

2008 GB Seven Year Statement Update

January 2009

INTRODUCTION

We are pleased to present the January 2009 Update to our 2008 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 2008 GB Seven Year Statement and reports on changes notified to us up to 1st January 2009.

1. 'GB SYS BACKGROUND' SUMMARY

	2008 GB SYS	May 2008 Update	August 2008 Update	October 2008 Update	January 2009 Update
Total Generation Capacity by 2014/15 (GW)	109.6	107.8	107.8	107.8	107.9
Total CCGT Capacity by 2014/15 (GW)	39.7	38.5	38.5	38.6	38.7
Unavailable Generating Units by 2014/15 (GW)	2.9	2.9	2.9	2.9	2.9
Plant Margin – 2008/09 (%)	28.6	28.0	28.1	28.1	28.0
Plant Margin – 2014/15 (%)	64.3	61.6	61.7	60.7	60.8

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, data in bold italics indicates differences between this update and the previously published contracted position. 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 were converted into GB Offers and Bilateral Agreements under Standard Condition C18 of the Electricity Transmission Licence. The requirements of C18 have now been met and all the relevant Bilateral Agreements are now in place.

2.2 Transmission Networks Quarterly Connections Update

The Transmission Networks Quarterly Connections Update is a new document produced by NGET which provides information on the status of generation agreements. The document is intended to complement the Seven Year Statement updates, and can be viewed on the following web page.

http://www.nationalgrid.com/uk/Electricity/GettingConnected/gb_agreements/

2.3 Planned Transmission Contracted Generation up to 2014/15

This section gives details of future generation projects relevant to this update. The Changes reported are changes relative to the previously reported contracted position, and include:

1. Glendoe Hydro have delayed the remaining 48.5MW of their TEC to October 2013.
2. Akron Wind, Caithness has been withdrawn.
3. Aultmore wind farm have delayed their completion date to October 2014.
4. The completion date for Ballindalloch Muir wind farm is December 2011.
5. Berry Burn wind farm have delayed their completion date to October 2013.
6. Black Craig 40MW wind farm have delayed their completion date to October 2013.
7. Camster wind farm have delayed their completion date to October 2014.
8. The completion date for Calliachar wind farm is October 2014.
9. Clashindarroch wind farm have delayed their completion date to October 2014.
10. Dunbeath wind farm have delayed their completion date to October 2014.
11. Gordonbush wind farm is under construction.
12. Mid Hill wind farm have delayed their completion date to October 2013.
13. Montreathmont Moor wind farm have delayed their completion date to October 2014.
14. Shira wind farm have delayed their completion date to September 2013.
15. Stacain wind farm have delayed their completion date to October 2013.
16. Strathy North & South wind farm have delayed their completion date to October 2013.
17. Tomatin wind farm have delayed their completion date to October 2013.
18. Arecleoch wind farm have delayed their completion to 2010.
19. Clyde wind farm is now under construction with completion deferred to 2010.
20. Drone Hill wind farm has received Section 36 Consent.
21. Earlishaugh wind farm have delayed their completion to 2011.
22. Fallago wind farm have delayed their completion to 2011.
23. Greenock wind farm has been withdrawn.
24. Harestanes wind farm have delayed their completion to 2011.
25. Limmer Hill wind farm has been withdrawn.
26. Marks Hill wind farm have delayed their completion to 2010.
27. Toddleburn wind farm is now under construction.
28. Tormywheel wind farm have delayed their completion to 2010.
29. E.ON Climate & Renewables UK Operations Ltd have signed a contract for 150MW of new biomass generation embedded within the WPD South West Network at Bristol Docks (Portbury), with a completion date of 01/04/12.
30. BritNed Development Ltd have reduced the TEC of Stage 3 of the Netherlands HVDC Interconnector from 520MW to 400MW.
31. Greater Gabbard offshore wind farm is now under construction.
32. Lincs offshore wind farm has received Section 36 Consent.
33. Pen Y Comoedd wind farm (formerly Rhigos) have delayed their completion date to 31/10/12, and have changed their ownership to Pen Y Comoedd Wind Farm Ltd.

Further details are given in the table below.

Station Name	Capacity (MW)		Completion Date		Consents Status	Under Construction Status	Company	Plant Type	Licensee	Agreement Type
	Previous	New	Previous	New						
Glendoe Hydro (stage 2)	48.5	48.5	2012	2013	Yes	Yes	SSE Generation Ltd	Hydro	SHETL	BCA
Akron Wind, Caithness	20	-	2009	-	No	No	SSE Generation Ltd	Onshore Wind	SHETL	BELLA
Aultmore	60	60	2013	2014	No	No	AMEC Wind Energy Ltd	Onshore Wind	SHETL	BCA
Ballindalloch Muir Wind, Balfon	20.8	20.8	2009	2011	No	No	Ballindalloch Muir Wind Farm	Onshore Wind	SHETL	BELLA
Berry Burn	82.5	82.5	2012	2013	No	No	Catamount Energy Ltd	Onshore Wind	SHETL	BELLA
Black Craig 40MW Wind Farm, Dunoon	40	40	2012	2013	No	No	Argyll Wind Farms	Onshore Wind	SHETL	BELLA
Calliachar Wind Farm, Aberfeldy	62.1	62.1	2013	2014	No	No	I & H Brown Ltd	Onshore Wind	SHETL	BCA
Camster	62.5	62.5	2013	2014	No	No	Powergen Renewables Ltd	Onshore Wind	SHETL	BELLA
Clashindarroch Wind, Huntly	112.7	112.7	2013	2014	No	No	AMEC Wind Energy Ltd	Onshore Wind	SHETL	BEGA
Dunbeath	55	55	2013	2014	No	No	Dunbeath Wind Energy Ltd	Onshore Wind	SHETL	BELLA
Gordonbush	70	70	2009	2009	Yes	Yes	SSE Generation Ltd	Onshore Wind	SHETL	BCA
Mid Hill Wind, Stonehaven	75	75	2012	2013	No	No	Mid Hill Wind Ltd	Onshore Wind	SHETL	BELLA

Station Name	Capacity (MW)		Completion Date		Consents Status	Under Construction Status	Company	Plant Type	Licensee	Agreement Type
	Previous	New	Previous	New						
Montreathmont Moor Wind, Angus	40	40	2013	2014	No	No	SHEPD Ltd	Onshore Wind	SHETL	BELLA
Shira	52	52	2012	2013	No	No	Shira Wind Limited	Onshore Wind	SHETL	BCA
Stacain Wind Farm, Sron Mor, Inveraray	42	42	2012	2013	No	No	Wind Prospect Ltd	Onshore Wind	SHETL	BCA
Strathy North & South Wind	226	226	2012	2013	No	No	SSE Generation Ltd	Onshore Wind	SHETL	BCA
Tomatin Wind Farm	30	30	2012	2013	No	No	Eurus Energy UK Ltd	Onshore Wind	SHETL	BELLA
Arecleoch	150	150	2009	2010	Yes	No	CRE Energy Ltd	Onshore Wind	SPT	BCA
Clyde	519	519	2009	2010	Yes	Yes	Airtricity Developments (Scotland) Ltd	Onshore Wind	SPT	BCA
Drone Hill	37.8	37.8	2010	2010	Yes	No	PM Renewables Ltd	Onshore Wind	SHETL	BELLA
Earlshaugh	108	108	2010	2011	No	No	Wind Energy (Earlshaugh) Ltd	Onshore Wind	SPT	BCA
Fallago	144	144	2009	2011	No	No	FLR 2003 Ltd	Onshore Wind	SPT	BCA
Greenock	-	-	-	-	No	No	Greenock Wind Farm (Scotland) Ltd	Onshore Wind	SPT	BELLA
Harestanes	140	140	2010	2011	Yes	No	CRE Energy Ltd	Onshore Wind	SPT	BCA

2.4 Existing Transmission Contracted Generation

The following table lists existing stations that are relevant to this update. Changes to the contracted position include:

1. The TEC at Rocksavage will increase from 748MW to 810MW on 01/04/09. The CEC will increase to 830MW.
2. The TEC at Wilton will increase from 50MW to 60MW from 01/04/09 onwards.
3. The Oldbury Nuclear Magnox station has been granted a life extension until 31/12/10.

Station Name	Capacity (MW)		Company	Plant Type	Licensee	Agreement Type
	Previous	New				
Rocksavage	748	810	Rocksavage Power Company Ltd	CCGT	NGET	BCA
Wilton	50	60	Sembcorp Utilities	CCGT	NGET	BCA
TOTAL	798	870	MW			

2.5 Transmission Contracted Generation beyond 2014/15

The following table lists generation projects with commissioning dates beyond 2014/15. Changes to the contracted position include:

1. Hill of Fare Wind Farm has been withdrawn.
2. Lochelbank Wind Farm has been withdrawn.
3. Meikle Carewe Wind Farm has been withdrawn.
4. Pentland Road wind farm have changed ownership from Farm Energy Ltd to Pentland Road Windfarm Ltd.
5. Huntspill Power Company Ltd have signed a contract for a new connection of 2 x 425MW of CCGT capacity and 2 x 50MW of OCGT capacity, with a TEC and CEC of 950MW at a new 400kV substation at Huntspill. The completion date for the works is 31 October 2023.
6. RWE Npower plc have signed a contract to connect a total of 3600MW of new nuclear generation at Wylfa in three stages of 1200MW, with completion dates of 31 October 2020, 31 October 2021 and 31 October 2022.

The following table gives further details.

Station Name	Capacity (MW)	Company	Plant Type	Licensee	Completion Date
Hill of Fare Wind Farm, Banchory	-	Infinenergy Ltd	Onshore Wind	SHETL	-
Lochelbank Wind Farm, Bridge of Earn, Perthshire	-	Lochelbank Wind Farm Ltd	Onshore Wind	SHETL	-
Meikle Carewe Wind Farm, Stonehaven	-	Renewable Energy Systems UK Ltd	Onshore Wind	SHETL	-
Pentland Road	13	Pentland Road Windfarm Ltd	Onshore Wind	SHETL	-
Huntspill	950	Huntspill Power Company Ltd	CCGT / OCGT	NGET	2023
Wylfa C	1200	RWE Npower plc	Nuclear AP1000	NGET	2020
Wylfa C	1200	RWE Npower plc	Nuclear AP1000	NGET	2021
Wylfa C	1200	RWE Npower plc	Nuclear AP1000	NGET	2022
TOTAL	4563	MW			

3. CAPACITY TOTALS, PEAK DEMANDS AND PLANT MARGINS

3.1 Generation Capacities

This table gives information on capacity totals for all directly-connected and Large Power Stations, and include the capacity and background changes reported in Section 2. 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)						
	08/09	09/10	10/11	11/12	12/13	13/14	14/15
GB SYS background (SYS)	79459	83544	90916	95562	98801	102510	107878
Consents (C)	79459	83524	88724	89950	91487	92006	92045
Existing or Under Construction (E,UC)	79459	83434	87346	86325	86325	86374	86381
Winter Peak Demand	62100	63000	63700	65400	65900	66600	67100

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 with Section 36 and/or 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 importing TEC values for the Moyle Interconnector (80MW) or the East-West Interconnectors (875MW from 2011/12 onwards), as the interconnectors are assumed to be exporting to Northern Ireland and the Republic of 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) and the export to the Republic of Ireland (875MW from 2011/12 onwards).
7. Plant contracted for 2008/09 and under construction includes the following: Immingham Stage 2, Langage, Marchwood, Aikengall, Whitelee Stage 2, Glendoe Stage 1, An Suidhe, Ardkinglas and Millennium Stage 2.
8. Projects assumed to be under construction in 2008/09 (for connection beyond 2008/09) include Staythorpe Stages 1, 2 and 3, Netherlands Interconnector Stages 1, 2 and 3, Grain Stages 2 & 3, Severn Power Stages 1 & 2, Greater Gabbard, Thanet, West Burton B Stages 1, 2 and 3, Clyde, Crystal Rig 2, Dun Law extension, Longpark, Toddleburn, Whitelee Stage 3, Beinn an Tuirc 2, Edinbane, Gordonbush, Kilbraur Stage 2, Millenium Stage 3, Tullo, Glendoe Stage 2 and Fasnakyle Hydro Extension.

3.2 Plant Margins

The following projected margins are based on the capacity totals for the three generation backgrounds and the customer-based demand forecasts given in section 3.1 above.

Generation Background	Plant Margin (%)						
	08/09	09/10	10/11	11/12	12/13	13/14	14/15
GB SYS background (SYS)	28.0	32.6	42.7	46.1	49.9	53.9	60.8
Consents (C)	28.0	32.6	39.3	37.5	38.8	38.1	37.2
Existing or Under Construction (E,UC)	28.0	32.4	37.1	32.0	31.0	29.7	28.7

4. TRANSMISSION SYSTEM

This section reports on significant changes to the planned transmission system, or revisions to construction programmes. Table 6.2 of the main statement gives further details of contracted transmission schemes.

Overhead Line Works (by 2013)

The Beauy-Denny overhead line construction scheme was reported in the main 2008 GB SYS with a planned completion date in 2012. The completion date for this project is now planned for October 2013. Further details of the scheme can be found in the main 2008 GB SYS.

Huntspill (by 2023)

Construct a new 7-bay, 400kV, double-busbar AIS substation at Huntspill, with four feeder bays, one bus coupler bay and two skeletal generator bays. Turn both circuits of the existing Hinkley Point-Melksham 400kV double-circuit line into the new substation.

Walham-Feckenham (by 2023)

Hot-wire the 68km L2 Walham-Feckenham overhead line circuit to 90°C operation (currently 2x500mm² AAAC conductor at 75°C).

Cowley-East Claydon (by 2023)

Hot-wire the 36km L6 Cowley-East Claydon overhead line circuit to 65°C operation (currently 4x400mm² ACSR conductor at 50°C).

Melksham-Minety-Feckenham (by 2023)

Reconductor the Minety-Feckenham overhead line circuit with GAP-type conductor. Reconductor the Melksham-Minety double-circuit overhead line circuit with GAP-type conductor.

Hinkley Point-Melksham (by 2023)

Reconductor the Hinkley Point-Melksham double-circuit overhead line with GAP-type conductor.

Hinkley Point-Seabank (by 2023)

Reconductor the existing overhead line section of the Hinkley Point-Seabank double-circuit with GAP-type conductor (L2 towers) and install 2x850mm² AAAC at 90°C on the new build section of the route (L12 towers).

Wylfa (by 2020)

Establish a new 400kV double-busbar GIS substation at Wylfa, comprising a bus coupler bay, three feeder bays, 2 SGT bays, 2 section switches and a skeletal generator bay. Reroute the HV SGT 1 and SGT3 connections from the Wylfa AIS 400kV substation into the new Wylfa GIS 400kV substation.

Pentir (by 2020)

Extend the 400kV Main and Reserve busbars to allow installation of the feeder bay for the 4th Wylfa circuit. Install a new 400kV 2000MVA 2% series reactor. Install 2 feeder bays for the 3rd and 4th Pentir-Deeside 400kV circuits.

Deeside (by 2020)

Install 2 new feeder bays for the 3rd and 4th Pentir-Deeside 400kV circuits.

Legacy (by 2020)

Install 2 new feeder bays for the new Trawsfynydd-Legacy 400kV double circuit. Install 2 new feeder bays for the new Legacy-Cellarhead 400kV double circuit. Install a new 400kV bus coupler between Main and Reserve busbar 1.

Cellarhead (by 2020)

Install 2 new feeder bays for the new Cellarhead-Legacy 400kV double circuit. Install a new 400kV bus coupler in Main and Reserve bar 2.

Transmission Works (by 2020)

Establish the 4th circuit between Wylfa and Pentir, connecting to the new Wylfa 400kV GIS substation.

Reroute the Trawsfynydd legs of the Deeside-Legacy-Trawsfynydd 400kV double circuit from the Treuddyn tee point into Legacy and reconductor the circuits with 2x620mm² GAP conductor.

Establish a new (approximately 80km) 400kV double circuit between Legacy and Cellarhead.

Establish a new 400kV double circuit between Pentir and Deeside (approx 80km).

Reconductor the Legacy-Ironbridge and the Legacy-Shrewsbury-Ironbridge 400kV circuits with 2x620mm² GAP conductor.

Reconductor the Cellarhead-Drakelow 400kV circuit with 2x620mm² GAP conductor.

Reconductor the Drakelow-Hams Hall 400kV circuit with 2x620mm² GAP conductor.

Hotwire the Pentir-Deeside circuit from the Gwynt-y-Môr tee point to Deeside for operation at 75°C

Install reactive compensation plant at following sites;

- 0-270MVAR SVC at Drakelow 400kV substation.
- 225MVAR MSCDN at Legacy 400kV substation
- 225MVAR MSCDN at Trawsfynydd 400kV substation.
- 225MVAR MSCDN at Ironbridge 400kV substation.
- 225MVAR MSCDN at Cellarhead 400kV substation.
- 225MVAR MSCDN at Feckenham 400kV substation.

Establish a new 400kV circuit from Pentir to Trawsfynydd. Increase the thermal capability of the existing Pentir-Trawsfynydd 400kV circuit by doubling up the cable sections of the circuit between Pentir and tower 4ZC157, between Trawsfynydd and tower 4ZC5 and the 6km cable section that crosses the Glaslyn Estuary. Establish a new 400kV circuit from Wylfa – Pentir. Connect the new 400kV circuit at Pentir into the bay currently occupied by the Deeside 1 circuit. Transpose the Deeside 1 circuit onto the Bus Coupler 1 circuit with the Bus Coupler being replanted. Install a circuit breaker in the reserve bus-section bay at Pentir 400kV substation.

Wylfa 400kV substation (by 2021)

Extend the Main and Reserve busbars and install a section switch in Main and Reserve busbar 2. Install a skeletal generator bay. Install a new feeder bay at Wylfa GIS 400kV

substation and 2 new SGT bays. Reroute the HV SGT 2 and SGT4 connections from the Wylfa AIS 400kV substation into the new GIS 400kV substation. Reroute the Wylfa-Pentir 1 and 2 circuits from the Wylfa AIS 400kV substation to the new Wylfa GIS 400kV substation.

Wylfa GIS 400kV substation (by 2022)

Extend Main and Reserve busbar 3 and install a section switch in Main bar 3 and Reserve bar 3 at the new Wylfa GIS 400kV substation. Install a bus coupler to connect Main bar 4 and Reserve bar 4 at Wylfa GIS 400kV substation. Install a skeletal generator bay

National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

Tel: 01926 656391
Fax: 01926 653042