

2008 GB Seven Year Statement Update

May 2008

INTRODUCTION

We are pleased to present the May 2008 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 first Update of our 2008 GB Seven Year Statement and reports on changes notified to us up to 31st May 2008.

1. 'GB SYS BACKGROUND' SUMMARY

	2008 GB SYS	May Update
Total Generation Capacity by 2014/15 (GW)	109.6	107.8
Total CCGT Capacity by 2014/15 (GW)	39.7	38.5
Unavailable Generating Units by 2014/15 (GW)	2.9	2.9
Plant Margin – 2008/09 (%)	28.6	28.0
Plant Margin – 2014/15 (%)	64.3	61.6

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 New Transmission Contracted Generation up to 2014/15

This section gives details of new generation projects that have recently signed contracts.

1. Barking Power Ltd have signed a contract to connect a new 470MW CCGT power station (Barking C) at Barking 400kV substation by 31/10/13.
2. Bridestones Developments Ltd have signed a contract to connect a two-stage CCGT power station at Carrington substation. Stage 1 has a capacity of 430MW and a completion date of 31/10/11. Stage 2 also has a capacity of 430MW and a completion date of 31/10/12. The new power station will be called Partington.

Further details are given in the table below.

Station Name	Capacity (MW)	Completion Date	Company	Plant Type	Licensee	Consents	Under Construction	Type of Agreement
Barking C	470	2013	Barking Power Ltd	CCGT	NGET	No	No	BCA
Partington Stage 1	430	2011	Bridestones Developments Ltd	CCGT	NGET	No	No	BCA
Partington Stage 2	430	2012	Bridestones Developments Ltd	CCGT	NGET	No	No	BCA
TOTAL	1330	MW						

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. Beinn an Tuirc 2 wind farm have reduced their TEC from 60MW to 38MW, and brought their completion date forward to 31/05/10 (previously 2012). This project has been granted Section 36 Consent.
2. Fairburn Wind Farm have reduced their TEC from 42MW to 40MW. This project has been granted Section 36 Consent.
3. Gordonbush Wind have reduced their TEC from 87.5MW to 70MW. This project has been granted Section 36 Consent.
4. Griffin Wind Farm have reduced their TEC from 216MW to 204MW. This project has been granted Section 36 Consent.
5. Lairg – Achany have reduced their TEC from 62MW to 50MW. This project has now been granted Section 36 Consent.
6. Pairc (South Lochs) have reduced their TEC from 250MW to 94MW.
7. The completion date for Tullo wind farm is 30/04/09.
8. Beatrice Pilot Wind Farm (10MW in 2012) is treated as embedded.
9. Aikengall wind farm has Section 36 Consent and is under construction.
10. Brockloch Rig wind farm was previously referred to as Windy Standard 2.
11. Dun Law Extension wind farm is under construction.
12. Harestanes wind farm have reduced their TEC from 213MW to 140MW. The CEC is now 163.3MW
13. Harrows Law wind farm have reduced their TEC from 140MW to 55MW.
14. Limmer Hill Wind Farm have amended their completion date to 12/05/12 (previously 2010), with a TEC of 42MW (previously reported as 80MW).
15. Waterhead Moor have reduced their TEC to 72.5MW (previously 120MW).
16. Heysham offshore wind farm have deferred their completion date to 02/04/10 (previously 2008).
17. The completion date for Lincs offshore wind farm has been deferred from 2009 to 2010.
18. London Array wind farm have varied their connection agreement, to connect 630MW of generation by 01/04/11, and a further 370MW by 01/04/14.
19. Baglan Bay 2 was previously referred to as Abernedd Stage 1.
20. Drakelow D CCGT has been granted Section 36 and Section 14 consents.
21. The completion date of Pembroke 1 Stage 1 (RWE Npower plc) has been deferred to 01/04/10. The completion date of Pembroke 1 Stage 2 (RWE Npower plc) has been deferred to 01/10/10.
22. RWE Npower have terminated their contract for Little Barford B CCGT (475MW in 2012).
23. Milford Power UK Ltd have terminated their contract for Pembroke 2 Stage 1 (1200MW in 2013) and Pembroke 2 Stage 2 CCGTs (800MW in 2014).

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						
Beinn an Tuirc 2	60	38	2012	2010	Yes	No	CRE Energy Ltd	Onshore Wind	SHETL	BEGA
Fairburn Wind Farm	42	40	2009	2009	Yes	No	SSE Generation Ltd	Onshore Wind	SHETL	BELLA
Gordonbush Wind	87.5	70	2009	2009	Yes	No	SSE Generation Ltd	Onshore Wind	SHETL	BCA
Griffin Wind Farm, Aberfeldy	216	204	2010	2010	Yes	No	Green Power (Griffin) Ltd	Onshore Wind	SHETL	BCA
Lairg - Achany	62	50	2009	2009	Yes	No	SSE Generation Ltd	Onshore Wind	SHETL	BELLA
Pairc (South Lochs) Wind, Lewis	250	94	2013	2013	No	No	SSE Generation Ltd	Onshore Wind	SHETL	BCA
Tullo Wind Farm, Laurencekirk	13.5	13.5	2008	2009	Yes	Yes	Tullo Wind Farm Ltd	Onshore Wind	SHETL	BELLA
Beatrice Pilot	10	-	2012	-	-	-	-	-	SHETL	-
Aikengall	48	48	2008	2008	Yes	Yes	Community Windpower Ltd	Onshore Wind	SPT	BCA
Brockloch Rig	60	60	2012	2012	Yes	No	Brockloch Rig Wind Farm Ltd	Onshore Wind	SPT	BCA
Dun Law Extension	29.75	29.75	2009	2009	Yes	Yes	CRE Energy Ltd	Onshore Wind	SPT	BCA
Harestanes	213	140	2010	2010	Yes	No	CRE Energy Ltd	Onshore Wind	SPT	BCA

Station Name	Capacity (MW)		Completion Date		Consents Status	Under Construction Status	Company	Plant Type	Licensee	Agreement Type
	Previous	New	Previous	New						
Harrows Law	140	55	2011	2011	No	No	SSE Generation Ltd	Onshore Wind	SPT	BCA
Limmer Hill Wind Farm	80	42	2010	2012	No	No	Limmer Hill Wind Energy Ltd	Onshore Wind	SPT	BCA
Waterhead Moor	120	72.5	2011	2011	No	No	SSE Generation Ltd	Onshore Wind	SPT	BCA
Heysham Offshore Wind Farm	140	140	2008	2010	Yes	No	Heysham Offshore Wind Ltd	Offshore Wind	NGET	BCA
Lincs Offshore Wind Farm	250	250	2009	2010	No	No	Centrica (Lincs) Ltd	Offshore Wind	NGET	BCA
London Array Stage 1	200	630	2010	2011	No	No	London Array Ltd	Offshore Wind	NGET	BCA
London Array Stage 2	800	370	2010	2014	No	No	London Array Ltd	Offshore Wind	NGET	BCA
Baglan Bay 2 Stage 1	435	435	2014	2014	No	No	Abernedd Power Company	CCGT	NGET	BCA
Drakelow D	1230	1230	2009	2009	Yes	No	EON UK plc	CCGT	NGET	BCA
Pembroke 1 Stage 1	800	800	2009	2010	No	No	RWE Npower plc	CCGT	NGET	BCA
Pembroke 1 Stage 2	1200	1200	2009	2010	No	No	RWE Npower plc	CCGT	NGET	BCA
Little Barford B	475	-	2012	-	-	-	-	-	NGET	-

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. Kinlochleven Hydro TEC is 20MW (was 30MW in main SYS).
2. Hadyard Hill TEC reduction to 117MW as of 01/04/08 (was 130MW).
3. Cockenzie power station have reduced their TEC from 1152MW to 1102MW, as of 01/04/08.
4. Hunterston power station have reduced their TEC from 1210MW to 1089MW, as of 01/04/08.
5. Brigg power station have reduced their TEC from 268MW to 260MW, as of 01/04/08.
6. Deeside power station have increased their TEC from 495MW to 505MW as of 01/04/08.
7. The station TEC at Tilbury is 1131MW as of 01/09/07 (previously reported as 1121MW).

The following table gives further details.

Station Name	Capacity (MW)		Company	Plant Type	Licensee	Agreement Type
	Previous	New				
Kinlochleven	30	20	Alcan Aluminium UK Ltd	Hydro	SPT	BELLA
Hadyard Hill	130	117	SSE Generation Ltd	Onshore Wind	SPT	BCA
Cockenzie	1152	1102	ScottishPower Generation Ltd	Medium Unit Coal	SPT	BCA
Hunterston	1210	1089	British Energy Generation Ltd	Nuclear AGR	SPT	BCA
Brigg	268	260	Centrica Brigg Ltd	CCGT	NGET	BEGA
Deeside	495	505	Deeside Power Ltd	CCGT	NGET	BCA
Tilbury	1121	1131	RWE Npower plc	Medium Unit Coal + AGT	NGET	BCA
TOTAL	4406	4224	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. SP Manweb have signed a contract to export 408.4MW of embedded offshore wind generation to the transmission system (Mid-Wales West).
2. Npower Renewables Ltd have signed a contract to connect a new 191MW offshore wind farm (Carnedd Wen).
3. Renewable Energy Systems UK Ltd have signed a contract to connect a new 110MW offshore wind farm (Llanbrynmair South).
4. The above offshore wind farms in (1) to (3) will be connected at Mid-Wales West 132kV substation.
5. Baglan Bay 2 was previously referred to as Abernedd Stage 2.
6. Centrica KL Ltd have signed a contract to connect a new 981MW CCGT power station (Kings Lynn B) at Walpole.
7. RWE Npower have signed an agreement to increase the TEC at Tilbury by 469MW, from 1131MW to 1600MW.

The following table gives further details.

Station Name	Capacity (MW)	Company	Plant Type	Licensee	Completion Date
Mid Wales West	408.4	SP Manweb	Offshore WInd	NGET	2015
Carnedd Wen Wind Farm	191	Npower Renewables Ltd	Offshore WInd	NGET	2015
Llanbrynmair South	110	Renewable Energy Systems UK Ltd	Offshore WInd	NGET	2015
Baglan Bay 2 Stage 2	435	Abernedd Power Company	CCGT	NGET	2016
Kings Lynn B	981	Centrica KL Ltd	CCGT	NGET	2016
Tilbury Stage 2	469	RWE Npower plc	Medium Unit Coal + AGT	NGET	2016
TOTAL	2594.4	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)	79502	85160	91201	96883	98963	102172	107782
Consents (C)	79403	82657	85674	86111	86298	86298	86338
Existing or Under Construction (E,UC)	79403	81649	84144	84574	84674	84674	84681
Winter Peak Demand	62100	63000	63700	65000	65600	66200	66700

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 Interconnector (500MW 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 (500MW 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, 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 1 & 2, Severn Power Stages 1 & 2, West Burton B Stages 1, 2 and 3, Dun Law extension, Whitelee Stage 3, Kilbraur Stage 2, Millennium Stage 3, Tullio, Glendoe Hydro 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	35.2	43.2	49.1	50.9	54.3	61.6
Consents (C)	27.9	31.2	34.5	32.5	31.6	30.4	29.4
Existing or Under Construction (E,UC)	27.9	29.6	32.1	30.1	29.1	27.9	27.0

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.

Carrington (by 2011)

Construct a new three-bay GIS 400kV substation at Carrington, with two feeder bays and one bus coupler bay. Construct a new tower at the Carrington 400kV substation compound. Transfer the Daines-Kearsley overhead line to the existing ZQ010 tower, and turn into the new substation using GIB trunking. Transfer the Carrington-Kearsley overhead line to the new ZQ010 tower.

Overhead Line Works (by 2011)

Reconductor the Carrington-Daines overhead line route (from the new tower at Carrington) with 2x620mm² GZTACSR GAP conductor.

Barking (by 2013)

Construct a new bus coupler bay and skeleton generator bay on section 2 of the existing Barking 400kV GIS substation.

Underground Cable Works (by 2013)

Construct a new 12km, 400kV underground cable route between St. Johns Wood and Hackney. Extend St. Johns Wood and Hackney 400kV substations. Reconfigure the West Ham QBs on the West Ham-Barking 400kV overhead line circuits.

Blyth (by 2014)

Construct a new nine-bay 400kV GIS substation at Blyth, with two feeder bays, three 400/275kV SGT bays, one bus coupler bay, one bus section bay and two generator bays. Connect the new substation to the 400kV system. Install a new 400/275kV transformer at the new 400kV Blyth substation to connect to the existing 275kV Blyth substation.

Overhead Line Works (by 2014)

Reconductor the Harker-Hutton 400kV double circuit with 2x620mm² GAP conductor.

On the Lackenby-Norton 400kV circuit, reconductor the L2 segment between Lackenby and Brine Field substation with 2x570mm² conductor at 90°C and replace circuit cables to match overhead line rating.

Hotwire 2x500mm² segment of the Thornton-Osbaldwick circuit to 90°C.

Hotwire the Hartlepool-Hart Moor 275kV circuit to 75°C.

Reconductor the L2 segment of the Norton-Osbaldwick 400kV double circuit with 2x570mm² conductor at 90°C.

Reconductor the West Boldon-Offerton-Hawthorn Pit circuit with 2x570mm² conductor at 90°C.

Reconductor the Hartlepool-Saltholme-Norton 275kV circuit with 2x570mm² AAAC conductor operating at 90°C.

Reconductor L2 section of Macclesfield-Stocksbridge circuit with 2x570mm² conductor at 75°C.

Reconductor L12 section of Drax-Eggborough 2 circuit with 2x850mm² conductor at 90°C.
Double up the cable section of the Eggborough-Rochdale circuit, and install an additional 400/275kV interbus transformer at Rochdale.

Cottam (by 2014)

Install a 2750MVA Quadrature Booster at Cottam 400kV substation. Turn in West Burton-Grendon 400kV circuit into Cottam to create the West Burton-Cottam and Cottam-Grendon circuit. Install 2x1500MVA reactors at Cottam on the West Burton-Cottam circuit created as a result of the turn-in.

Overhead Line Works (by 2014)

Reconductor the West Burton-Cottam circuit with 2x620mm² GZTACSR GAP conductor.

Reconductor the West Burton-High Marnham circuit with 2x620mm² GZTACSR GAP conductor.

Hotwire the Cottam-Keadby double circuit for a rating of 2210MVA.

Bradwell (by 2014)

Construct a new five-bay 400kV double-busbar AIS substation at Bradwell, with two feeder circuits to Rayleigh Main, two skeletal generation bays and one coupler.

Rayleigh (by 2014)

Extend the Rayleigh Main 400kV double busbar 400kV AIS section 2 bays to facilitate two new Bradwell 400kV feeder bays.

Overhead Line Works (by 2014)

Rebuild the Bradwell-Rayleigh Main route using a new design of tower, new foundations and strung with 2x570mm² AAAC conductor operating at up to 90°C.

Bramford (by 2014)

Install two switchable series reactors on the Bramford-Pelham feeder circuits at Bramford 400kV substation.

Construct a new 16 bay 400kV GIS substation at Bramford, with four Sizewell, two Norwich, one Pelham and one Braintree/Rayleigh Main feeder bays, four SGT bays, two bus section and two bus coupler bays. Connect the new substation via one Pelham, one Braintree/Rayleigh Main and two Bramford circuits tee-ed connections into the existing Sizewell-Bramford 400kV circuits.

Extend the Bramford double busbar 400kV AIS by one coupler bay, converting one existing couple into a section bay, rearranging the feeder circuits to form two Sizewell circuits, one Twinstead Tee/Pelham and one Braintree/Rayleigh Main feeder bay (Twinstead Tee is the point where the current Bramford to Braintree to Rayleigh route diverges from the current Bramford to Pelham route).

Sizewell North (by 2014)

Construct a new 400kV GIS substation at Sizewell North, with four Bramford feeder circuits, four series reactor circuits, four skeletal generation bays, two bus sections and two bus coupler bays. Connect the new substation via two tee-ed connections into the existing

Sizewell-Bramford 400kV circuits. Install two new 400kV 3000MVA reactors proximate to the new Sizewell North 400kV GIS substation site.

Overhead Line Works (by 2014)

Reconductor the Twinstead tee-Pelham overhead line route with 3x700mm² AAAC conductor at 75⁰C. Construct a new double circuit overhead line between the Bramford and the Twinstead Tee point strung with 3x700mm² AAAC conductor at 75⁰C (28km). At Twinstead Tee rearrange the overhead line circuit to form the Bramford-Twinstead Tee-Pelham double circuit and Bramford-Twinstead Tee-Braintree-Rayleigh Main double circuit.

Reconductor the Sizewell-Bramford circuit 1 and 3 overhead line route with 3x700mm² AAAC conductor.

Tilbury (by 2014)

At Tilbury 400kV GIS substation, install 2 bus sections, one bus coupler, and two 400/275kV SGT bays at Tilbury 400kV GIS substation. Install two switchable series reactors on Rayleigh Main and Coryton South feeder circuits at Tilbury 400kV GIS substation.

At Tilbury 400kV GIS substation, install a new bus coupler bay, two new reactor bays, two new 400/275kV SGT bays (removing current tee-ed connections), two new skeletal generation bays, and populate two skeletal section bays within that design.

Install a new 3000MVA 400kV series reactor at Tilbury, by relocating SGT4 to an alternate bay location.

Overhead Line Works (by 2014)

Reconductor the Rayleigh Main-Coryton South-Tilbury overhead line route with 2x620mm² GZTACSR GAP conductor.

Lydd (by 2014)

Construct a new 400kV substation at Lydd. Connect the new substation into the Sellindge-Dungeness-Ninfield 400kV route, forming the following 400kV circuits: Sellindge-Lydd 1 & 2, Lydd-Dungeness 1 & 2, and Lydd-Ninfield 1 & 2.

Rowdown (by 2014)

Install a new 10 bay 400kV GIS double busbar substation at Rowdown consisting of 6 feeder bays, two bus couplers and two bus sections. The work includes decommissioning of two disconnectors at the site.

Overhead Line and Underground Cable Works (by 2014)

Construct a new 400kV double circuit 2x700mm overhead line between the new Lydd substation and the new Rowdown substation (95km). The route includes 4km of cable tunnel.

Reconductor 8km of overhead line between Littlebrook and the Longfield tee on the Littlebrook-Kemsley-Rowdown 400kV 1 & 2 circuits, with 2x500mm² AAAC conductor operating at 75⁰C.

Reconductor the Beddington-Chessington 275kV 1 & 2 circuits with 2x570mm² AAAC conductor operating at 75⁰C. At Beddington, replace 200m of 1200 mm² of XLPE cable with 2500mm² XLPE cable on the Beddington-Chessington 275kV circuits, matching the overhead line rating.

Hinkley Point (by 2014)

Construct a new 18-bay, 400kV GIS double-busbar substation at Hinkley Point, consisting of eight feeder bays, two bus couplers, four bus sections, two skeletal generation bays and two skeletal station transformer bays.

Construct two new 400kV cable interconnectors between the new 400kV GIS substation and the existing 400kV AIS substation (approximately 1km). Decommission two feeder bays at the existing 400kV AIS substation, to be used for the cable interconnector circuits to the new 400kV GIS substation.

Extend the six existing 400kV and 275kV feeder circuits at Hinkley Point to run to the new 400kV GIS substation. Decommission the two Bridgwater feeder bays at Hinkley Point 275kV substation.

Bridgwater (by 2014)

Replace the existing 275kV busbars and switchgear with 400kV equipment. Replace the two existing 275/132kV SGTs with 400/132kV units.

Seabank (by 2014)

Extend the existing 400kV GIS substation at Seabank by a feeder bay at either end of the substation (for the new Hinkley Point-Seabank circuits).

Tockington (by 2014)

Construct a new 400kV two-switch mesh substation near Tockington, where the Seabank overhead line circuits turn in the Melksham-Whitson/Cilfynydd route.

Overhead Line Works (by 2014)

Break into the existing Hinkley Point-Melksham overhead line route near the M5 motorway. Hot-wire the Melksham leg of this route to 90°C operation and tee it into the Hinkley Point-Bridgwater circuit by a 3.5km section of new overhead line.

Uprate the Hinkley Point-Bridgwater 275kV route to 400kV operation, and reconductor from the tee-point to Hinkley Point with 2x500mm² AAAC conductor at 90°C operation.

Construct a new double-circuit overhead line between the Hinkley Point leg of the broken Hinkley Point-Melksham route and Seabank 400kV substation (40km).

Hot-wire both the overhead line circuits on the Tockington-Melksham route to 65°C operation. Reconductor the Seabank leg of the Seabank-Melksham overhead line circuit with 2x850mm² AAAC conductor to operate at a maximum of 75°C.

Fawley (by 2014)

Install two 400kV quadrature boosters at Fawley on the Fawley-Botley Wood and Fawley-Lovedean circuits.

Overhead Line and Underground Cable Works (by 2014)

Reconductor both of the Langage-Abham-Exeter overhead line circuits with 2x500mm² AAAC conductor to operate at a maximum of 75°C.

Reconductor both of the Bramley-Melksham overhead line circuits with GAP conductor.

Reconductor both of the Bramley-West Weybridge overhead line circuits with 2x500mm² AAAC conductor to operate at a maximum of 75°C.

Bank both of the existing 400kV cables in the Cowley-Minety circuit, and install new cables in the 400kV Cowley-Walham circuit.

Transmission Works (by 2016)

Install two 2000MVA switchable series reactors at West Thurrock on the new 400KV Littlebrook-Barking-Tilbury circuits.

Reconductor 65km of 400kV Kemsley-Longfield Tee-Rowdown overhead line sections with a combination of 2x620mm² GZTACSR GAP conductor on L2 and L8 constructed sections and 3x700mm² AAAC on L6 constructed sections.

On the Littlebrook-Hurst 275kV circuits, replace coolers on the existing 950MVA 400/275kV SGTs. Re-conductor the 5km of overhead line circuit elements with 2x570mm² AAAC conductor and replace the 2.5km of cable element of these circuits near Hurst substation with a combination of direct buried and thrust-bored installed 2x2550mm² XLPE cable (2.5km).

Connect a new 15km St Johns Wood-Wimbledon 400kV cable tunnel route via Kensal Green. Extend St John's Wood and Wimbledon substations.

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