

2007 GB Seven Year Statement Update

August 2007

INTRODUCTION

We are pleased to present the August 2007 Update to our 2007 GB Seven Year Statement. The Updates are issued at regular intervals (normally quarterly), each reporting on the main developments since the previous issue and largely reflecting information changes notified to us by our customers. This is the second Update of our 2007 GB Seven Year Statement and reports on changes notified to us up to 31st August 2007.

1. 'GB SYS BACKGROUND' SUMMARY

	2007 GB SYS	May Update	August Update
Total Generation Capacity by 2013/14 (GW)	101.9	104.0	105.4
Total CCGT Capacity by 2013/14 (GW)	38.5	39.5	38.8
Unavailable Generating Units by 2013/14 (GW)	2.9	2.9	2.9
Plant Margin – 2007/08 (%)	27.4	26.9	26.5
Plant Margin – 2013/14 (%)	52.6	55.7	57.8

Notes:

1. Generation capacity values are based on station TEC values where possible.
2. Unavailable generating units are given in Table 3.11 of the GB SYS.

2. GENERATION

In the tables in the following sections, text in bold indicates differences between this update and the main 2007 GB SYS. The Consents column refers to Section 36 and (where appropriate) Section 14 consents for generation projects.

2.1 Transmission Access

Access to the GB Transmission System is provided through arrangements with NGET, acting as GBSO, under the Connection and Use of System Code (CUSC). The CUSC has applied across the whole of Great Britain since BETTA "go-live" (1 April 2005). Prior to BETTA "go-live", the CUSC applied in England and Wales but different arrangements applied in Scotland. The pre BETTA go-live generation offers and agreements between relevant TOs and Users needed to be converted into GB Offers.

Standard Condition C18 of the Electricity Transmission Licence places certain obligations on NGET as GBSO. The main requirements of C18 are to ensure that agreements with all existing users are in place by the BETTA go-live date (1 April 2005), and that offers for connection are made to all applicants in accordance with timescales specified in C18.

2.2 New Transmission Contracted Generation

The following projects have new contracts that have been signed recently, and were not previously in the SYS background.

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Connection Point	Tariff Zone	Consents
Gwynt Y Mor Stage 1	294	01/04/11	Gwynt Y Mor Offshore Wind Farm Ltd	Offshore Wind	St Asaph 400kV	13	No
Gwynt Y Mor Stage 2	294	01/04/12	Gwynt Y Mor Offshore Wind Farm Ltd	Offshore Wind	St Asaph 400kV	13	No
Gwynt Y Mor Stage 3	147	01/04/13	Gwynt Y Mor Offshore Wind Farm Ltd	Offshore Wind	St Asaph 400kV	13	No
Humber Gateway Stage 1	220	30/10/11	E.ON UK Renewable Developments Ltd	Offshore Wind	Hedon 275kV	9	No
Humber Gateway Stage 2	80	31/10/11	E.ON UK Renewable Developments Ltd	Offshore Wind	Hedon 275kV	9	No
TOTAL	1917	MW					

Notes:

- The capacities given above correspond to the sizes of the individual stages.

2.3 Planned Transmission Contracted Generation

The table lists future generation projects relevant to this update.

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Connection Point	Tariff Zone	Consents
Dersalloch	69	31/10/11	CRE Energy Ltd	Wind	Coylton 275kV	7	No
Docking Shoal Wind Farm	500	27/10/11	Centrica (DSW) Ltd	Wind	Walpole	13	No
Eredine Forest Wind (An Suidhe)	30	30/09/08	An Suidhe Wind Farm Ltd	Wind	Eredine Forest 33kV	5	Yes
Ewe Hill	66	31/10/09	CRE Energy Ltd	Wind	Ewe Hill	7	No
Fallago	144	27/11/09	FLR 2003 Ltd	Wind	Fallago	7	No
Grain Stage 1	860	31/10/10	E.ON UK plc	CCGT	Grain 400kV	17	Yes
Grain Stage 2	430	31/10/11	E.ON UK plc	CCGT	Grain 400kV	17	Yes
Lincs Wind Farm	250	01/07/09	Centrica (Lincs) Ltd	Wind	Walpole	13	No
Longpark	38	17/12/09	Wind Prospect Ltd	Wind	Longpark 132kV	7	No
Margree	70	30/05/13	NBW Wind Energy Ltd	Wind	Margree 132kV	7	No
Pembroke 2 Stage 1	1200	01/11/13	Milford Power Ltd	CCGT	Pembroke 400kV	15	No
Port Talbot	350	01/08/11	Prenergy Power Ltd	Woodchip	Margam 275kV	15	No
Race Bank Wind Farm	500	30/06/13	Centrica (RBW) Ltd	Wind	Walpole	13	No
Whitelee Stage 1	75.9	16/11/07	CRE Energy Ltd	Wind	Whitelee 33kV	7	Yes
Whitelee Stage 2	218.5	01/04/08	CRE Energy Ltd	Wind	Whitelee 33kV	7	Yes
Whitelee Stage 3	28.6	01/04/09	CRE Energy Ltd	Wind	Whitelee 33kV	7	Yes
TOTAL	4830	MW	CHANGE	1918.5	MW		

Notes:

2. The above projects were reported previously as follows:
 - Dersalloch: 75MW in 2010
 - Docking Shoal: 0MW in 2009
 - Eredine: 30MW in 2007
 - Ewe Hill: 92MW in 2009
 - Fallago: 180MW in 2009
 - Lincs: 0MW in 2008
 - Longpark, 47.5MW in 2008
 - Margree, 180MW in 2013
 - Pembroke 2 Stage 1: 400MW in 2010
 - Pembroke 2 Stage 2: 1600MW in 2011 (see section 2.6)
 - Port Talbot: 295MW in 2013
 - Race Bank: 0MW in 2010
 - Whitelee, 322MW in 2007

2.4 Planned Transmission Contracted Generation (BELLAs)

The table lists future generation projects relevant to this update.

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Connection Point	Tariff Zone	Consents
Broadmeadows	-	-	-	-	-	-	-
Greenock	55	2009	Greenock Wind Farm (Scotland) Ltd	Wind	Devol Moor 33kV	5	<i>Refused</i>
TOTAL	55	MW	CHANGE	-36	MW		

Notes:

1. The above projects were reported previously as follows:
 - Broadmeadows, 36MW in 2009
 - Greenock, Section 36 Consent applied for 59MW

2.5 Existing Transmission Contracted Generation Capacity (TEC)

The following table lists existing stations that are relevant to this update.

Station Name	Capacity (MW)	Effective Date	Company	Plant Type	Connection Point	Tariff Zone
Coryton	800	01/04/07	Coryton Energy Company Ltd	CCGT	Coryton South 400kV	17
Didcot B	1550	01/04/09	RWE Npower plc	CCGT	Didcot 400kV	18
TOTAL	2350	MW	CHANGE	107	MW	

Notes:

1. The above stations were previously reported as follows:
 - Coryton: 743MW
 - Didcot B: 1500MW

2.6 Transmission Contracted Generation beyond 2013/14

The following table lists generation projects with commissioning dates beyond 2013/14.

Station Name	Capacity (MW)	Company	Plant Type	Connection Point
Abernedd Stage 1	435	BP Alternative Energy International Ltd	CCGT	Baglan Bay
Abernedd Stage 2	435	BP Alternative Energy International Ltd	CCGT	Baglan Bay
<i>Dorenell Wind Farm</i>	180	Infinenergy Ltd	Wind	Keith Grid
Loch Luichart	66	LZN Ltd	Wind	Mossford
Pembroke 2 Stage 2	800	Milford Power Ltd	CCGT	Pembroke 400kV
Stromness Wave Farm, Orkney	22.5	CRE Energy Ltd	Wave	Kirkwall
Teesport	925	Coastal Energy Ltd	Integrated Coal/Gas CCT	Teesport 400kV
TOTAL	2863.5	MW		

Notes:

- The above projects were reported previously as follows:
 - Abernedd: new contract
 - Dorenell: formerly Scaul Hill
 - Loch Luichart: 190MW
 - Pembroke 2 Stage 1: 400MW in 2010 (see section 2.3)
 - Pembroke 2 Stage 2: 1600MW in 2011
 - Stromness: new contract
 - Teesport: new contract

3. DEMAND, CAPACITY TOTALS AND PLANT MARGINS

3.1 Generation Capacities

This table gives information on capacity totals for all directly-connected and Large Power Stations. The winter peak demands are customer-based forecasts in MW and are used to calculate plant margins in section 3.2. Capacity values are based on station TEC values where possible.

Generation Background	Total Capacity (MW)						
	07/08	08/09	09/10	10/11	11/12	12/13	13/14
GB SYS background (SYS)	77812	83093	88373	95609	100344	102731	105431
Consents (C)	77812	79231	81752	82952	83488	83488	83496
Existing or Under Construction (E,UC)	77812	79091	80870	81210	81310	81310	81317
Winter Peak Demand	61500	62600	63600	64600	65400	66200	66800

Notes:

1. The figures are based on the assumed year of commissioning or decommissioning.
2. The SYS background includes all planned generation with or without Section 36 and/or Section 14 consent.
3. The Consents background includes all planned generation that has both Section 36 and Section 14 consent.
4. The Existing or Under Construction background includes all generation projects currently under construction and all planned closures of generation.
5. The capacity totals above do not include the Moyle Interconnector importing TEC value (80MW), as the interconnector is assumed to be exporting to Northern Ireland at the time of winter peak.
6. The winter peak demands (customer-based forecast) are used in section 3.2 to calculate plant margins for each of the above backgrounds; these demands exclude station demand, but include the export to Northern Ireland (300MW).
7. Projects assumed to be under construction in 2007/08 (for connection beyond 2007/08) include Marchwood, Staythorpe, Immingham Stage 2, Netherlands Interconnector, Glendoe Hydro and Fasnakyle Hydro Extension.
8. Plant contracted for 2007/08 and under construction includes Langage Stage 1 CCGT and the following wind farms: Dalswinton, Greenknowes, Minsca, Whitelee, Ardkinglas, Ben Aketil and Ben Aketil (Add. Cap.), Drumderg, Eredine, Millennium, Strath Brora and Tullo.

3.2 Plant Margins

The following projected margins include changes in generation capacity given in section 3.1 above for directly-connected and Large Power Stations and use the customer-based demand forecasts given in section 3.1.

Generation Background	Plant Margin (%)						
	07/08	08/09	09/10	10/11	11/12	12/13	13/14
GB SYS background (SYS)	26.5	32.7	39.0	48.0	53.4	55.2	57.8
Consents (C)	26.5	26.6	28.5	28.4	27.7	26.1	25.0
Existing or Under Construction (E,UC)	26.5	26.3	27.2	25.7	24.3	22.8	21.7

Notes:

1. The three different backgrounds correspond to those in section 3.1.

4. TRANSMISSION SYSTEM

The following items are reported as either significant changes to the planned transmission system, or revisions to construction programmes.

Mybster (2009)

Upgrade the existing 2 x 30MVA and 1 x 60MVA transformers at Mybster 132/33kV substation to 2 x 90MVA transformers by 30/09/09.

Norwich (2010)

Install a new (5th) 400/132kV SGT by 31/10/10.

Hedon (2011)

Construct a new 7 bay 275kV AIS substation at Hedon adjacent to the existing Saltend North substation comprising 4 feeder bays, 2 skeleton generator bays and 1 bus coupler bay. Connect the new substation by way of a turn in of the YYW 275kV route adjacent to Saltend North. Hotwire the existing YYW route between Saltend North, Saltend South and Creyke Beck to achieve operation of the circuit at 90°C

Construct a new 400kV double circuit overhead line between the new 275kV Hedon substation and Creyke Beck of L8 tower construction, conductored with twin Sorbus (2X570mm²) conductor for operation at 75°C, including approximately 750m of cabling to pass under an existing railway line and obtain entry to Creyke Beck 400kV substation. Install two 400/275kV 1100MVA inter-bus transformers at the Hedon 275kV substation and connect directly onto the new 400kV double circuit to Creyke Beck. Extend the existing 400kV substation at Creyke Beck by 2 bays and connect the new 400kV double circuit from Hedon.

St. Asaph (2011)

Construct a new 4-bay 400kV GIS double-busbar substation at St. Asaph including one skeleton generator bay. Construct a new 'tee' connection from the Deeside-Pentir 400kV double circuit overhead line to the new substation comprising:

- Replace tower 4ZB167 with a tee-off tower.
- Construct a new 0.5km 400kV single circuit overhead line and single cable circuit between the new St Asaph 400kV substation and the Deeside-Pentir 400kV double-circuit overhead line route.
- Construct a new cable sealing end compound at the tee point.
- Connect the new circuits to the Deeside-Pentir 400kV double-circuit overhead line route by means of a double tee arrangement.

Table B.3.1a – SHETL Existing Transformer Details, Winter 2007/08

An amended version of SYS Table B.3.1a is given below.

Node 1	Node 2	R (% on 100 MVA)	X (% on 100 MVA)	B (% on 100 MVA)	Rating (MVA)
ABNE1Q	ABNE30	1.050	27.980	0.000	60
ABNE1R	ABNE30	1.050	28.500	0.000	60
ALNE1Q	ALNE30	1.820	27.830	0.000	60
ALNE1R	ALNE30	1.800	27.670	0.000	60
ARBR1Q	ARBR30	0.700	28.290	0.000	45
ARBR1R	ARBR30	0.700	28.290	0.000	45
ARDK10	ARDK32	0.750	25.000	0.000	45
ARMO10	ARMO30	0.880	26.444	0.000	45
BEAU11	BEAU30	1.040	27.730	0.000	45
BEAU12	BEAU30	1.040	27.730	0.000	45
BOAG1Q	BOAG30	2.130	35.330	0.000	30
BOAG1R	BOAG30	1.770	39.700	0.000	30
BRAC1Q	BRAC30	0.900	27.850	0.000	60
BRAC1R	BRAC30	0.900	27.600	0.000	60
BRID1Q	BRID31	1.000	28.333	0.000	60
BRID1R	BRID31	1.000	28.333	0.000	60
BROA1Q	BROA30	1.190	39.000	0.000	30
BROR10	BROR30	1.820	67.130	0.000	15
BUMU1Q	BUMU30	0.880	24.470	0.000	60
BUMU1R	BUMU30	0.880	24.470	0.000	60
CAAD1Q	CAAD30	1.040	27.650	0.000	60
CAAD1R	CAAD30	1.040	27.650	0.000	60
CASS1Q	CASS30	6.140	88.700	0.000	10
CHAR1Q	CHAR30	0.540	27.778	0.000	90
CHAR1R	CHAR30	0.540	27.778	0.000	90
CLAY1Q	CLAY30	0.870	24.920	0.000	60
CLAY1R	CLAY30	0.870	24.920	0.000	60
COUA1Q	COUA31	1.050	27.890	0.000	45
COUA1R	COUA31	1.050	27.890	0.000	45
CRAI10	CRAI30	1.780	29.900	0.000	30
CRAI1Q	CRAI30	1.750	30.270	0.000	30
DAAS20	DAAS30	0.417	20.000	0.000	120
DOUN10	DOUN50	4.150	53.000	0.000	30
DOUN10	DOUN50	4.340	52.500	0.000	30
DUBE1Q	DUBE30	1.520	39.400	0.000	30
DUDH1Q	DUDH30	0.780	24.930	0.000	60
DUDH1R	DUDH30	0.780	23.930	0.000	60
DUGR1Q	DUGR30	2.110	30.200	0.000	30
DUNO1Q	DUNO30	2.000	24.490	0.000	45
DUNO1R	DUNO30	2.000	24.580	0.000	45
DYCE1Q	DYCE30	1.350	26.670	0.000	60
DYCE1R	DYCE30	1.360	26.730	0.000	60
ELGI1Q	ELGI30	0.630	27.980	0.000	90
ELGI1R	ELGI30	0.630	27.780	0.000	90
ERED10	ERED30	2.857	45.714	0.000	35
FAAR1Q	FAAR31	0.900	28.340	0.000	90

Node 1	Node 2	R (% on 100 MVA)	X (% on 100 MVA)	B (% on 100 MVA)	Rating (MVA)
FAAR1R	FAAR32	0.900	28.340	0.000	90
FAUG1Q	FAUG30	2.230	64.330	0.000	15
FIDD1Q	FIDD30	3.120	36.370	0.000	30
FIDD1R	FIDD30	3.190	35.500	0.000	30
FRAS1Q	FRAS30	1.040	28.000	0.000	45
FRAS1R	FRAS30	1.040	28.000	0.000	45
FWIL1Q	FWIL30	0.880	27.330	0.000	60
FWIL1R	FWIL30	0.880	27.670	0.000	60
GLAG1Q	GLAG31	0.820	19.330	0.000	60
GLAG1R	GLAG32	0.820	19.600	0.000	60
GLFA10	GLFA30	1.111	28.000	0.000	90
INNE1Q	INNE30	0.890	27.870	0.000	60
INNE1R	INNE30	0.900	28.000	0.000	60
INNE1T	INNE30	0.700	21.000	0.000	60
KEIT10	KEIT31	0.540	27.778	0.000	90
KEIT10	KEIT31	0.540	27.778	0.000	90
KIIN10	KIIN30	2.420	40.670	0.000	15
KILO10	KILO30	0.880	27.780	0.000	45
KINT10	KINT30	1.040	27.650	0.000	60
KINT10	KINT30	0.780	25.000	0.000	60
LAIR1Q	LAIR30	3.500	50.500	0.000	20
LOCN1Q	LOCN30	2.857	45.714	0.000	35
LUNA1Q	LUNA30	0.700	21.000	0.000	90
LUNA1R	LUNA30	0.700	21.000	0.000	90
LYND1Q	LYND30	0.780	24.300	0.000	60
LYND1R	LYND30	0.780	24.730	0.000	60
MACD1Q	MACD31	1.100	27.700	0.000	45
MILC1R	MILC30	0.780	24.830	0.000	60
MILC1S	MILC30	0.880	28.130	0.000	60
MILW1Q	MILW30	1.430	23.000	0.000	70
MYBS1Q	MYBS30	0.895	23.917	0.000	60
MYBS1R	MYBS30	1.990	32.870	0.000	30
MYBS1R	MYBS30	1.636	33.730	0.000	30
NAIR1Q	NAIR30	1.060	28.600	0.000	60
NAIR1R	NAIR30	1.050	28.600	0.000	60
PEHE11	PEHE2Q	0.300	9.970	0.000	240
PEHE11	PEHE2R	0.230	8.900	0.000	240
PEHE11	PEHS50	2.580	42.330	0.000	15
PEHE1Q	PEHE51	1.260	32.400	0.000	50
PEHE1R	PEHE52	1.240	32.600	0.000	50
PEHG1Q	PEHG30	1.050	28.530	0.000	45
PEHG1R	PEHG30	1.050	28.400	0.000	45
PERS1Q	PERS30	0.800	18.980	0.000	60
PERS1R	PERS30	0.800	19.520	0.000	60
PORA1Q	PORA30	1.800	29.870	0.000	30
PORA1R	PORA30	1.800	29.870	0.000	30
REDM1Q	REDM30	0.910	27.000	0.000	60
REDM1R	REDM30	0.900	27.830	0.000	60
SFEG1Q	SFEG50	2.280	93.870	0.000	30
SFEG1R	SFEG50	2.280	92.800	0.000	30

Node 1	Node 2	R (% on 100 MVA)	X (% on 100 MVA)	B (% on 100 MVA)	Rating (MVA)
SFEM1Q	SFEM51	1.800	41.190	0.000	27
SFEM1R	SFEM52	1.800	41.190	0.000	27
STRB22	STRB3W	0.500	20.000	0.000	75
STRI1Q	STRI30	1.040	27.730	0.000	45
STRI1R	STRI30	1.040	27.730	0.000	45
TARL1Q	TARL30	2.420	41.000	0.000	30
TARL1R	TARL30	2.130	38.530	0.000	30
TAYN1Q	TAYN30	1.800	28.000	0.000	90
TAYN1R	TAYN30	1.800	28.000	0.000	90
THSO1Q	THSO30	0.870	29.030	0.000	60
THSO1R	THSO30	0.733	23.370	0.000	60
WIOW1Q	WIOW30	0.880	24.500	0.000	60
WIOW1R	WIOW30	0.880	24.500	0.000	60
WOHI1Q	WOHI30	0.620	27.240	0.000	90
WOHI1R	WOHI30	0.610	27.310	0.000	90

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