

2007 GB Seven Year Statement Update

May 2007

INTRODUCTION

We are pleased to present the May 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 first Update of our 2007 GB Seven Year Statement and reports on changes notified to us up to 7th June 2007.

1. 'GB SYS BACKGROUND' SUMMARY

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

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.

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 contracts that have been signed recently.

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Connection Point	Tariff Zone	Consents
Beinn an Turic 2	60	30/09/12	CRE Energy Ltd	Wind	Carradale	5	No
Brine Field	1020	31/10/11	Thor Cogeneration Ltd	CCGT	Brine Field 400kV	10	No
Hatfield	800	31/12/11	Powerfuel plc	IGCC with CCS	Thorpe Marsh	13	No
Sheringham Shoal	315	31/10/10	Scira Offshore Energy Ltd	Offshore Wind	Sall 132kV	14	No
TOTAL	2195	MW					

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
Balunton	-	-	-	-	-	-	-
Cruach Mor	-	-	-	-	-	-	-
Dunlaw Extension	29.75	31/03/09	CRE Energy Ltd	Wind	Dunlaw Extension	7	No
Edinbane Wind, Skye	42	01/02/09	AMEC Project Investments Ltd	Wind	Edinbane 132kV	3	Yes
Greater Gabbard Offshore Windfarm	500	01/10/09	Greater Gabbard Offshore Winds	Offshore Wind	Leiston 132kV	13	Yes
Heysham Offshore Windfarm	140	31/10/08	Heysham Offshore Wind Ltd	Offshore Wind	Heysham 132kV	9	Yes
Netherlands Interconnector Stage 1	0	31/10/09	BritNed Development Ltd	HVDC Link	Grain 400kV	17	Yes
Netherlands Interconnector Stage 2	800	01/04/10	BritNed Development Ltd	HVDC Link	Grain 400kV	17	Yes
Netherlands Interconnector Stage 3	520	31/10/10	BritNed Development Ltd	HVDC Link	Grain 400kV	17	Yes
Pembroke 1 Stage 1	800	01/04/08	RWE Npower plc	CCGT	Pembroke 400kV	13	No
Rhigos	299	31/10/11	Nuon UK Projects (SR03) Ltd	Wind	Rhigos 400kV	15	No

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Connection Point	Tariff Zone	Consents
Shira	52	31/12/12	Shira Wind Ltd	Wind	Shira 33kV	5	No
Staythorpe Stage 1	425	01/01/09	RWE Npower plc	CCGT	Staythorpe 400kV	13	Yes
Staythorpe Stage 2	1275	31/10/09	RWE Npower plc	CCGT	Staythorpe 400kV	13	Yes
Staythorpe Stage 3	-	-	-	-	-	-	-
Toddleburn	36	11/08/09	I & H Brown Toddleburn Ltd	Wind	Toddleburn	7	No
West Burton B Stage 1	435	30/06/09	West Burton Ltd	CCGT	West Burton 400kV	13	No
West Burton B Stage 2	435	31/10/10	West Burton Ltd	CCGT	West Burton 400kV	13	No
West Burton B Stage 3	435	15/12/10	West Burton Ltd	CCGT	West Burton 400kV	13	No
TOTAL	7223.75	MW	CHANGE	-242.55	MW		

Notes:

1. Construction work will begin on the Netherlands Interconnector in summer 2007.
2. The above projects were reported previously as follows:
 - Balunton, 150MW in 2010 (withdrawn)
 - Cruach Mor, 90MW in 2012 (withdrawn)
 - Dunlaw Extension, 32.3MW in 2008
 - Edinbane, 56MW in 2008
 - Greater Gabbard, 500MW in 2008
 - Heysham Offshore Wind Farm, 140MW in 2006
 - Pembroke 1 Stage 1, 800MW in 2007
 - Rhigos, 299MW in 2009
 - Shira, 75MW in 2012
 - Staythorpe Stage 1, 425MW in 2008
 - Staythorpe Stage 2, 425MW in 2010
 - Staythorpe Stage 3, 850MW in 2012
 - Toddleburn, 36MW in 2008
 - West Burton B: Stage 1 435MW in 2010, Stage 2 870MW in 2011

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
Akron Wind, Caithness	20	31/12/09	SSE Energy Ltd	Wind	Dounreay 33kV	1	No
Fairburn	42	31/12/09	SSE Generation Ltd	Wind	Lairg 33kV	1	No
Lairg - Achany	62	31/08/09	SSE Generation Ltd	Wind	Orrin 33kV	1	No
TOTAL	124	MW	CHANGE	0.0	MW		

Notes:

- The above projects were reported previously as follows:
 - Akron, 20MW in 2008
 - Fairburn, 42MW in 2008
 - Lairg, 62MW in 2008

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
Dinorwig	1644	01/04/07	First Hydro Company	Pumped Storage	Dinorwig 400kV	12
Littlebrook	1245	01/09/06	RWE Npower plc	Oil + AGT	Littlebrook 400kV	17
Sizewell B	1200	01/04/07	British Energy Generation Ltd	Nuclear PWR	Sizewell 400kV	14
Tilbury B	1121	01/06/07	RWE Npower plc	Medium Unit Coal + AGT	Tilbury 275kV	17
TOTAL	5210	MW	CHANGE	613	MW	

Notes:

- The above stations were previously reported as follows:
 - Dinorwig, 1200MW in 2007 rising to 1644MW in 2008
 - Littlebrook, 1105MW
 - Sizewell B, 1190MW
 - Tilbury B, 1102MW

2.6 New 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
Blyth	1600	RWE Npower plc	Coal	Blyth 400kV
TOTAL	1600	MW		

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)	78031	83111	88122	95833	100655	102748	104006
Consents (C)	78031	79202	81644	81984	82090	82090	82098
Existing or Under Construction (E,UC)	78031	79062	80762	81102	81102	81102	81102
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 includes Langage Stage 1 CCGT and the following wind farms: Dalwinton, 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)	26.9	32.8	38.6	48.3	53.9	55.2	55.7
Consents (C)	26.9	26.5	28.4	26.9	25.5	24.0	22.9
Existing or Under Construction (E,UC)	26.9	26.3	27.0	25.5	24.0	22.5	21.4

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.

Port Ann (2006)

Replace two existing 20MVA transformers with two new 30MVA units at Port Ann GSP by 03/11/06.

Taynuilt (2006)

Replace two transformers at Taynuilt GSP by 31/12/06.

Charleston (2007)

Replace two existing 30MVA transformers with two new 90MVA units at Charleston GSP by 31/07/07.

Bushbury (2008)

Replace two grid supply transformers by 31/10/2008.

Boat of Garten (2009)

Replace two existing transformers at Boat of Garten 132kV substation with two new 90MVA units by 01/08/09.

Hurst (2008)

Install a 132kV GIS circuit breaker into the existing 2405 breaker area. Relocate the existing 2405 circuit breaker into the SGT2 circuit. Completion Date is 31st October 2008.

Inverness (2008)

Install an additional 90MVA transformer at Inverness GSP by 01/09/08.

Thurcroft (2009)

Install a fourth SGT by 31/10/09.

West Boldon (2009)

Install a third SGT by 31/10/09.

Overhead Line Works (2010)

Reconductor the Cottam-Keadby 400kV circuits with 2x620mm² GZTCSR conductor.

Reactive Compensation (2010)

Install the following reactive compensation equipment:

- Install the 1st 225MVAR MSC at High Marnham 400kV Substation.
- Install the 2nd 225MVAR MSC at Staythorpe 400kV Substation.

South Manchester (2010)

Install a new 240MVA, 400/132kV, grid supply transformer (SGT5) by 31/10/10.

Brine Field (2011)

Construct a new 6 bay 400kV GIS substation at Brine Field comprising 2 feeder bays, 3 skeleton generator bays and 1 bus coupler bay, with space provision for an additional skeleton section bay. Turn in the ZZA Lackenby to Norton 400kV circuit at Tower ZZA228 to form Lackenby-Brine Field and Brine Field-Norton 400kV circuits.

Reconductor the Lackenby-Norton 400kV ZZA circuit with GZTACSR conductor from the new Brine Field 400kV substation point of connection to Norton 400kV substation. Carry out replacement and reinforcement of tower infrastructure as found necessary from line surveys.

Overhead Line Works (2011)

Carry out the following overhead line works:

- Hotwire the Grendon-Sundon 400kV double circuit to achieve operation at 90°C
- Reconductor the High Marnham-Ratcliffe 400kV circuit with GZTACSR conductor.
- Reconductor the Hartlepool-Saltholme and Saltholme-Norton 275kV circuits with 2 x 570mm² conductor for operation at 75°C
- Reconductor the L2 section of the Macclesfield-Stocksbridge 400kV circuit with 2 x 570mm² conductor for operation at 75°C
- Reconductor the L12 section of the Drax-Eggborough 400kV no. 2 circuit with 2 x 850mm² conductor for operation at 90°C
- Reconductor the Cellarhead-Macclesfield 400kV circuit with 2 x 620mm² GZTACSR conductor

Rochdale (2011)

Install an additional 400/275kV interbus transformer at Rochdale on the Eggborough-Rochdale 400kV circuit.

Underground Cable Works (2011)

Double the 0.25km cable section of the Eggborough-Rochdale 400kV circuit.

West Burton (2011)

Install a 2750MVA Quadrature Booster at West Burton 400kV Substation.

Grendon (2012)

Install a new (5th) 400/132kV SGT by 31st October 2012.

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