

2006 GB Seven Year Statement Update

January 2007

INTRODUCTION

We are pleased to present the January 2007 Update to our 2006 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 fourth and final Update of our 2006 GB Seven Year Statement and reports on changes notified to us up to 31st January 2007.

1. 'GB SYS BACKGROUND' SUMMARY

	2006 GB SYS	May Update	August Update	October Update	January Update
Total Generation Capacity by 2012/13 (GW)	94.5	99.1	102.6	103.4	101.5
Total CCGT Capacity by 2012/13 (GW)	33.5	36.1	38.4	38.7	38.7
Unavailable Generating Units by 2012/13 (GW)	3.4	3.4	3.4	2.9	2.9
Plant Margin – 2006/07 (%)	20.9	21.3	22.1	22.1	22.3
Plant Margin – 2012/13 (%)	38.9	46.2	51.3	52.6	49.7

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. The change for the October update is due to the return to service of Fawley unit 1.

2. GENERATION

In the following tables, text in bold indicates differences between this update and the main 2006 GB SYS and subsequent updates. 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 contracts that have been signed.

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Connection Point	Tariff Zone	Consents
Fallago	180	27/05/2009	FLR 2003 Ltd	Wind	Fallago Ridge 400kV	9	No
Rhigos	299	31/10/2009	Nuon UK Projects (SR03) Ltd	Wind	Rhigos 400kV	19	No
Pencloe	63	25/02/2010	NBW Wind Energy Ltd	Wind	Pencloe 132kV	11	No
Balunton	150	04/03/2010	NBW Wind Energy Ltd	Wind	Balunton 132kV	11	No
Ulzieside	69	06/05/2010	NBW Wind Energy Ltd	Wind	Ulzieside 132/33kV	11	No
Sheringham Shoal Offshore Wind Farm	315	31/10/2010	Scira Offshore Energy Ltd	Offshore Wind	Walpole 400kV	14	No
TOTAL	1076	MW					

2.3 Modifications to 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
Immingham Stage 2	601	31/10/2008	Immingham CHP Ltd	CHP	Humber Refinery 400kV	11	Yes
Lincs Offshore Wind Farm	0	31/10/2008	Offshore Windpower Ltd	Wind	Walpole 400kV	14	No
Docking Shoal Offshore Wind Farm	0	31/10/2009	Centrica (DSW) Ltd	Wind	Walpole 400kV	14	No
Gordonbush	87.5	15/11/2009	SSE Generation Ltd	Wind	Gordonbush 275/33kV	2	No
Clyde	519	14/12/2009	Airtricity Developments (Scotland) Ltd	Wind	Clyde North / Clyde South 275/33kV	9	No
Griffin	216	23/04/2010	Greenpower (Griffin) Ltd	Wind	Griffin 132/33kV	5	No
Andershaw	45	25/05/2010	Catamount Energy Ltd	Wind	Andershaw 33kV	9	No
Race Bank Offshore Wind Farm	0	31/10/2010	Centrica (RBW) Ltd	Wind	Walpole 400kV	14	No
Aultmore	60	31/10/2011	AMEC Project Investments Ltd	Wind	Aultmore Windfarm 132kV	2	No

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Connection Point	Tariff Zone	Consents
Clashindarroch	112.7	31/10/2011	AMEC Project Investments Ltd	Wind	Clashindarroch 33kV	2	No
Glendoe	100	31/10/2011	SSE Generation Ltd	Hydro	Glendoe 132/33kV	4	Yes
Strathy North & South Wind	226	31/10/2011	SSE Generation Ltd	Wind	Strathy North 132/33kV Strathy South 132/33kV	2	No
Fairwind	126	31/10/2012	Fairwind (Orkney) Ltd	Wind	Kirkwall / St. Mary 33kV	2	No
Parc (South Lochs)	250	04/05/2012	SSE Generation Ltd	Wind	Stornoway 132kV	3	No
Abercairney	-	-	-	-	-	-	-
Jonscleugh	-	-	-	-	-	-	-
Shell Flats	-	-	-	-	-	-	-
Westernmost Rough	-	-	-	-	-	-	-
TOTAL	1742.2	MW	CHANGE	-1805	MW		

Notes:

1. The above projects were reported previously as follows:

- Gordonbush, 87.5MW in 2007/08
- Griffin, 216MW in 2007/08
- Tormywheel, 40.5MW in 2007/08
- Abercairney, 66MW in 2008/09 (withdrawn)
- Black Craig 40MW, 2008/09
- Clashindarroch, 112.7MW in 2008/09
- Clyde, 519MW in 2008/09
- Drone Hill, 32.4MW in 2008/09
- Glendoe, 100MW in 2008/09
- Lincs Offshore Wind Farm, 250MW in 2008/09
- Strathy North & South, 226MW in 2008/09
- Jonscleugh, 50MW in 2009/10 (withdrawn)
- Docking Shoal Wind Farm, 500MW in 2009/10
- Parc (South Lochs), 250MW in 2009/10
- Shell Flats, 315MW in 2009/10 (withdrawn)
- Westernmost Rough, 240MW in 2010/11 (withdrawn)
- Aultmore, 60MW in 2010/11
- Fairwind, 126MW in 2010/11
- Race Bank Wind Farm, 500MW in 2010/11
- Andershaw, 45MW in 2012/13

2.4 Modifications to Transmission Contracted Generation (BELLAs)

The table lists future generation projects relevant to this update that have BELLA contracts (Bilateral Embedded Licence Exemptable Large Power Station Agreement). These stations do not have a TEC; their output is described in Appendix A of a BELLA as "Size of Power Station". This output is listed as "Capacity (MW)" in the following table. For further details please refer to Chapter 3 of the main SYS.

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Connection Point	Tariff Zone	Consents
Tangy (Add. Cap.)	6	01/03/2007	SSE Generation Ltd	Wind	Carradale 33kV	7	No
Tormywheel	32.4	06/10/2007	PM Renewables Ltd	Wind	Polkemmet 33kV	9	No
Tullo Wind Farm, Laurencekirk	13.5	01/02/2008	Tullo Wind Farm Ltd	Wind	Bridge of Dun 33kV	5	No
Fairburn Wind Farm	42	31/05/2008	SSE Generation Ltd	Wind	Orrin 132kV	2	No
Drone Hill	37.8	01/07/2008	PM Renewables Ltd	Wind	Berwick 33kV	9	No
Lairg - Achany	62	31/07/2008	SSE Generation Ltd	Wind	Lairg 33kV	2	No
Akron Wind (Caithness)	20	31/08/2008	SSE Generation Ltd	Wind	Dounreay 33kV	2	No
Largie Wind, South Kintyre	40	01/10/2008	Eurus Energy UK Ltd	Wind	Carradale 33kV	7	No
Berry Burn	82.5	31/10/2011	Catamount Energy Ltd	Wind	Berry Burn 33kV	2	No
Causeymire Phase 2	6.9	31/10/2011	Causeymire Wind Farm Ltd	Wind	Mybster 33kV	2	Yes
Dunbeath Wind Farm	55	31/10/2011	Dunbeath Wind Energy Ltd	Wind	Dunbeath 33kV	2	No
Tomatin Wind Farm	30	31/10/2011	Eurus Energy UK Ltd	Wind	Boat of Garten 33kV	2	No
Beatrice Pilot	10	31/10/2012	Talisman Energy (UK) Ltd	Wind	Dunbeath 33kV	2	No
Black Craig 40MW	40	31/10/2012	Argyll Wind Farms	Wind	Dunoon	7	No
Camster	62.5	31/10/2012	Powergen Renewables Ltd	Wind	Mybster 33kV	2	No
Calliachar Wind Farm, Aberfeldy	62.1	31/10/2012	I & H Brown Ltd	Wind	Errochty	5	No
Mid Hill, Stonehaven	75	31/10/2012	Mid Hill Wind Ltd	Wind	Mid Hill 33kV	2	No
Montreathmont Moor Wind, Angus	40	31/10/2012	Scottish Hydro-Electric Power Distribution Ltd	Wind	Bridge of Dun BSP 33kV	2	No
Snowgoat Glen, Dunning, Perthshire	28	31/10/2012	Snowgoat Glen Wind Farm Ltd	Wind	Braco	5	No
Allt Dearg Wind Farm, North Kintyre	-	-	-	-	-	-	-

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Connection Point	Tariff Zone	Consents
Bogan Lea	-	-	-	-	-	-	-
TOTAL	745.7	MW	CHANGE	-56.5	MW		

Notes:

- The above projects were reported previously as follows:
 - Tangy (Add. Cap.), 6MW in 2005/06
 - Tullo, 13.5MW in 2005/06
 - Akron, 20MW in 2007/08
 - Bogan Lea, 8.8MW in 2007/08: the size of Large Power Station in the SHETL has been increased from 5MW to 10MW, therefore this wind farm has been withdrawn.
 - Fairburn, 42MW in 2007/08
 - Lairg, 62MW in 2007/08
 - Largie, 40MW in 2007/08
 - Tormywheel, 40.5MW in 2007/08
 - Beatrice Pilot, 10MW in 2008/09
 - Berry Burn, 82.5MW in 2008/09
 - Black Craig 40MW, 40MW in 2008/09
 - Drone Hill, 32.4MW in 2008/09
 - Calliacher, 62.1MW in 2010/11
 - Camster, 62.5MW in 2008/09
 - Causeymire Phase 2, 6.9MW in 2008/09
 - Dunbeath, 55MW in 2008/09
 - Mid Hill, 75MW in 2008/09
 - Montreathmont, 2008/09
 - Snowgoat Glen, 2008/09
 - Tomatin, 30MW in 2008/09
 - Allt Dearg, 45MW in 2012/13 (withdrawn)

2.5 Existing Transmission Contracted Generation Capacity (TEC)

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

Station Name	Unit(s)	Capacity (MW)	Effective Date	Company	Plant Type	Connection Point	Tariff Zone
Dinorwig	all	1413	From 09/10/06 to 31/03/07	First Hydro Company	Pumped Storage	Dinorwig 400kV	13
Dungeness A	all	435	01/04/2006	Magnox Electric Ltd	Nuclear Magnox	Dungeness	15
Enfield	all	408	01/11/2007	E.ON UK plc	CCGT	Brimsgate 132kV	17
Dungeness A	all	0	01/04/2007	Magnox Electric Ltd	Nuclear Magnox	Dungeness	15
Sizewell A	all	0	01/04/2007	Magnox Electric Ltd	Nuclear Magnox	Sizewell	15
See Note 4	-	-76.46	-	-	-	-	-
TOTAL		2179.54	MW	CHANGE	164.54	MW	

Notes:

- Dinorwig has a Limited Duration TEC (LDTEC) of 213MW. This means that its TEC rises from 1200MW to 1413MW on 09/10/06 and falls back to 1200MW after 31/03/07. Its TEC then rises to 1644MW in 2008/09 as previously reported in the SYS. The LDTEC is not included in the figure for total change in TEC.

2. The above stations were previously reported as follows:
 - Dungeness A, 425MW
 - Enfield, 390MW
 - Sizewell A, 440MW
3. The definition of the size of a Large Power Station in the SHETL area has been increased from 5MW to 10MW. This means that stations in the range 5MW to 10MW are no longer included in the generation background. The peak demands in section 3 have been adjusted accordingly. The affected stations are as follows:
 - Allt na Lairige, 6MW
 - Baldovie, 8.3MW
 - Beinn Ghlas, 8.66MW
 - Foyers Falls, 5MW
 - Gaur, 7.5MW
 - International Paper, Inverurie, 7.5MW
 - Loch Gair, 6MW
 - Marine Energy Test Centre, 7MW
 - Spurness, 7.5MW
 - Sron Mhor, 5.2MW
 - Striven, 7.8MW

2.6 Existing Transmission Contracted Generation Capacity (CEC)

The following table lists changes in Connection Entry Capacity (CEC) for existing stations.

Station Name	Unit(s)	CEC (MW)	Effective Date	Company	Plant Type	Connection Point	Tariff Zone
Grain	all	1458	08/11/06	E.ON UK plc	Oil + AGT	Grain 400kV	15
TOTAL		1458	MW	CHANGE	50.0	MW	

Notes:

1. The above stations were previously reported as follows:
 - Grain unit 1 and unit 4 each had a CEC of 675MW, which has now increased to 700MW

2.7 New Transmission Contracted Generation beyond 2012/13

The following table lists generation projects with commissioning dates beyond 2012/13.

Station Name	Capacity (MW)	Company	Plant Type	Connection Point
Bristol Channel Offshore Windfarm	1512	Channel Energy Ltd	Offshore Wind	Alverdiscott 400kV
Fasnakyle P/Stn Compensation Hydro (unit 4)	7.5	SSE Generation Ltd	Hydro	Fasnakyle 33kV
Margree	180	NBW Wind Energy Ltd	Wind	Margree 132kV
Prenergy Woodchip Power Station, Port Talbot	295	Prenergy Power Ltd	Woodchip	Margam 275kV
TOTAL	1994.5	MW		

2.8 Transmission Contracted Generation beyond 2012/13

The following table lists generation projects with commissioning dates beyond 2012/13.

Station Name	Capacity (MW)	Company	Plant Type	Connection Point
Baillie & Bardnaheigh Wind	57	Baillie Wind Farm Ltd	Wind	Dounreay 132/33kV
Black Craig 90MW Wind Farm, Dunoon	90	Infinenergy Ltd	Wind	Dunoon
Eishken Estate, Isle of Lewis	300	Beinn Mhor Power Ltd	Wind	Stornoway 132kV
Loch Luichart Wind, Conon Valley	190	Infinenergy Ltd	Wind	Beauly 132kV
North Nesting	250	SSE Generation Ltd	Wind	Caithness 132kV
Novar 2, Alness	32	Novar 2 Wind Farm Ltd	Wind	Alness
Shebster Wind Farm, by Reay, Caithness	-	-	-	-
Stroupster Wind Farm, near Wick, Caithness	31.5	Stroupster Wind Farm Ltd	Wind	Thurso
TOTAL	950.5	MW		

Notes:

1. The above stations were previously reported as follows:

- Baillie & Bardnaheigh, 57MW in 2010/11
- Black Craig 90MW, 2012/13
- Eishken, 300MW in 2010/11
- Luichart, 256 MW in 2012/13
- North Nesting, 250MW in 2012/13
- Novar 2, 32MW in 2010/11
- Stroupster, 31.5MW in 2010/11

2. The following stations have BELLAs:

- Novar 2
- Shebster (withdrawn)
- Stroupster

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)						
	06/07	07/08	08/09	09/10	10/11	11/12	12/13
GB SYS background (SYS)	76955	78481	84534	87232	94904	98477	101472
Consents (C)	76955	77204	79398	79598	79043	79150	80000
Existing or Under Construction (E,UC)	76955	76032	77331	77331	76776	76776	77626
Winter Peak Demand	62900	63800	64700	65500	66300	67000	67800

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 winter peak demands (customer-based growth forecasts based on 2005/6 outturn) 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.
6. Due to the redefinition of the size of a Large Power Station in SHETL are being redefined from 5MW to 10MW, the peak demands have been reduced by 18.5MW.

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 (%)						
	06/07	07/08	08/09	09/10	10/11	11/12	12/13
GB SYS background (SYS)	22.3	23.0	30.7	33.2	43.1	47.0	49.7
Consents (C)	22.3	21.0	22.7	21.5	19.2	18.1	18.0
Existing or Under Construction (E,UC)	22.3	19.2	19.5	18.1	15.8	14.6	14.5

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.

Blyth (2007/08)

Install two new (1st and 2nd) MSCs at Blyth 275kV substation.

Grendon (2007/08)

Install two new (3rd and 4th) 225MVAr MSCs at Grendon 400kV substation.

Harker (2007/08)

Install a new (1st) 150MVAr MSC at Harker 275kV substation.

Wymondley (2007/08)

Install two new (2nd) 225MVAr MSC at Wymondley 400kV substation.

Bushbury (by 2008/09)

Replace two 275/132kV transformers at Bushbury substation by 31/10/2008.

East Claydon (2008/09)

Install a new (2nd) 225MVAr MSC at East Claydon 400kV substation.

Harker (2008/09)

Install a new (1st) 225MVAr MSC at Harker 400kV substation.

Balunton (2009/10)

Establish a new 132kV substation at Balunton, including two new 90MVA 132/33kV transformers. Construct a new 132kV Trident overhead line between Mark's Hill and Balunton.

Fallago (2009/10)

Establish a new 400kV double-busbar substation at Fallago. Turn in the Torness-Smeaton 400kV circuit to form Torness-Fallago and Fallago-Smeaton 400kV circuits.

Pencloe (2009/10)

Establish a new 132kV substation at Pencloe, including two new 90MVA 132/33kV transformers. Construct a new 132kV double-circuit underground cable from the Windy Standard collector substation to Pencloe.

Reactive Compensation (2009/10)

The following new equipment will now not be installed:

- Aldwarke 275kV, 1st 150MVAr MSC
- Kitwell 275kV, 1st 150MVAr MSC
- Oldbury 275kV, 1st 150MVAr MSC
- Stalybridge 275kV, 1st 150MVAr MSC
- Daines 400kV, 1st 225MVAr MSC

- Eaton Socon 400kV, 1st 225MVAr MSC
- Staythorpe 400kV, 1st, 2nd & 3rd 225MVAr MSCs

Feckenham (2010/11)

Install two new (1st and 2nd) 225MVAr MSCs at Feckenham 400kV substation. Install a new (1st) 150MVAr MSC at Feckenham 275kV substation.

Stella West (2010/11)

Install a new (1st) 225MVAr MSC at Stella West 400kV substation.

Willington East (2010/11)

Install a new (2nd) 225MVAr MSC at Willington East 400kV substation.

Reactive Compensation (2010/11)

The following new equipment will now not be installed:

- High Marnham 400kV, 1st 225MVAr MSC
- Willington East 400kV, 1st 225MVAr MSC

Ulzieside (2010/11)

Establish a new 132kV substation at Ulzieside, including two new 90MVA 132/33kV transformers. Construct a new 2km 132kV double-circuit underground cable from the Whiteside Hill "T" to Ulzieside.

Harker (2011/12)

Install a new (2nd) 225MVAr MSC at Harker 400kV substation.

Amlwch (by 2012/13)

Construct a new 4-bay, indoor, double-busbar, GIS 400kV substation at Amlwch.

Heysham (by 2012/13)

Extend Heysham 400kV substation to provide a new skeletal generation bay. Install a new section switch in the main bar and rebuild one of the existing section switches to accommodate the extension. Install a new GIS reserve bus section breaker, including two new isolators, at Heysham 400kV substation.

Overhead Line Works (by 2012/13)

Reconductor the Cellarhead-Macclesfield and Cellarhead-Daines 400kV overhead line circuits with 2 × 620mm² GZTACSR GAP conductor.

Overhead Line Works (by 2012/13)

Construct a new 400kV double-circuit overhead line of length approximately 7.5km, from the existing Pentir-Wylfa 400kV double-circuit overhead line, to a point near Amlwch, using L2 towers and 2 × 700mm² conductor. Connect the new line to the existing Pentir-Wylfa 400kV double-circuit overhead line using a double-tee arrangement, including a 300m section of underground cable. Connect the new line to the new Amlwch 400kV substation by constructing a new 400kV double-circuit underground cable of length approximately 1km.

Pelham (2012/13)

Install a two new (1st and 2nd) 225MVA_r MSCs at Pelham 400kV substation.

Whitegate (by 2012/13)

Install a 150MVA_r MSC at Whitegate 275kV substation.

Wymondley (2012/13)

Install a two new (3rd and 4th) 225MVA_r MSCs at Wymondley 400kV substation.

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