at providing voltage support at that location?*

- *Would a Market Agreement be robust against expected individual variations in utilisation due to any of the following:*
  - *A new station opening nearby*
  - *An existing nearby station closing*
  - *A change in local Reactive Power demand*
  - *A change to the transmission system (including planned outages)*

- *Would a Market Agreement enhance the incentive on the Generator to maintain its Grid Code capability?*

- *How would a Market Agreement affect operational despatch?*

- *To what extent might a Market Agreement potentially offset National Grid investment?*

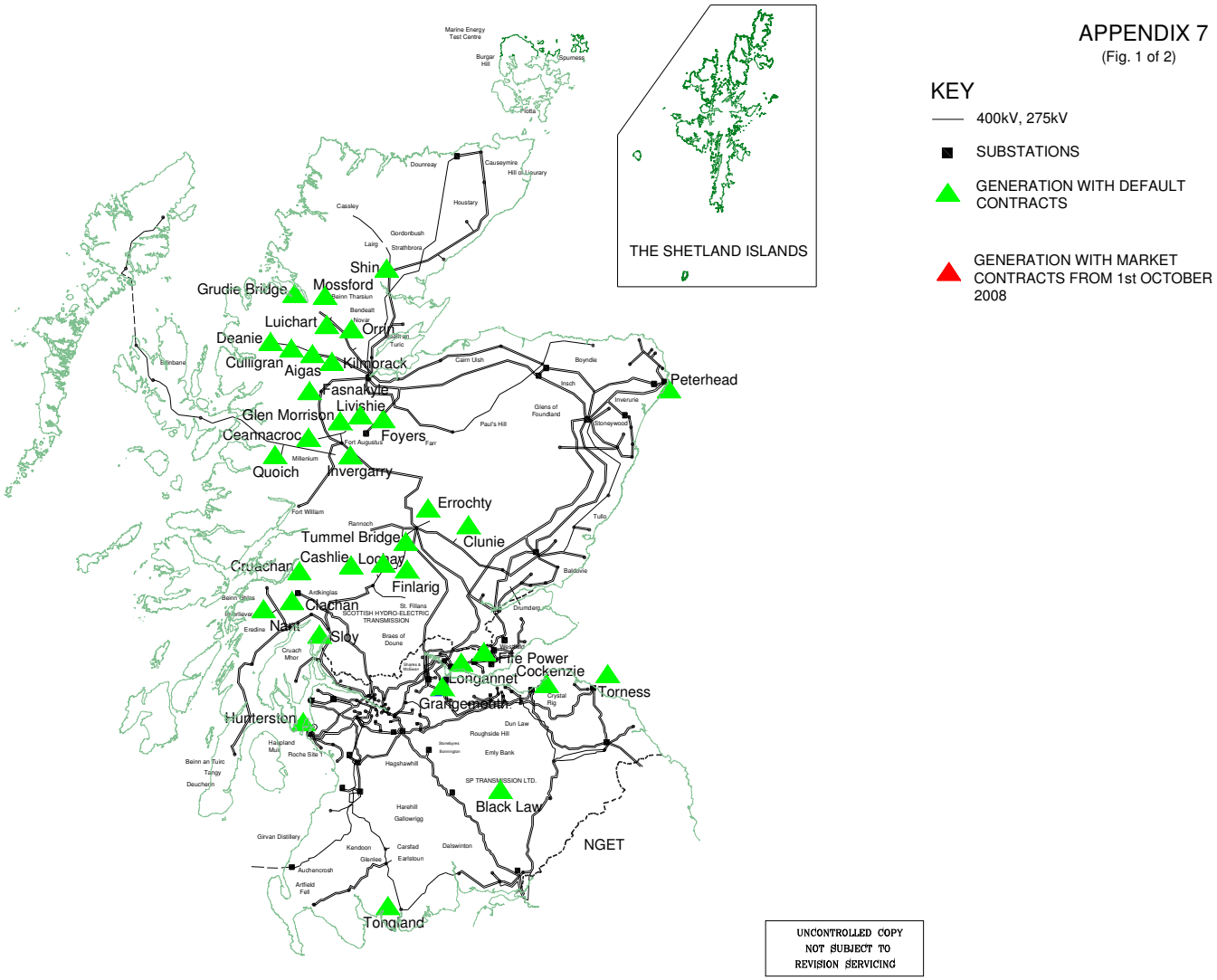
- *Would a Market Agreement for ORPS enable a desired contract for ERPS?*

- All other criteria in CUSC Schedule 3, paragraph 3, are covered by this methodology.

- In all cases, National Grid continued to consider interaction with forecast transmission constraints. In all cases, there were insignificant interactions with the constraints identified.

- In all cases, National Grid considered possible interaction with National Grid planned investments. The commissioning of new National Grid transmission equipment, which includes some reactive compensation equipment, influenced National Grid's view of forecast MVArh. All of the commissioning equipment is required for compliance with Transmission Licence Standards, and re-phasing of planned National Grid investments within a 12-month contract period is not a practical option.

Appendix 7 - Geographic Distribution between DPM and Market Contracts

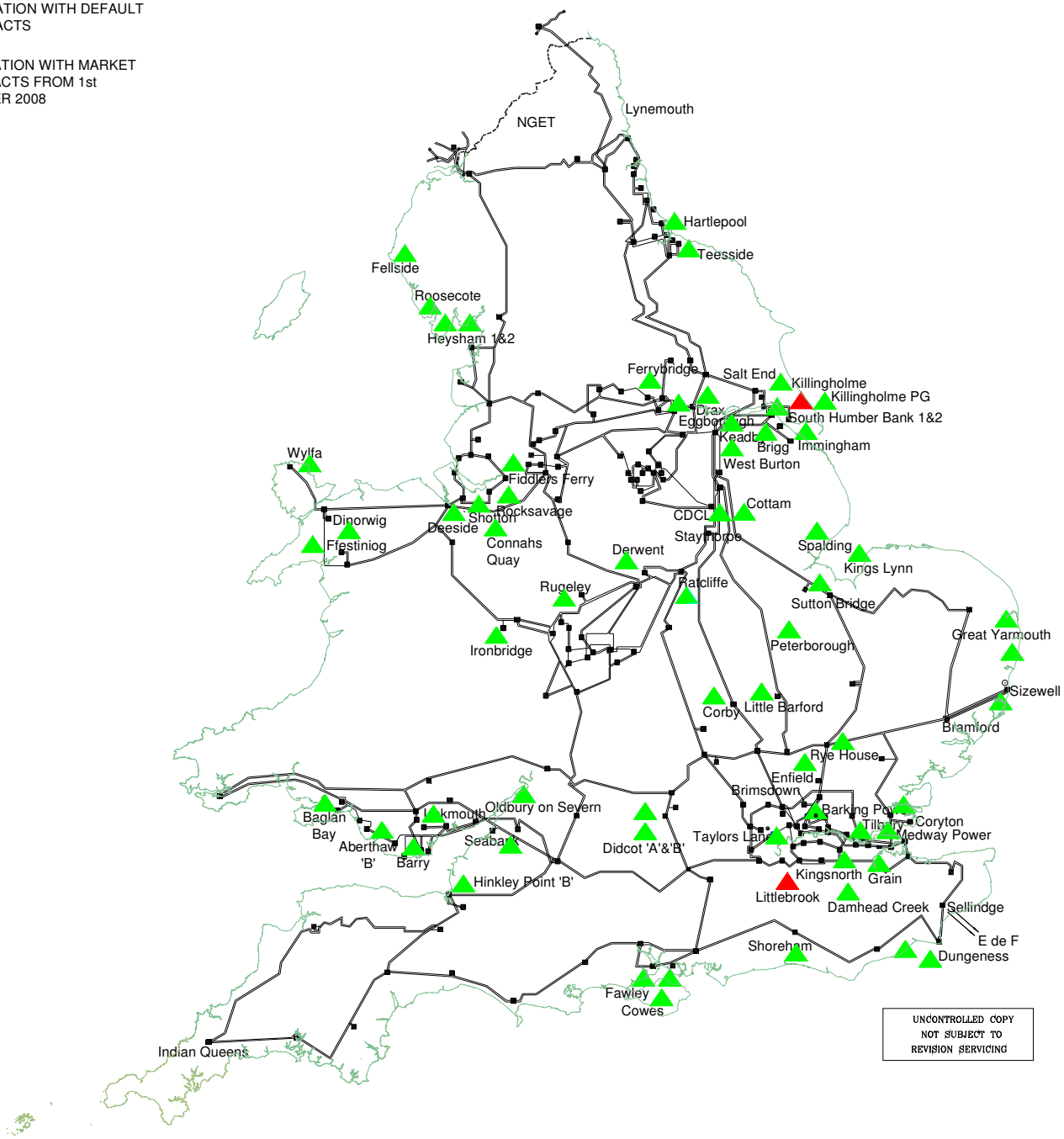


GENERATION (SCOTLAND) ELIGIBLE FOR REACTIVE POWER PAYMENTS
AS AT 1st APRIL 2009
SHOWING THE SPLIT BETWEEN DEFAULT AND MARKET CONTRACTS

APPENDIX 7
(Fig. 2 of 2)

KEY

400kV, 275kV
SUBSTATIONS
GENERATION WITH DEFAULT CONTRACTS
GENERATION WITH MARKET CONTRACTS FROM 1st OCTOBER 2008



GENERATION (ENGLAND AND WALES) ELIGIBLE FOR REACTIVE POWER PAYMENTS
AS AT 1st APRIL 2009
SHOWING THE SPLIT BETWEEN DEFAULT AND MARKET CONTRACTS

Appendix 8 - Contact Information

A8.1 Further report information, comments suggestions and enquiries can be directed to:

David Preston
Network Operations (B2)
National Grid
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

On telephone number: **01926 655909**
Email: **david.a.preston@uk.ngrid.com**

A8.2 For any other information please visit the National Grid website on the following address:

http://www.nationalgrid.com/uk/Electricity/Balancing/services/ReactivePower/markettender/