nationalgrid

Transmission Networks Connections Update

May 2015

Contents

Foreword

Welcome to the May 2015 Transmission Networks Connections Update. We are publishing this edition to provide an update based on the contracted background effective from 1 April 2015.

The beginning of a new financial year is important for current connected generation as changes to their Transmission Entry Capacity (TEC) figures become effective and this sets the generation transmission annual charges where applicable. In this update there are significant changes in the current connected generation that have been notified to us since the January update, see section 6. Total connected generation has reduced by over 3.5GW since the last update with over 2.5GW being effective from 1 April this year.

Besides this edition we intend to provide two further updates a year, to coincide with our early spring and autumn customer seminars. Please see next page for the forthcoming dates.

Turning to the future contracted generation we are anticipating further changes given the continuing uncertainty for generation developers in relation to consenting, supply chain and financial markets. We also expect the results of the EMR capacity market to directly influence the future connection dates of some projects.

The 2014 Future Energy Scenario "Gone Green" (see link in section 8) requires 26GW of renewable generation to be connected to the transmission network by 2020. There is circa 11GW of renewable generation which has already connected to the transmission network meaning circa 15GW of additional generation is needed to meet this scenario. Currently, over 25GW of additional renewable generation is contracted to connect by 2020, however this is down from over 30GW in our January update.

We expect to continuously review the format and content of this publication and, therefore, we're keen to hear your views. If you'd like to provide feedback then please send an email to the following address: transmissionconnections@nationalgrid.com, or alternatively, contact your Customer Account Manager directly. I hope you find the information contained within this publication of interest and I would like to take this opportunity to wish you all the best for both your current and future projects.
Best regards,

Nicola Paton
Head of Customer Service

1 Introduction

Purpose

The main purpose of this document is to assist existing and prospective users of the National Grid Electricity Transmission System (NETS) in assessing the connection opportunities available. The information contained within relates to the contracted status of future and existing generation as at 1 April 2015. We do not intend to draw any conclusions on the future completion of the generation projects detailed within this document.

Customer seminars

Our customer seminars provide a great opportunity to meet with industry colleagues, find out more about industry developments and discuss issues relating to a variety of topics. They are regularly attended by over 100 customers and stakeholders.

The dates and venues for the next seminars have now been confirmed so please make a note of these in your diary:

Date	Venue	City
1 October 2015	National Grid	Warwick
6 October 2015	Radisson Blu Hotel	Glasgow

The agenda for these seminars will be released nearer the time.

As always, if there are any topics you'd like to see covered please let us know. In the meantime, if you'd like to be added to our contact list for seminars, please contact the email address below:
transmissionconnections@nationalgrid.com

Should you have any questions regarding the forthcoming seminars, please do not hesitate to contact Bridget Kerr, our seminar co-ordinator, on 01926 655892.

Material from previous seminars can be found on our website via the following link: (please scroll to the bottom of the web page)
http://www2.nationalgrid.com/UK/Services/Electricity-connections/

You will also find that our Electricity Ten Year Statement (ETYS) complements this document, illustrating the potential development over time of the NETS by considering a range of future energy scenarios. Information on the ETYS and the Future Energy Scenarios can be found via the following links:
http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/Electricity-Ten-Year-Statement/

http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/Future-Energy-Scenarios/

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Connection timescales

This section provides an indication of the likely connection dates that we would currently expect to offer to connection applications in various geographical locations around the country.

Please note that these are indicative only and are subject to confirmation on a case by case basis. We welcome the opportunity to discuss your connection aspirations ahead of any formal application.

To discuss your project in more detail please contact either your Customer Account Manager or our Electricity Customer Team (Telephone number 01926 654634).

The shaded map shown below may be found in the current version of the ETYS – see chapter 4.9. http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/Electricity-Ten-Year-Statement/

Illustrative connection timescales – Likely connection dates

SHE Transmission
2017–2020
Varies across the network
Lots of embedded
Often Grid Supply Point reinforcements needed

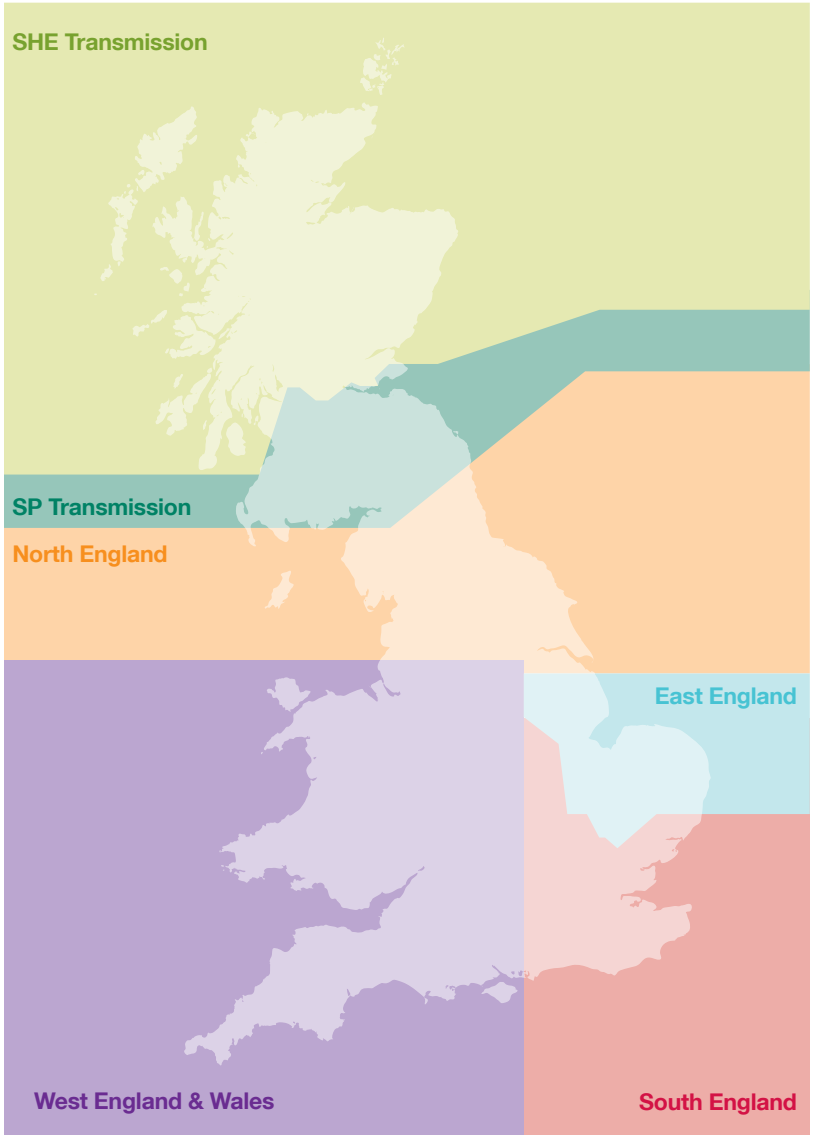
SP Transmission
2015–2020
Varies across the network
Lots of embedded
Often Grid Supply Point reinforcements needed

North England
2016–2020
Less connection applications than further north

East England
Large projects later than **2020**

West England & Wales
2016–2023
Mix of enabling and wider works depending on issues

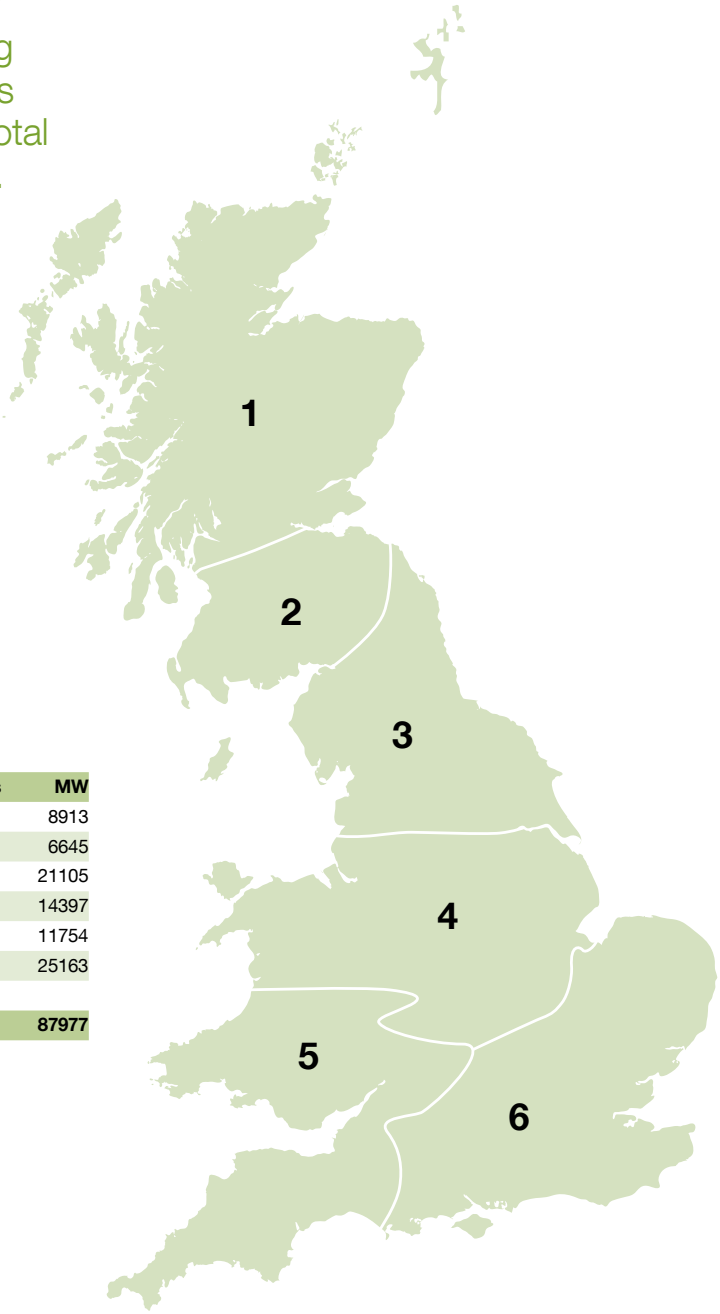
South England
2020 onwards
For generation
2018–2028
For interconnectors



Connections by area

The map below shows the volume of generation contracted to be connected by area. Further project-specific details can be found in this document in Section 5: Connection locations.

Scotland has the largest number of projects in the UK, contributing 57% of the projects, however this only accounts for 17.7% of the total MWs generation due to connect.



Activity areas map

Area	Map Area	No. of Projects	MW
1	Northern Scotland	76	8913
2	Southern Scotland	66	6645
3	Northern England	35	21105
4	Central England & North Wales	20	14397
5	South West England & South Wales	15	11754
6	South East England	36	25163
Totals		**248**	**87977**

3
GB projects by year

3
GB projects by year

This section sets out summary statistics on new generation connections.

Contracted overall position

The data in the table below shows the amount of generation contracted to connect by 2026 within Great Britain, split by renewable generation, non-renewable generation, nuclear generation and interconnectors. This information has been taken from both the TEC Register and the Interconnector Register which can be found via the following link: http://www2.nationalgrid.com/UK/Services/Electricity-connections/Industry-products/TEC-Register/

The figures in the second table are cumulative. Where a figure has been repeated, it shows that there is no new contracted generation within that particular year. A negative (-) value shows where generation has reduced its MW TEC value.

Renewable fuel types: Biomass, Hydro, Tidal, Wave, Wind Onshore, Wind Offshore and Pump Storage.

Sum of contracted generation (MW total per year)

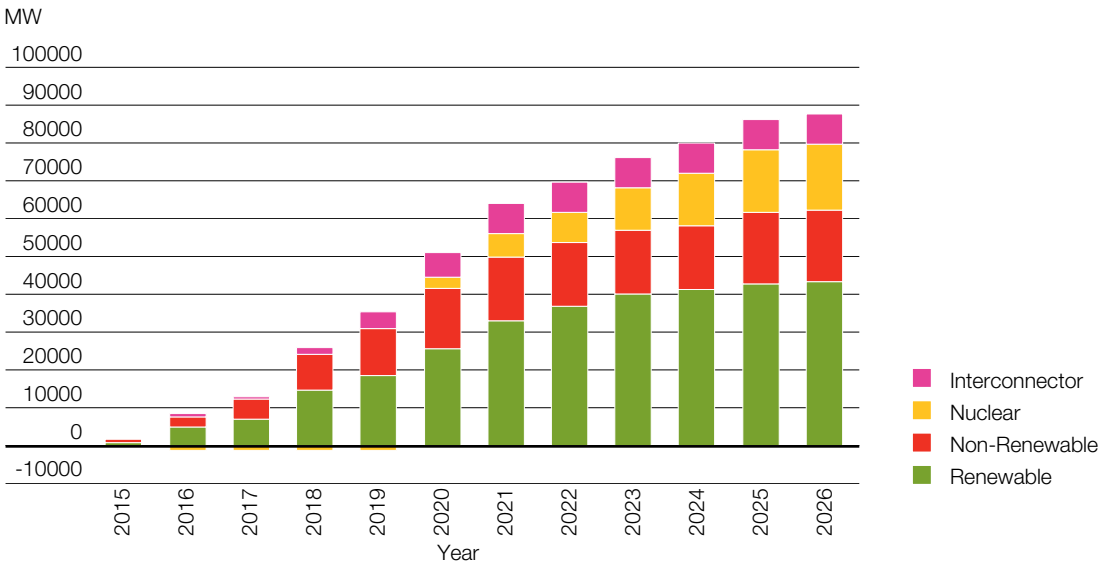
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Renewable	711	4285	2153	7624	3687	7330	7159	3932	3214	1250	1400	600	43343
Non-Renewable	910	1717	2435	4411	3198	3079	1200	0	0	0	2162	0	19112
Nuclear	0	-200	0	0	0	3270	3340	1670	3270	2529	2529	1129	17537
Interconnector	0	1000	-215	1000	2400	2400	1400	0	0	0	0	0	7985
Total	**1621**	**6802**	**4373**	**13035**	**9285**	**16079**	**13099**	**5602**	**6484**	**3779**	**6091**	**1729**	**87977**

Sum of MW increase (cumulative MW)

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Renewable	711	4996	7148	14772	18459	25789	32947	36879	40093	41343	42743	43343
Non-Renewable	910	2627	5062	9473	12671	15750	16950	16950	16950	16950	19112	19112
Nuclear	0	-200	-200	-200	-200	3070	6410	8080	11350	13879	16408	17537
Interconnector	0	1000	785	1785	4185	6585	7985	7985	7985	7985	7985	7985
Total	**1621**	**8423**	**12795**	**25830**	**35115**	**51194**	**64292**	**69894**	**76378**	**80157**	**86248**	**87977**

Note: no new contracted generation after 2026

Contracted future renewable and non-renewable generation



Long-term future GB contracted generation (to 2026)

By plant type

October 2014 Data	Capacity (MW)	Fuel Type	MW
Non-Renewable	37139	Nuclear	17537
		Gas	19112
		CHP	490
Renewable	42853	Biomass	-105
		Tidal	877
		Wave	40
		Wind Offshore	32791
		Wind Onshore	7138
		Pump Storage	2112
Interconnector	7985		7985
Total	**87977**		**87977**

By consents status

	Renewable	Non-Renewable	Nuclear	Interconnector	Total (MW)
Scoping	21985	2288	14397	3400	42070
Awaiting Consents	6893	7952	0	4800	19645
Consents Approved	14294	7516	3340	0	25150
Under Construction/Commissioning	341	910	0	0	1251
Built	-170	446	-200	-215	-139
Total	**43343**	**19112**	**17537**	**7985**	**87977**

The table below shows proposed generation projects that have terminated their contracts since October 2014 and the effective date

Company	Project Name	Fuel Type	MW (TEC)	Termination Date
RWE NPower Renewables Ltd	Stallingborough	Biomass	70.0	03-Nov-2014
Barking Power Ltd	Barking Power Station C	CCGT	470.0	23-Jan-2015
Windy Edge Wind Farm Limited	Windy Edge Wind Farm	Wind Onshore	42.5	30-Jan-2015
SSE Renewables Developments Ltd	Costa Head and Brough Head	Wave	300.0	13-Feb-2015
ScottishPower Renewables Ltd	Marwick Head Wave Farm	Wave	49.5	27-Feb-2015
Vento Ludens Limited	Balnacoil Wind Farm	Wind Onshore	45.0	05-Mar-2015
Wind Energy (Newfield) Ltd	Newfield Wind Farm	Wind Onshore	52.5	09-Mar-2015
Beinn Mhor Power Ltd	Eishken Estate, Isle of Lewis	Wind Onshore	133.0	13-Mar-2015
Twentyshilling Limited	Twentyshilling Hill Wind Farm	Wind Onshore	22.5	20-Mar-2015
ScottishPower Renewables Ltd	Duncansby Tidal Array	Tidal	95.0	24-Mar-2015
RWE Innogy UK Ltd	Allt Duine Wind Farm	Wind Onshore	87.0	31-Mar-2015
GreenPower International	Millenderdale Wind Farm	Wind Onshore	21.0	31-Mar-2015
	Total MW		**1388**	

Nearly 88GW of generation is contracted to connect by 2026. This figure includes 43GW of renewable energy.

3
GB projects by year

Renewable projects status by year

The data in the table below shows the amount of renewable generation contracted to connect to the NETS and its current project status.

The chart displays the current position of total contracted renewable generation up until 2026. It can be seen that the vast majority of this renewable generation is in the Scoping stage (50%) and around 33% is consented.

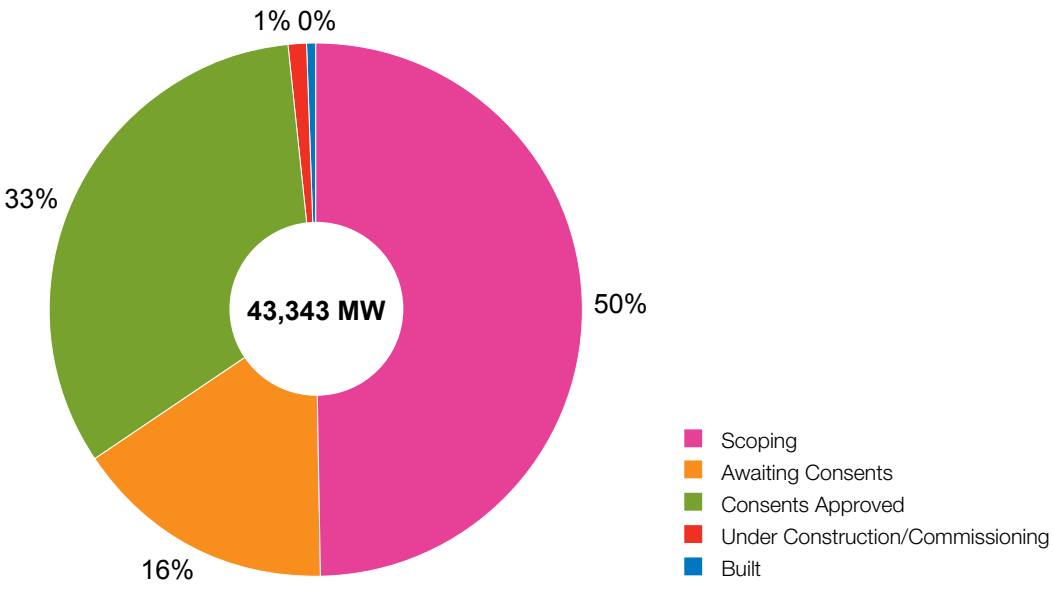
Definitions of project status:

- Scoping – project is still in the phase of preparing to submit data for consents
- Awaiting Consents – project's consents submission is being considered by the appropriate authority
- Consents Approved – project's consents submission to the appropriate authority has been approved
- Under Construction/Commissioning – the project is currently being built or is going through the commissioning phase
- Built – existing generation plant that is changing (increasing or decreasing) its contracted TEC (MW) value.

Current status of renewable MW increase by year to 2026

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Scoping	0	533	55	2123	687	3955	5003	3287	3144	1200	1400	600	21985
Awaiting Consents	0	380	126	853	1294	2338	1137	645	70	50	0	0	6893
Consents Approved	241	3670	1972	4648	1706	1038	1019	0	0	0	0	0	14294
Under Construction/ Commissioning	317	24	0	0	0	0	0	0	0	0	0	0	341
Built	154	-323	0	0	0	0	0	0	0	0	0	0	-170
Grand Total	**711**	**4285**	**2153**	**7624**	**3687**	**7330**	**7159**	**3932**	**3214**	**1250**	**1400**	**600**	**43343**

Current status of contracted future renewable generation to 2026



Non-Renewable projects status by year – Excluding nuclear

The data in the table below shows the amount of non-renewable generation contracted to connect to the NETS and its current project status.

The chart displays the current position of total contracted non-renewable generation up until 2026. It can be seen that a large proportion of this generation is consented, while much of the remainder has submitted consent applications.

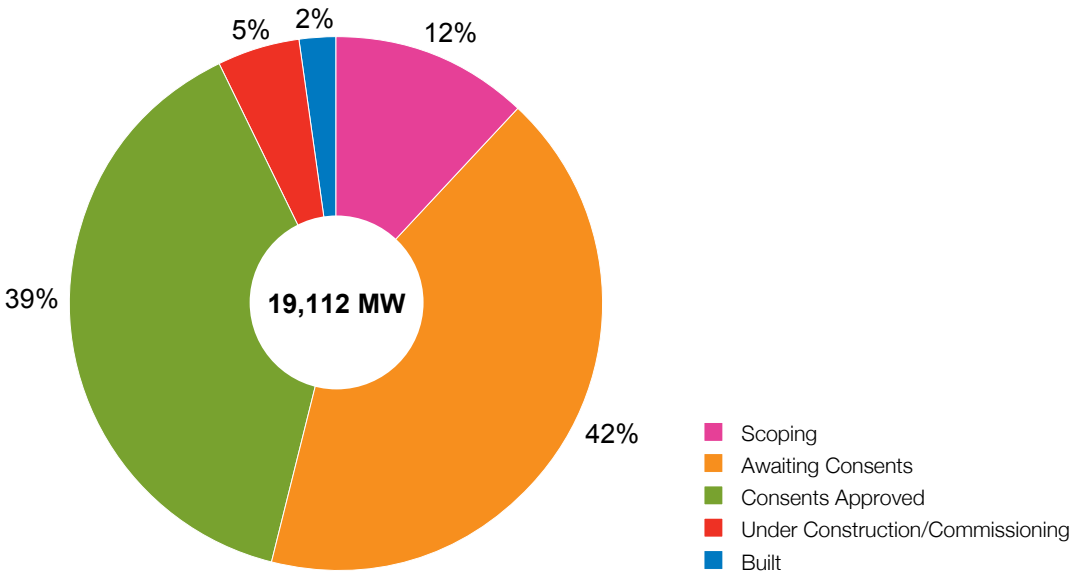
Definitions of projects status:

- Scoping – project is still in the phase of preparing to submit data for consents
- Awaiting Consents – project's consents submission is being considered by the appropriate authority
- Consents Approved – project's consents submission to the appropriate authority has been approved
- Under Construction/Commissioning – the project is currently being built or is going through the commissioning phase
- Built – existing generation plant that is changing (increasing or decreasing) its contracted TEC (MW) value.

Current status of non-renewable MW increase by year to 2026

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Scoping	0	0	0	490	0	598	1200	0	0	0	0	0	2288
Awaiting Consents	0	710	0	1882	3198	0	0	0	0	0	2162	0	7952
Consents Approved	0	1200	1700	2135	0	2481	0	0	0	0	0	0	7516
Under Construction/ Commissioning	910	0	0	0	0	0	0	0	0	0	0	0	910
Built	0	-193	735	-96	0	0	0	0	0	0	0	0	446
Grand Total	**910**	**1717**	**2435**	**4411**	**3198**	**3079**	**1200**	**0**	**0**	**0**	**2162**	**0**	**19112**

Current status of contracted future non-renewable generation to 2026



3
GB projects by year

Non-Renewable projects status by year – nuclear only

The data in the table below shows the amount of nuclear generation contracted to connect and its current project status up to 2026.

The chart below displays the significant quantity of 17.5GW of nuclear generation contracted to connect to the NETS by the end of 2026. Around 19% of this is consented.

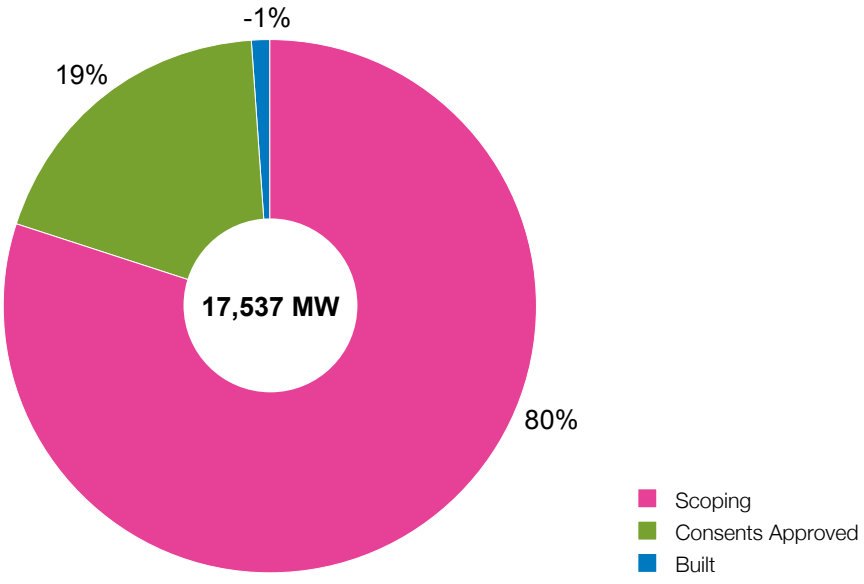
Definitions of projects status:

- Scoping – the project is still in the phase of preparing to submit data for consents
- Awaiting Consents – project's consents submission is being considered by the appropriate authority
- Consents Approved – project's consents submission to the appropriate authority has been approved
- Under Construction/Commissioning – the project is currently being built or is going through the commissioning phase
- Built – existing generation plant that is changing (increasing or decreasing) its contracted TEC (MW) value.

Current status of nuclear MW increase by year to 2026

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Scoping	0	0	0	0	0	3270	3340	0	1600	2529	2529	1129	14397
Consents Approved	0	0	0	0	0	0	0	1670	1670	0	0	0	3340
Built	0	-200	0	0	0	0	0	0	0	0	0	0	-200
Grand Total	**0**	**-200**	**0**	**0**	**0**	**3270**	**3340**	**1670**	**3270**	**2529**	**2529**	**1129**	**17537**

Current status of contracted future nuclear generation to 2026



Interconnector projects status by year

The data in the table below shows the amount of interconnector generation contracted to connect and its current project status up to 2026.

The chart below shows that the majority of this generation is in the Awaiting Consents stage.

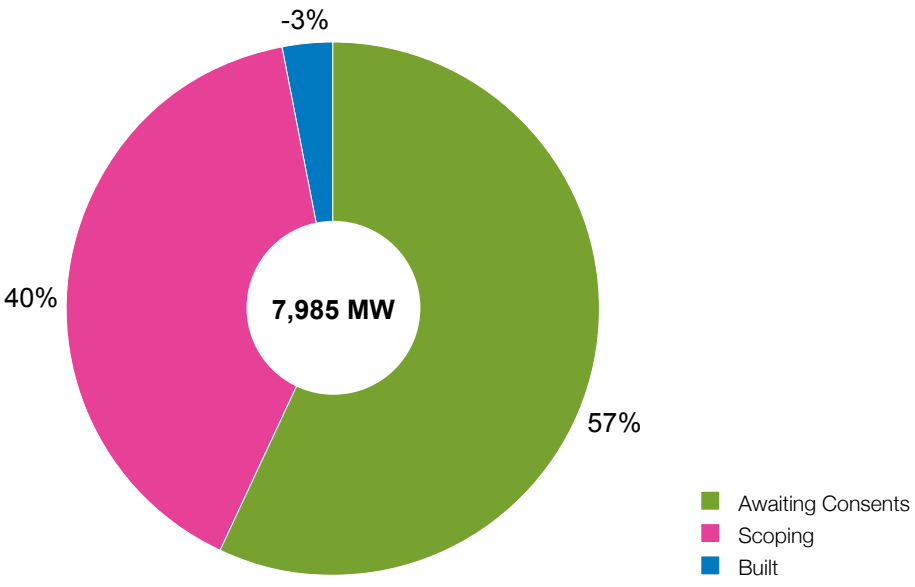
Definitions of projects status:

- Scoping – the project is still in the phase of preparing to submit data for consents
- Awaiting Consents – project's consents submission is being considered by the appropriate authority
- Consents Approved – project's consents submission to the appropriate authority has been approved
- Under Construction/Commissioning – the project is currently being built or is going through the commissioning phase
- Built – existing generation plant that is changing (increasing or decreasing) its contracted TEC (MW) value.

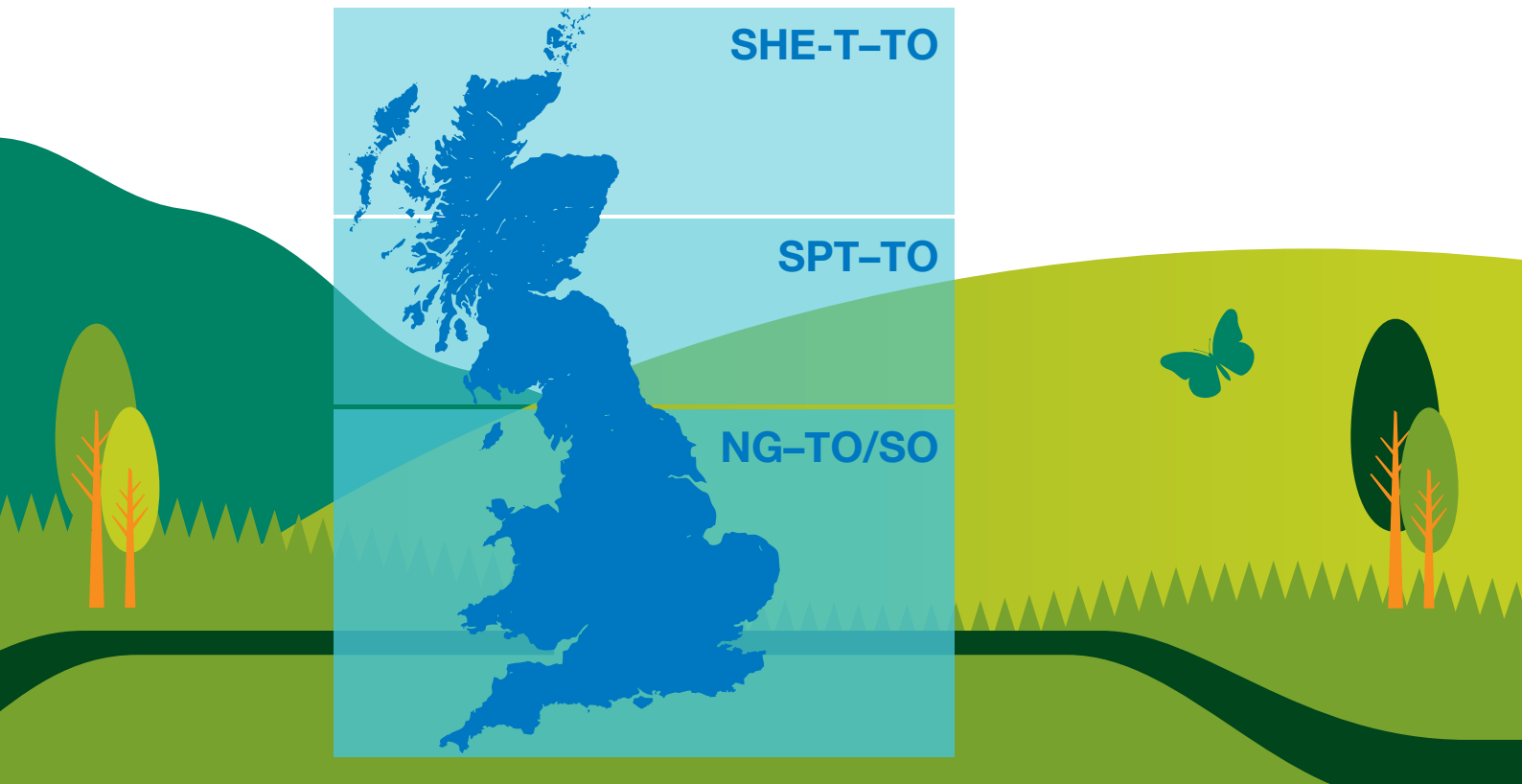
Current status of interconnector MW increase by year to 2026

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Scoping	0	0	0	0	1000	1000	1400	0	0	0	0	0	3400
Awaiting Consents	0	1000	0	1000	1400	1400	0	0	0	0	0	0	4800
Built	0	0	-215	0	0	0	0	0	0	0	0	0	-215
Grand Total	**0**	**1000**	**-215**	**1000**	**2400**	**2400**	**1400**	**0**	**0**	**0**	**0**	**0**	**7985**

Current status of contracted future interconnector generation to 2026



4
Additional data by transmission owner

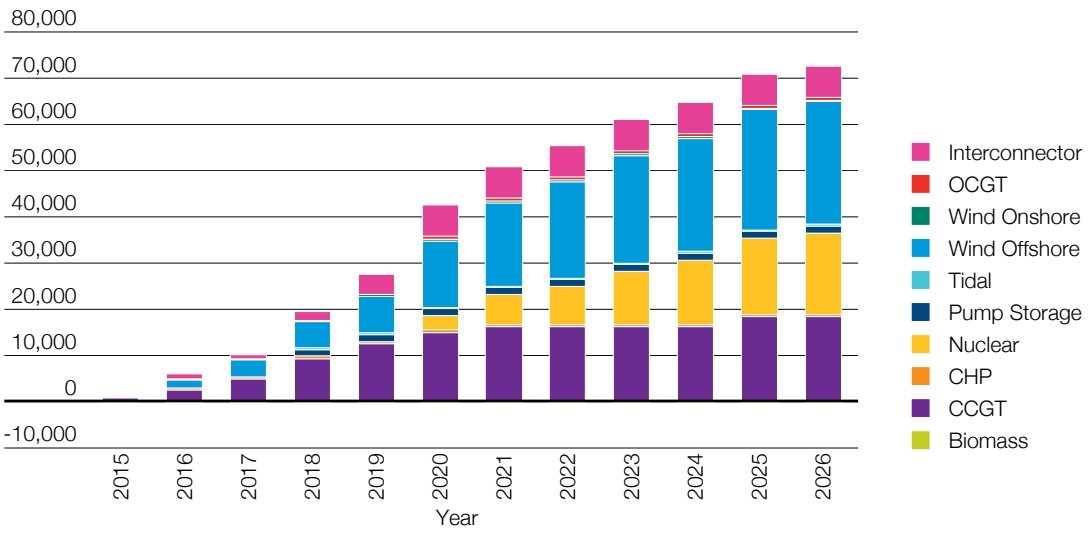


4 Additional data by transmission owner

National Grid Electricity Transmission plc – Plant type by year

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Biomass	0	-105	-105	-105	-105	-105	-105	-105	-105	-105	-105	-105
CCGT	910	2627	5062	9473	12671	15152	16352	16352	16352	16352	18514	18514
CHP	0	490	490	490	490	490	490	490	490	490	490	490
Nuclear	0	-200	-200	-200	-200	3070	6410	8080	11350	13879	16408	17537
Pump Storage	0	0	0	1500	1500	1500	1500	1500	1500	1500	1500	1500
Tidal	0	0	0	320	320	320	320	320	320	320	320	320
Wind Offshore	0	1826	3553	5651	7851	14219	17987	20887	23187	24387	25787	26387
Wind Onshore	0	228	228	228	378	378	378	378	378	378	378	378
OCGT	0	0	0	0	0	598	598	598	598	598	598	598
Interconnector	0	1,000	1,000	2000	4400	6800	6800	6800	6800	6800	6800	6800
Grand Total	**910**	**5866**	**10028**	**19357**	**27305**	**42422**	**50730**	**55300**	**60870**	**64599**	**70690**	**72419**

Note: no new contracted generation after 2026

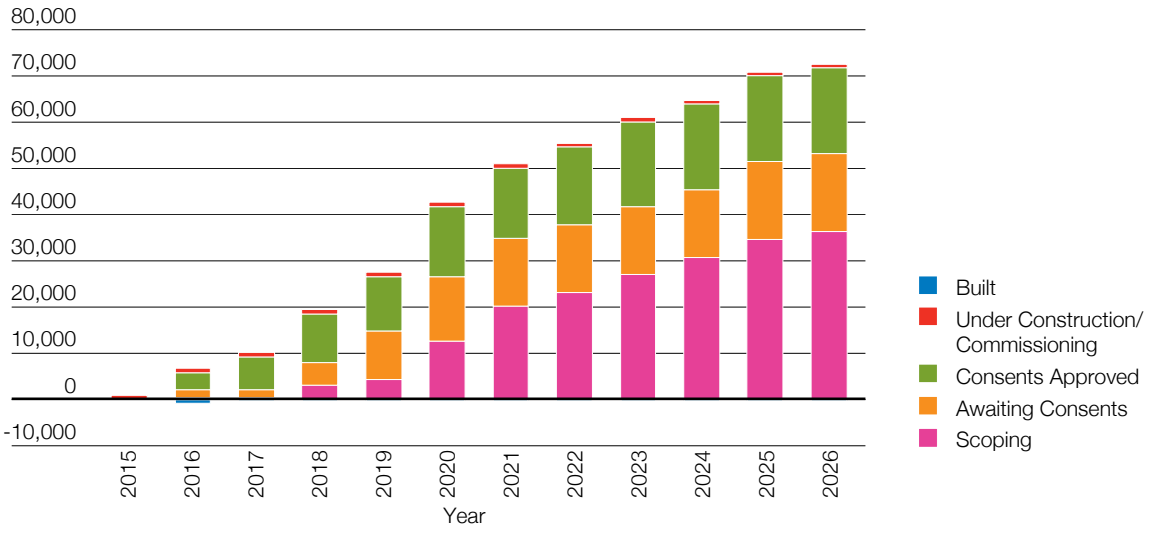


Currently 42GW of generation is contracted to connect by 2020, 36% of which are CCGT projects.

National Grid Electricity Transmission plc – Consents status by year

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Scoping	0	490	490	3000	4350	12718	20158	23058	26958	30687	34616	36345
Awaiting Consents	0	1710	1710	4960	10558	13826	14694	14694	14694	14694	16856	16856
Consents Approved	0	3534	6961	10626	11626	15107	15107	16777	18447	18447	18447	18447
Under Construction/ Commissioning	910	910	910	910	910	910	910	910	910	910	910	910
Built	0	-778	-43	-139	-139	-139	-139	-139	-139	-139	-139	-139
Grand Total	**910**	**5866**	**10028**	**19357**	**27305**	**42422**	**50730**	**55300**	**60870**	**64599**	**70690**	**72419**

Note: no new contracted generation after 2026



National Grid Electricity Transmission plc – Projects Under Construction/Commissioning

Company	Station Name	MW Increase	Connection Date
Carrington Power Ltd	Carrington Power Station	910	2015

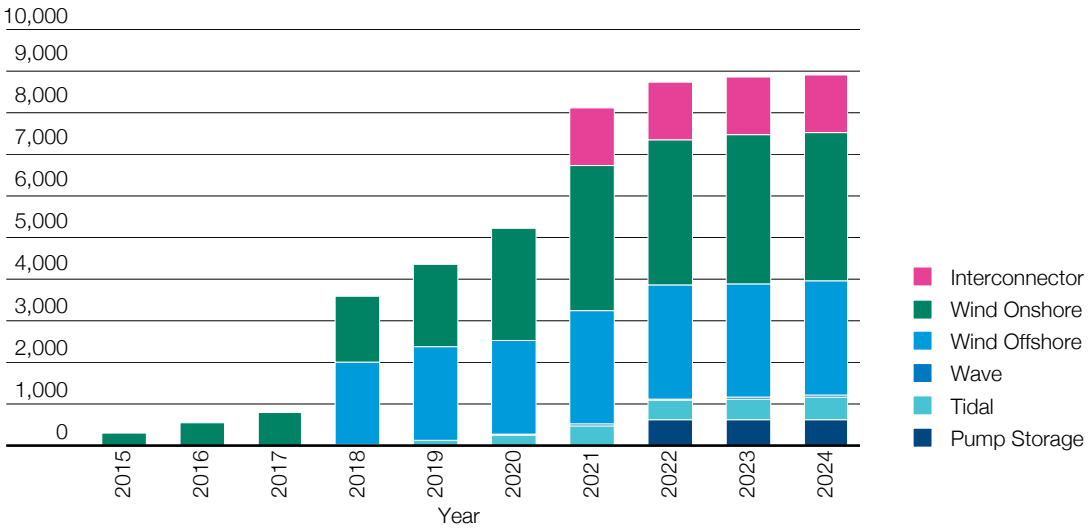
Note: The Connection Date represents the contracted completion date for the project and is subject to the generator successfully completing the compliance process and an Interim Operational Notification being issued to allow generation on to the NETS.

4 Additional data by transmission owner

Scottish Hydro Electric Transmission plc – Plant type by year

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Pump Storage	0	0	0	0	0	0	0	612	612	612
Tidal	0	0	10	25	111	259	467	467	507	557
Wave	0	0	0	0	10	20	40	40	40	40
Wind Offshore	0	0	0	1979	2243	2243	2739	2739	2739	2739
Wind Onshore	305	534	772	1593	1984	2700	3481	3481	3565	3565
Interconnector	0	0	0	0	0	0	1400	1400	1400	1400
Grand Total	**305**	**534**	**782**	**3597**	**4348**	**5222**	**8127**	**8739**	**8863**	**8913**

Note: no new contracted generation after 2024



By 2020 5.2GW of generation is scheduled to have connected. 95% of this total is made up of offshore and onshore wind generation.

Scottish Hydro Electric Transmission plc – Consents status by year

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Scoping	0	0	0	0	165	619	2297	2297	2351	2351
Awaiting Consents	0	175	196	374	524	905	1114	1726	1796	1846
Consents Approved	23	71	298	2935	3371	3408	4427	4427	4427	4427
Under Construction/ Commissioning	282	289	289	289	289	289	289	289	289	289
Grand Total	**305**	**534**	**782**	**3597**	**4348**	**5222**	**8127**	**8739**	**8863**	**8913**

Note: no new contracted generation after 2024

Scottish Hydro Electric Transmission plc – Projects Under Construction/Commissioning

Company	Station Name	MW Increase	Connection Date
North British Windpower Ltd	Corriegarth	19	2015
North British Windpower Ltd	Corriegarth	50	2015
SSE Generation Ltd	Dumnaglass Wind Farm	94	2015
SSE Generation Ltd	Strathy North and South Wind	76	2015
A'Chruach Wind Farm Limited	A'Chruach Wind Farm	43	2015
A'Chruach Wind Farm Limited	A'Chruach Wind Farm	7	2016

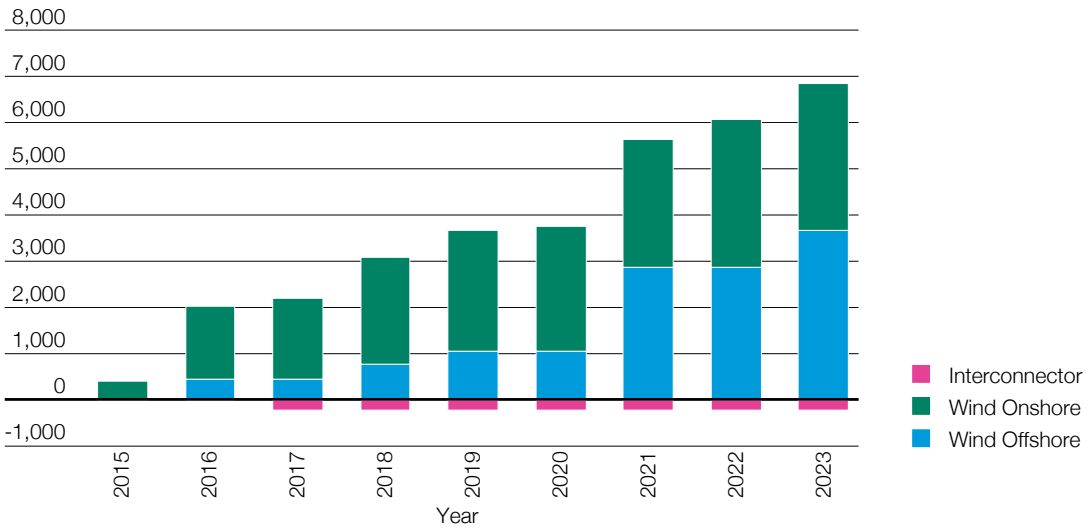
Note: The Connection Date represents the contracted completion date for the project and is subject to the generator successfully completing the compliance process and an Interim Operational Notification being issued to allow generation on to the NETS.

4 Additional data by transmission owner

Scottish Power Transmission Limited – Plant type by year

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023
Wind Offshore	0	450	450	780	1050	1050	2875	2875	3665
Wind Onshore	406	1572	1750	2311	2627	2715	2775	3195	3195
Interconnector	0	0	-215	-215	-215	-215	-215	-215	-215
Grand Total	**406**	**2022**	**1985**	**2876**	**3462**	**3550**	**5435**	**5855**	**6645**

Note: no new contracted generation after 2023

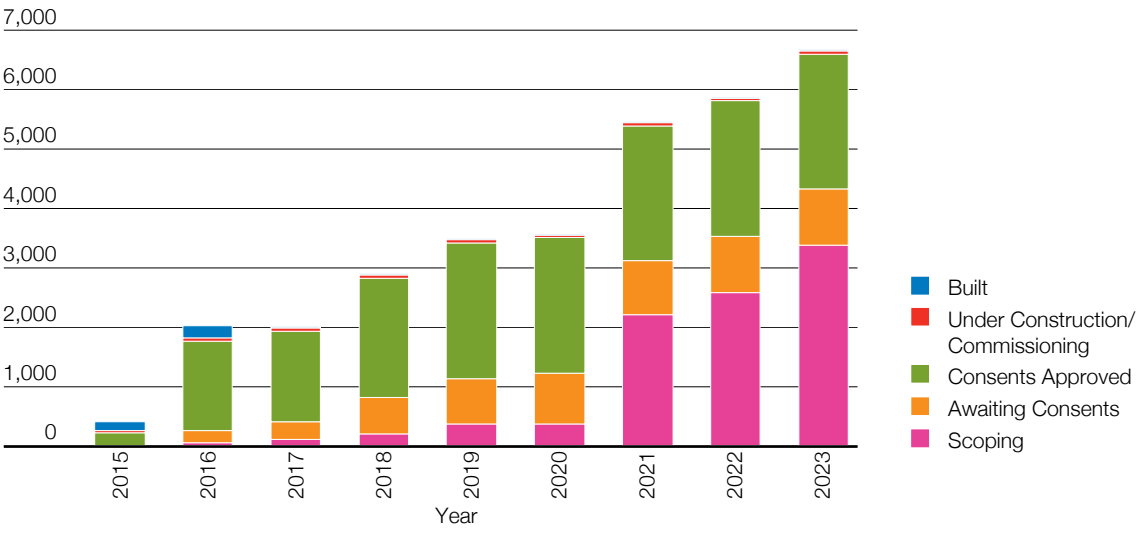


Of the 3.5GW contracted to connect by 2020, 65% of projects have already achieved consent.

Scottish Power Transmission Limited – Consents status by year

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023
Scoping	0	43	97	200	372	372	2197	2584	3374
Awaiting Consents	0	205	310	618	762	850	910	943	943
Consents Approved	218	1507	1525	2006	2276	2276	2276	2276	2276
Under Construction/Commissioning	35	52	52	52	52	52	52	52	52
Built	154	216	1	1	1	1	1	1	1
Grand Total	**406**	**2022**	**1985**	**2876**	**3462**	**3550**	**5435**	**5855**	**6645**

Note: no new contracted generation after 2023



Scottish Power Transmission Limited – Projects Under Construction/Commissioning

Company	Station Name	MW Increase	Connection Date
Andershaw Wind Power Limited	Andershaw Wind Farm	35	2015
ScottishPower Renewables (UK) Ltd	Harestanes Extension	17	2016

Note: The Connection Date represents the contracted completion date for the project and is subject to the generator successfully completing the compliance process and an Interim Operational Notification being issued to allow generation on to the NETS.

5
Connection locations

5
Connection locations

This section provides a breakdown by geographical location building upon the summary provided in Section 4.

The maps on the following pages indicate the location of generation projects. Each project is colour coded to show consents status and whether it is renewable, non-renewable, nuclear or an interconnector.

The project status is also shown in the table where the abbreviations refer to:

Abbreviation	Meaning
S	Scoping
AC	Awaiting Consents
CA	Consents Approved
UC	Under Construction/Commissioning
B	Existing Generation that is changing its contracted TEC (MW) value

The information within this section has been taken from the TEC Register and Interconnector Register (as at 01 April 2015). It therefore relates to projects which are either: directly connecting to the NETS and have entered into a Bilateral Connection Agreement (BCA) or, those that are embedded into a Distribution Network and have chosen to contract via a Bilateral Embedded Generation Agreement (BEGA) to enable their generation to participate in the Balancing Mechanism.

For the avoidance of doubt, the data used for the maps and tables within this section does not include projects which are listed on the Embedded Generation Register. Please refer to Section 7 for information pertaining to embedded generation projects.

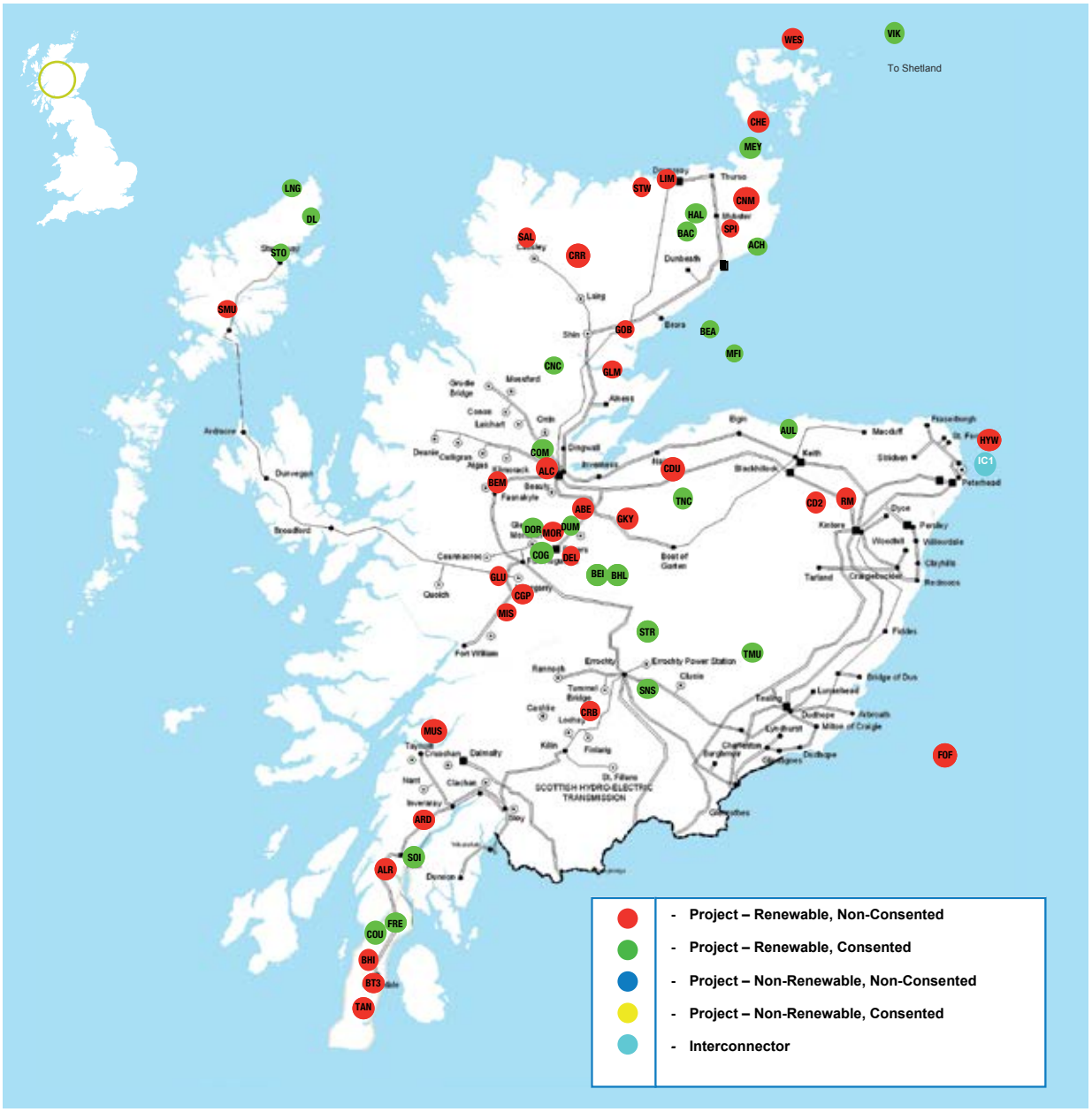
It can be seen that both Northern and Southern Scotland have by far the most projects contracted, though these tend to be relatively small in scale. Whereas in England & Wales there are considerably fewer projects, although a significant proportion of these are larger in scale and require major reinforcement of the network.

For more details on development of the NETS, please refer to our Electricity Ten Year Statement (ETYS).
http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/Electricity-Ten-Year-Statement/

A revised ETYS is published in November of each year reflecting the current position and scenario planning.

Northern Scotland projects map

Northern Scotland has seen a substantial amount of relatively small renewable generation projects contracting for connections. A lack of existing transmission infrastructure means that many of these projects are dependent upon significant reinforcement, often subject to protracted and difficult planning applications.



5 Connection locations

Northern Scotland projects data

	Station Name	Connection Point	MW Increase	Connection Year	Status
ACH	A'Chruach Wind Farm	A'Chruach Wind Farm	43	2015	UC
	A'Chruach Wind Farm	A'Chruach Wind Farm	6.9	2016	UC
COG	Corriegarth	Corriegarth 132/33kV. substation	19.1	2015	UC
	Corriegarth	Corriegarth 132/33kV. substation	49.9	2015	UC
COU	Cour Wind Farm	Cour 132/33kV. Substation	23	2015	CA
DUM	Dumnaglass Wind Farm	Beauly/Foyers	94	2015	UC
SNS	Strathy North and South Wind	Strathy North and Strathy South	76	2015	UC
	Strathy North and South Wind	Strathy North and Strathy South	150	2016	AC
COM	Corriemoillie Wind Farm	Corriemoillie 132/33kV. Substation	47.5	2016	CA
MIS	Millennium South	Millennium South 132/33kV. Substation	25	2016	AC
	Millennium South	Millennium South 132/33kV. Substation	25	2021	AC
BEM	Beinn Mhor Wind Farm	Fasnakyle	21	2017	AC
BEI	Beinneun Wind Farm	Beinneun 132/33kV. substation	109	2017	CA
BHL	Bhlaraidh Wind Farm	Levishie Wind Farm Substation	108	2017	CA
SOI	Sound of Islay Tidal	Islay	10	2017	CA
AUL	Aultmore Wind Farm	Aultmore	29.5	2018	CA
BAC	Bad a Cheo Wind Farm	Mybster	29.9	2018	CA
BEA	Beatrice Wind Farm	Beatrice 33/132kV. Offshore Substations	20	2018	CA
	Beatrice Wind Farm	Beatrice 33/132kV. Offshore Substations	380	2018	CA
	Beatrice Wind Farm	Beatrice 33/132kV. Offshore Substations	264	2019	CA
CNC	Coire Na Cloiche	Alness GSP	30	2018	CA
DEL	Dell Wind Farm	Dell 132/33kV. Substation	42	2018	AC
DOR	Dorenell Wind Farm	Dorenell	220	2018	CA
FOF	Firth of Forth Offshore Wind Farm 1A	Tealing Substation	545	2018	CA
	Firth of Forth Offshore Wind Farm 1B	Tealing Substation	530	2018	CA
GKY	Glen Kyllachy Wind Farm	Glen Kyllachy Wind Farm	48.5	2018	AC
MEY	MeyGen Tidal	Gills Bay	15	2018	CA
	MeyGen Tidal	Gills Bay	56	2019	CA
	MeyGen Tidal	Gills Bay	83	2020	AC
	MeyGen Tidal	Gills Bay	83	2021	AC
MFI	Moray Firth Offshore Wind Farm		504	2018	CA
	Moray Firth Offshore Wind Farm		496	2021	CA
SAL	Sallachy Wind Farm	Sallachy 132kV. Substation	66	2018	AC
SPI	Spittal Hill Wind Farm	Spittal Hill Wind Farm 132/33kV. Substation	21	2018	AC
STR	Stronelairg	Stronelairg 132/133kV. Substation	241.2	2018	CA
TNC	Tom Na Clach	Tom Na Clach 132/33kV. Substation	75	2018	CA
TMU	Tullymurdoch Wind Farm	Coupar Angus	17.5	2018	CA
ABE	Aberarder Wind Farm	Aberarder 132/33kV. Substation	35.8	2019	S
CHE	Cantick Head	Bay of Skaill 132/33kV. substation	30	2019	S
	Cantick Head	Bay of Skaill 132/33kV. substation	65	2020	S
	Cantick Head	Bay of Skaill 132/33kV. substation	65	2021	S
CRB	Crossburns Wind Farm	Crossburns	99	2019	S
DL	Druim Leathann	Druim Leathann 132/33kV. substation	39	2019	CA
HAL	Halsary Wind Farm	Mybster 132/33kV. Substation	28.5	2019	CA
LNG	Lag Na Greine Phase 1	Siadar	10	2019	CA
	Lag Na Greine Phase 2	Siadar	10	2020	CA
	Lag Na Greine Phase 3	Siadar	20	2021	CA

Continued on next page

Northern Scotland projects data continued

	Station Name	Connection Point	MW increase	Connection Year	Status
SMU	South Muaitheabhal Wind Farm	Muaitheabhal 132/33kV. Substation	150	2019	AC
STO	Stornoway Wind Farm	Stornoway 132/33kV. Substation	38.5	2019	CA
	Stornoway Wind Farm	Stornoway 132/33kV. Substation	91.1	2021	CA
ALC	Allt Carach	Allt Carach	75.9	2020	S
BT3	Beinn an Tuirc 3	Carradale 132/33kV. Substation	50	2020	AC
BHI	Blary Hill Wind Farm	Carradale	35	2020	S
CDU	Cairn Duhie Wind farm	Cairn Duhie 275/33kV. Substation	59.7	2020	S
CNM	Cnoc Morail	Mybster	18.4	2020	S
CRR	Creag Riabhach Wind Farm	Creag Riabhach 132/33kV. Substation	72.6	2020	S
FRE	Freasdail	Crossaig 132kV. Substation	27.5	2020	CA
GLM	Glenmorie Windfarm	Glenmorie 132/33kV. substation	114	2020	AC
GOB	Gordonbush Wind Farm Extension	Gordonbush	38	2020	S
LIM	Limekilns	Limekilns 132/33kV. substation	90	2020	S
RM	Rothmaise Wind Farm	Rothiemorman	11.5	2020	AC
STW	Strathy Wood	Strathy Wood	84	2020	AC
TAN	Tangy III Wind Farm	Carradale	39.1	2020	AC
ALR	Alt Rhuba Wind Farm	Allt Rhuba 132/33kV.	43.7	2021	S
ARD	Ardchonnel Wind Farm	Crossaig 132kV. Substation	40.7	2021	AC
GLU	Glen Ullinish Wind Farm	Glen Ullinish 132/33kV. Substation	42	2021	S
MOR	Moriston Wind Farm	Moriston Wind Farm 132/33kV. Substation	63	2021	S
MUS	Musdale Wind Farm	Musdale 132/33kV. Substation	64	2021	S
VIK	Viking Wind Farm	Kergord	412	2021	CA
WES	Westray South	Crook 132/33kV. Substation	60	2021	AC
	Westray South	Crook 132/33kV. Substation	40	2023	AC
	Westray South	Crook 132/33kV. Substation	50	2024	AC
CGP	Coire Glas Pumped Storage	Coire Glas	612	2022	AC
CD2	Clashindarroch 2	Cairnford	54	2023	S
HYW	Hywind Wind Farm	Peterhead	30	2023	AC
		Total MW	**7513**		
IC1	Norway Interconnector	Peterhead 400kV.	1400	2021	S
		Total MW	**1400**		

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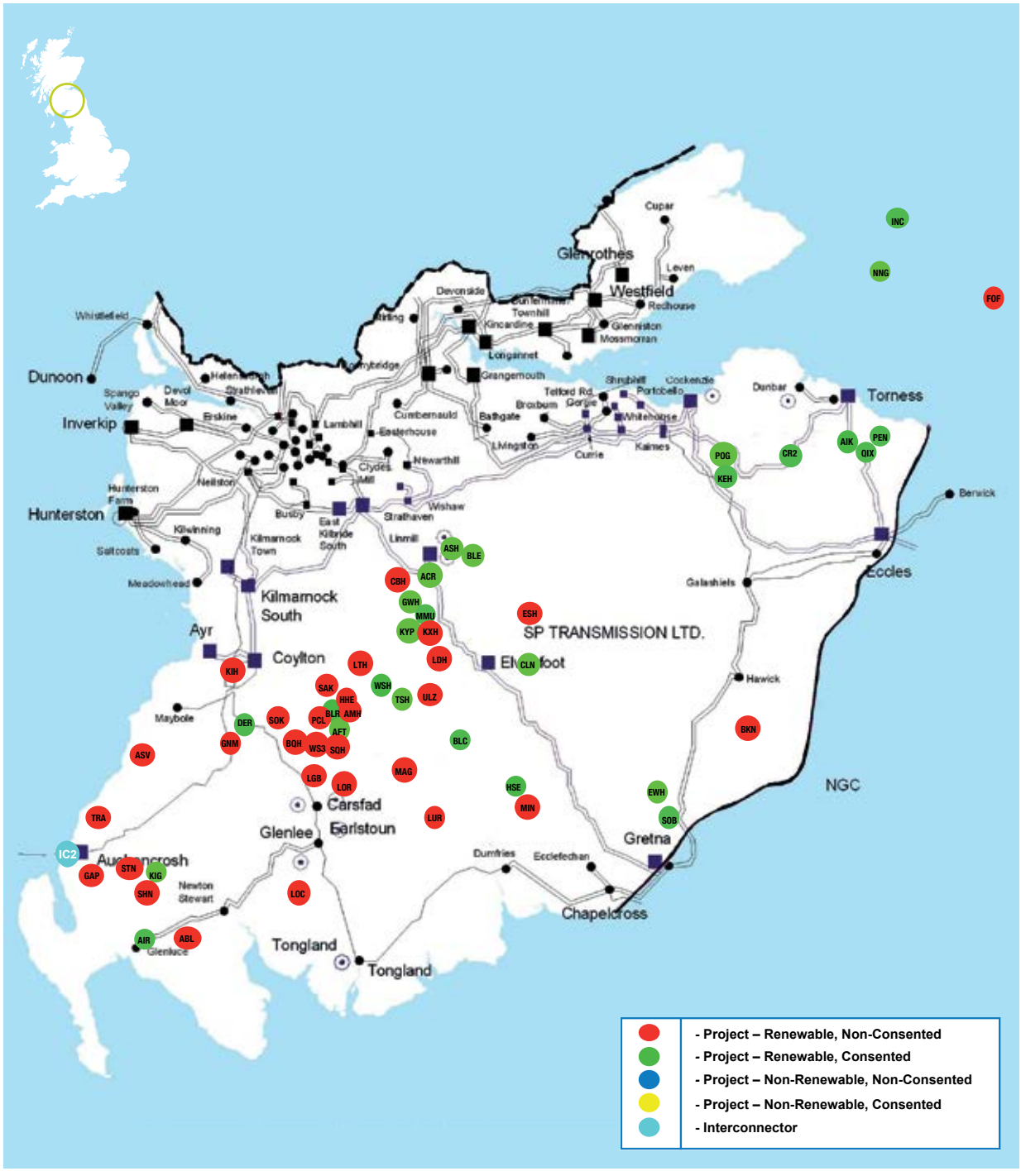
Connection locations

Southern Scotland projects map

Southern Scotland also has a significant amount of new, mainly renewable, generation. The majority of projects do not have the required consents and there is a great deal of reinforcement work required.



Southern Scotland projects data

	Station Name	Connection Point	MW Increase	Connection Year	Status
AFT	Afton	Afton	68	2015	UC
ASH	Andershaw Wind Farm	Linnmill GSP	35	2015	UC
BLE	Blacklaw Extension	Blacklaw Extension	69	2015	CA
CLN	Clyde North	Clyde North 275/33kV.	153.5	2015	B
DER	Dersalloch Wind Farm	Dersalloch	69	2015	CA
POG	Pogbie Wind Farm	Pogbie 33kV. Substation	11.8	2015	CA
AIK	Aikengall II Windfarm	Westerdod 132kV.	140	2016	CA
AIR	Airies Wind Farm	Newton Stewart 132/33kV. Substation	35	2016	CA
AMH	Ashmark Hill Wind Farm	Coylton	20.5	2016	AC
ASV	Assel Valley Wind Farm	Maybole 132/33kV.	29.95	2016	AC
ACR	Auchrobert Wind Farm	Linmill	36	2016	CA
BLC	Blackcraig Wind Farm	Black Craig	57.5	2016	CA
BLR	Brockloch Rig Wind Farm	Dun Hill	75	2016	CA
CR2	Crystal Rig 2	Crystal Rig	62	2016	B
EWH	Ewe Hill	Ewe Hill	39	2016	CA
GWH	Galawhistle Wind Farm	Galawhistle Wind Farm	55.2	2016	CA
GAP	Glen App Windfarm	Glen App and Loch Ree 132/33kV. Substation	32.2	2016	AC
HHE	Harehill Wind Farm Extension	Coylton	29.75	2016	AC
HSE	Harestanes Extension	Harestanes	17.3	2016	UC
KEH	Keiths Hill Wind Farm	Keithshill 33kV.	4	2016	CA
KIG	Kilgallioch	Kilgallioch 132/33kV. Substation	274	2016	CA
MAG	Margree	Margree 132/33kV. Substation	42.5	2016	S
NNG	Neart Na Goaithe Offshore Wind Farm		450	2016	CA
PCL	Pencloe Windfarm	Pencloe 132/33kV.	63	2016	AC
	Pencloe Windfarm	Pencloe 132/33kV.	33	2022	AC
PEN	Penmanshiel	Berwick 33kV.	28.7	2016	CA
QIX	Quixwood Wind Farm	Berwick 33kV.	32.5	2016	CA
SOB	Solway Bank	Chapelcross 132/33kV. Substation	35	2016	CA
ULZ	Ulzieside	Ulzieside 132/33kV.	30	2016	AC
WSH	Whiteside Hill Wind Farm	Coylton	-25.3	2016	CA
	Whiteside Hill Wind Farm	Coylton	25.3	2016	CA
	Whiteside Hill Wind Farm	Coylton	27	2016	CA
ABL	Annabagliesh	Glenluce 132/33kV. Substation	34.5	2017	S
ESH	Earlshaugh Wind Farm	Earlshaugh 132/33kV. Substation	55	2017	AC
LDH	Leadhills Wind Farm	Leadhills 132/33kV.	50	2017	AC
SHN	Shennanton Wind Farm	Newton Stewart	20	2017	S
TSH	Twentyshilling Wind Farm	Dumfries	18	2017	CA
BQH	Benbrack & Quantans Hill	Kendoon North	72	2018	AC
INC	Inch Cape Offshore Wind Farm Platform 1	Inch Cape Offshore Platform 1	130	2018	CA
	Inch Cape Offshore Wind Farm Platform 1	Inch Cape Offshore Platform 1	200	2018	CA
	Inch Cape Offshore Wind Farm Platform 2	Inch Cape Offshore Platform 2	270	2019	CA
KIH	Kiers Hill	Coylton 132/33kV.	57.6	2018	S
KYP	Kype Muir	Coalburn	99.9	2018	CA
LOC	Loch Hill Wind Farm	Loch Hill 33kV. Substation	27	2018	AC
MMU	Middle Muir Wind Farm	Middle Muir 132kV.	51	2018	CA
MIN	Minnygap	Moffat 132/33kV.	25	2018	S
SOK	South Kyle	New Cummock	165	2018	AC
TRA	Tralorg Wind Farm	Tralorg 22kV.	20	2018	S

Continued on next page

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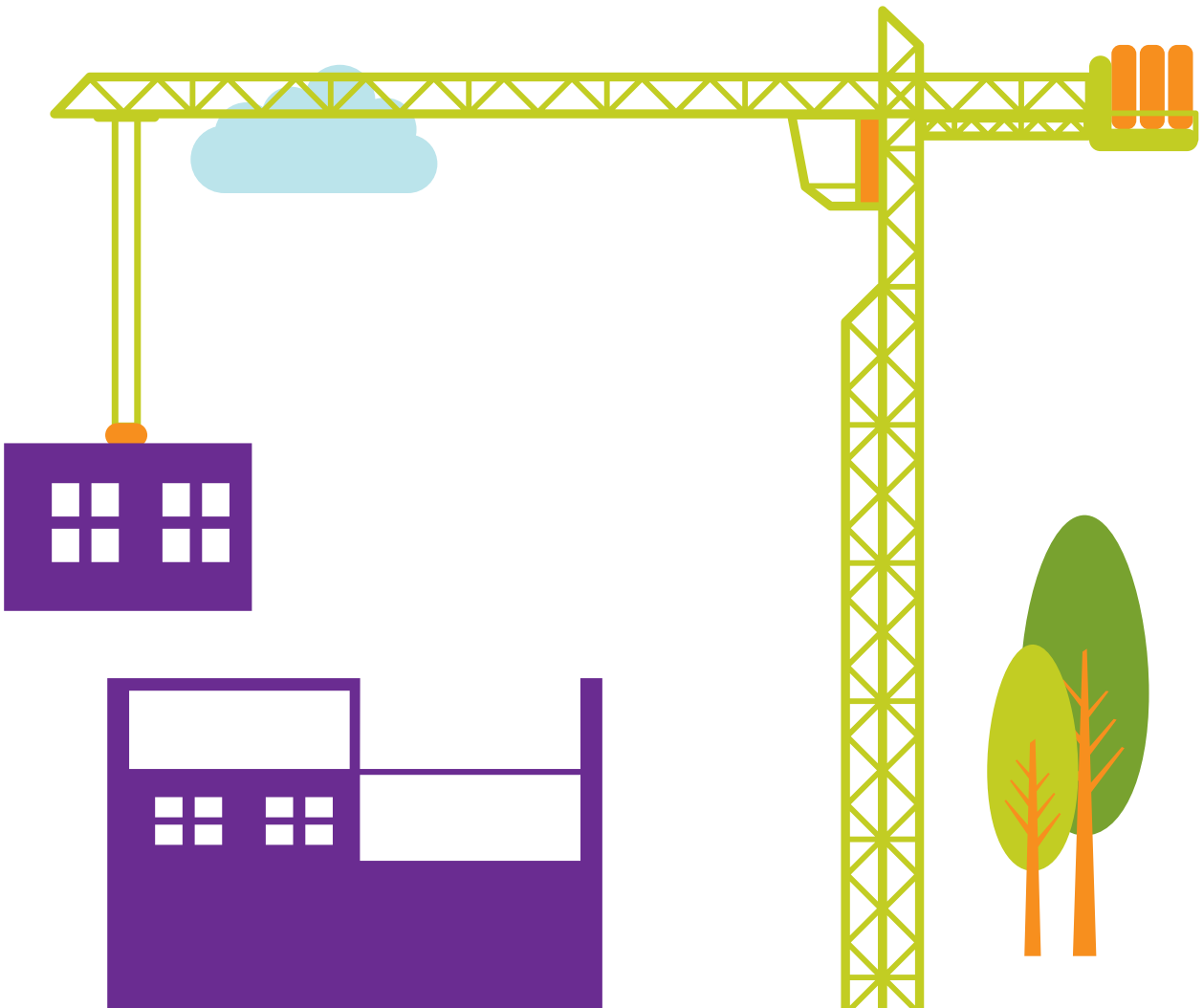
Connection locations

Southern Scotland projects data continued

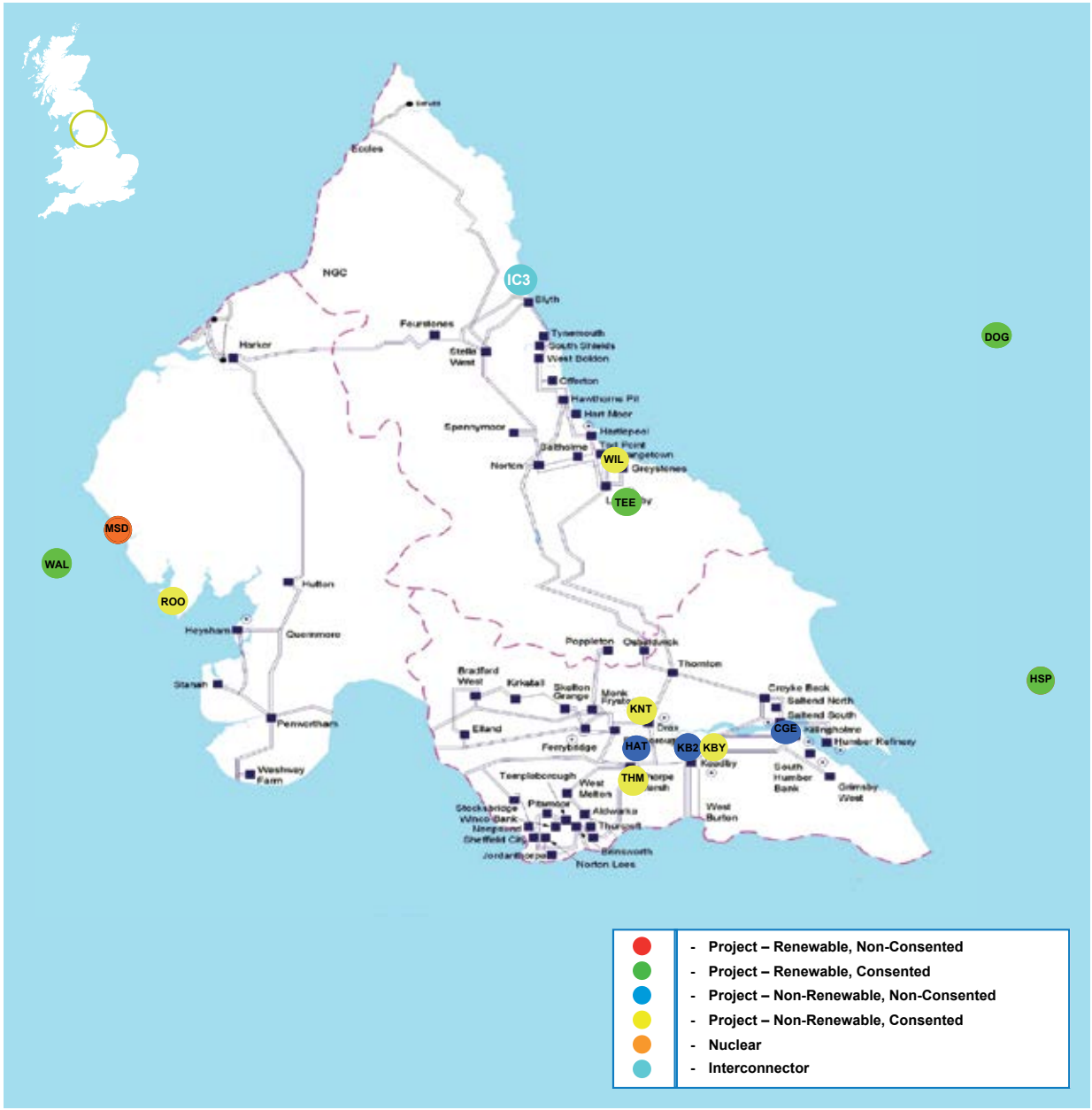
	Station Name	Connection Point	MW increase	Connection Year	Status
WS3	Windy Standard III Wind Farm	Dun Hill	43.5	2018	AC
CBH	Cumberhead	Cumberhead	99	2019	S
GNM	Glenmount Wind Farm	Glenmount	73	2019	S
KXH	Kennoxhead Wind Farm	Kennoxhead	59.8	2019	AC
LUR	Loch Urr	Loch Urr	84	2019	AC
LTH	Lethans Wind Farm	Lethans 132kV. Substation	88.4	2020	AC
BKN	Birneyknowe Wind Farm	Gretna	60	2021	AC
FOF	Firth of Forth Offshore Wind Farm 2A East & 2A West		605	2021	S
	Firth of Forth Offshore Wind Farm 2B East & 2B West		610	2021	S
	Firth of Forth Offshore Wind Farm 2C East & 2C West		610	2021	S
	Firth of Forth Offshore Wind Farm 3A East		565	2023	S
	Firth of Forth Offshore Wind Farm 3B West		225	2023	S
LGB	Long Burn Wind Farm		60	2022	S
LOR	Lorg Wind Farm	Lorg Wind Farm 132/32kV.	66	2022	S
SAK	Sandy Knowe Wind Farm	Sandy Knowe	90	2022	S
SQH	Sanquhar Wind Farm	Sanquhar 132/33kV.	99	2022	S
STN	Stranoch Wind Farm	Stranoch Wind 132/33kV.	72	2022	S
		Total MW	**6860**		
IC2	Auchencrosh (interconnector CCT)	Auchencrosh 275kV.	-215	2017	B
		Total MW	**-215**		



5
Connection locations

Northern England projects map

Far fewer individual projects are contracted in this area compared to Scotland. However, this area contains significant Round 3 offshore wind projects. It is also worth noting the greater mix of renewable and non-renewable projects within this area.



Northern England projects data

	Station Name	Connection Point	MW increase	Connection Year	Status
HSP	Hornsea Power Station 1A	Hornsea Platform 1A Offshore Substation	500	2016	CA
	Hornsea Power Station 1B	Hornsea Platform 1B Offshore Substation	500	2017	CA
	Hornsea Power Station 2A	Hornsea Platform 2A Offshore Substation	500	2019	AC
	Hornsea Power Station 2B	Hornsea Platform 2B Offshore Substation	500	2020	AC
	Hornsea Power Station 3A	Hornsea Platform 3A Offshore Substation	500	2020	S
	Hornsea Power Station 3B	Hornsea Platform 3B Offshore Substation	500	2021	S
	Hornsea Power Station 4A	Hornsea Platform 4A Offshore Substation	500	2022	S
	Hornsea Power Station 4B	Hornsea Platform 4B Offshore Substation	500	2023	S
KB2	Keadby II	Keadby	710	2016	AC
ROO	Roosecote	Hutton 132kV. Substation	-99	2016	B
TEE	Tees Renewable Energy Plant	Teesside Power Station	280	2016	CA
WIL	Wilton	Wilton 66kV.	42	2016	B
KBY	Keadby	Keadby	735	2017	B
THM	Thorpe Marsh	Thorpe Marsh	1200	2017	CA
WAL	Walney 3 Offshore Wind Farm		330	2017	CA
	Walney 4 Offshore Wind Farm		330	2018	CA
CGE	C.Gen Killingholme North Power Station	C.Gen North Killingholme	490	2018	S
DOG	Dogger Bank Platform 1	Dogger Bank 220/33kV. Offshore Substations	500	2019	CA
	Dogger Bank Platform 1	Dogger Bank 220/33kV. Offshore Substations	500	2020	CA
	Dogger Bank Platform 2	Dogger Bank 220/33kV. Offshore Substations	500	2019	AC
	Dogger Bank Platform 2	Dogger Bank 220/33kV. Offshore Substations	500	2020	AC
	Dogger Bank Platform 4	Dogger Bank 220/33kV. Offshore Substations	500	2019	CA
	Dogger Bank Platform 4	Dogger Bank 220/33kV. Offshore Substations	500	2020	CA
	Dogger Bank Platform 3	Dogger Bank 220/33kV. Offshore Substations	500	2020	AC
	Dogger Bank Platform 3	Dogger Bank 220/33kV. Offshore Substations	500	2021	AC
	Dogger Bank Platform 5	Dogger Bank 220/33kV. Offshore Substations	500	2022	S
	Dogger Bank Platform 5	Dogger Bank 220/33kV. Offshore Substations	500	2023	S
	Dogger Bank Platform 6	Dogger Bank 220/33kV. Offshore Substations	500	2022	S
	Dogger Bank Platform 6	Dogger Bank 220/33kV. Offshore Substations	500	2023	S
HAT	Hatfield Power Station	Thorpe Marsh 400kV. Substation	800	2019	AC
KNT	Knottingley Power Station	Knottingley	1500	2020	CA
MSD	Moorside	Moorside 400kV. Substation	1129	2024	S
	Moorside	Moorside 400kV. Substation	1129	2025	S
	Moorside	Moorside 400kV. Substation	1129	2026	S
		Total MW	**19705**		
IC3	Norway Interconnector (NSN)	Blyth 400kV. Substation	1400	2019	AC
		Total MW	**1400**		

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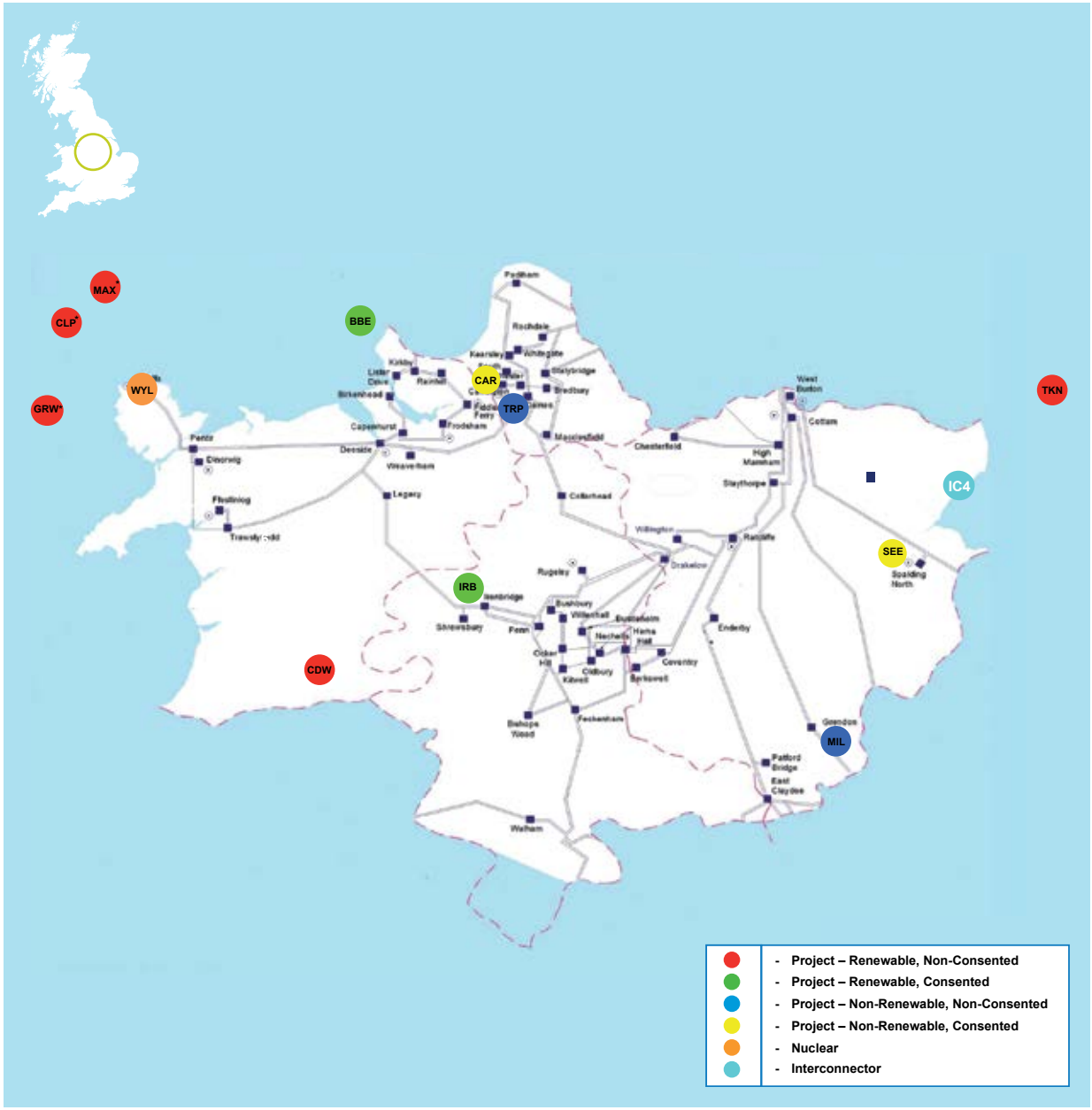
Connection locations

Central England and North Wales projects map

Central England and North Wales has a contracted background of non-renewable power stations and offshore wind from both the Irish Sea and North Sea, for which significant network reinforcements are required. In addition, onshore wind from mid Wales will require new connections into the network.



* Projects connecting to North Wales from Ireland

Central England and North Wales projects data

	Station Name	Connection Point	MW increase	Connection Year	Status
CAR	Carrington Power Station	Carrington	910	2015	UC
BBE	Burbo Bank Extension Offshore Wind Farm	NGET Bodelwyddan 400kV. Substation	254	2016	CA
IRB	Ironbridge	Ironbridge	-385	2016	B
MAX	Marex	Connahs Quay 400kV.	1500	2018	S
SEE	Spalding Energy Expansion	Spalding	625	2018	CA
TRP	Trafford Power - Stage 1	Carrington 400kV.	1882	2018	AC
	Trafford Power - Stage 2	Carrington 400kV.	2162	2025	AC
TKN	Triton Knoll Offshore Wind Farm 1		200	2018	S
	Triton Knoll Offshore Wind Farm 1		200	2019	S
	Triton Knoll Offshore Wind Farm 2		200	2021	S
	Triton Knoll Offshore Wind Farm 2		200	2022	S
	Triton Knoll Offshore Wind Farm 3		200	2024	S
	Triton Knoll Offshore Wind Farm 3		200	2025	S
CDW	Carnedd Wen Wind Farm	Mid-Wales West	150	2019	S
GRW	Greenwire Wind Farm - Pentir	Pentir 400kV. Substation	1000	2020	S
MIL	Millbrook Power	Millbrook 400kV.	299	2020	S
CLP	Codling Park Wind Farm	Pentir Substation	1000	2021	S
WYL	Wylfa Newydd	Wylfa 400kV. Substation	1400	2024	S
	Wylfa Newydd	Wylfa 400kV. Substation	1400	2025	S
		Total MW	**13397**		
IC4	Viking Link Denmark Interconnector	Bicker Fenn 400kV. Substation	1000	2020	S
		Total MW	**1000**		

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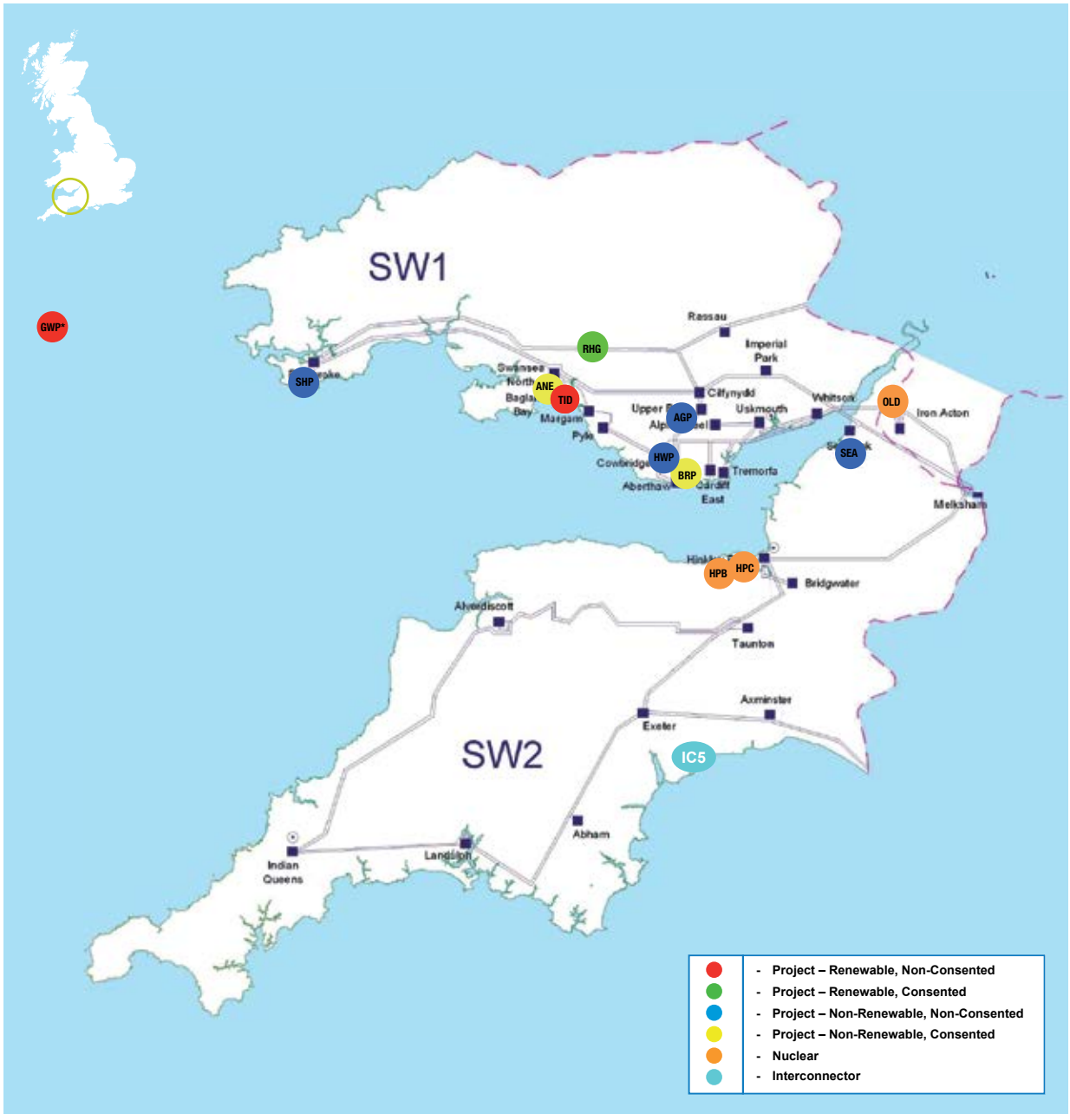
Connection locations

South West England and South Wales projects map

The South West has a number of non-renewable projects including nuclear sites. Also contracted to connect towards the end of the decade is a significant amount of offshore and onshore wind from the Irish Sea and Irish mainland.



* Projects connecting from Ireland

South West England and South Wales projects data

	Station Name	Connection Point	MW increase	Connection Year	Status
BRP	Barry Power Station	Aberthaw 132kV. substation	-136	2016	B
HPB	Hinkley Point B	Hinkley Point 275kV. Substation	-200	2016	B
HPC	Hinkley Point C	Hinkley 400kV. Substation	1670	2022	CA
	Hinkley Point C	Hinkley 400kV. Substation	1670	2023	CA
RHG	Rhigos	Rhigos	228	2016	CA
SHP	South Hook CHP Plant	Pembroke 400kV. Substation	490	2016	S
ANE	Abernedd Power Station	Baglan Bay 275kV.	500	2017	CA
	Abernedd Power Station	Baglan Bay 275kV.	414	2018	CA
TID	Tidal Lagoon	Baglan Bay	320	2018	S
HWP	Hirwaun Power Station	Rhigos	299	2019	AC
AGP	Abergelli Power	Swansea North 400kV.	299	2020	S
GWP	Greenwire Wind Farm - Pembroke	Pembroke 400kV. Substation	2000	2020	S
OLD	Oldbury-on-Severn	Oldbury-on-Severn 400kV. Substation	1600	2020	S
	Oldbury C	Oldbury-on-Severn 400kV. Substation	1600	2023	S
SEA	Seabank 3	Seabank 400kV. Substation	1200	2021	S
		Total MW	**11954**		
IC5	FAB Link Interconnector	Exeter 400kV. Substation	1400	2020	AC
		Total MW	**1400**		

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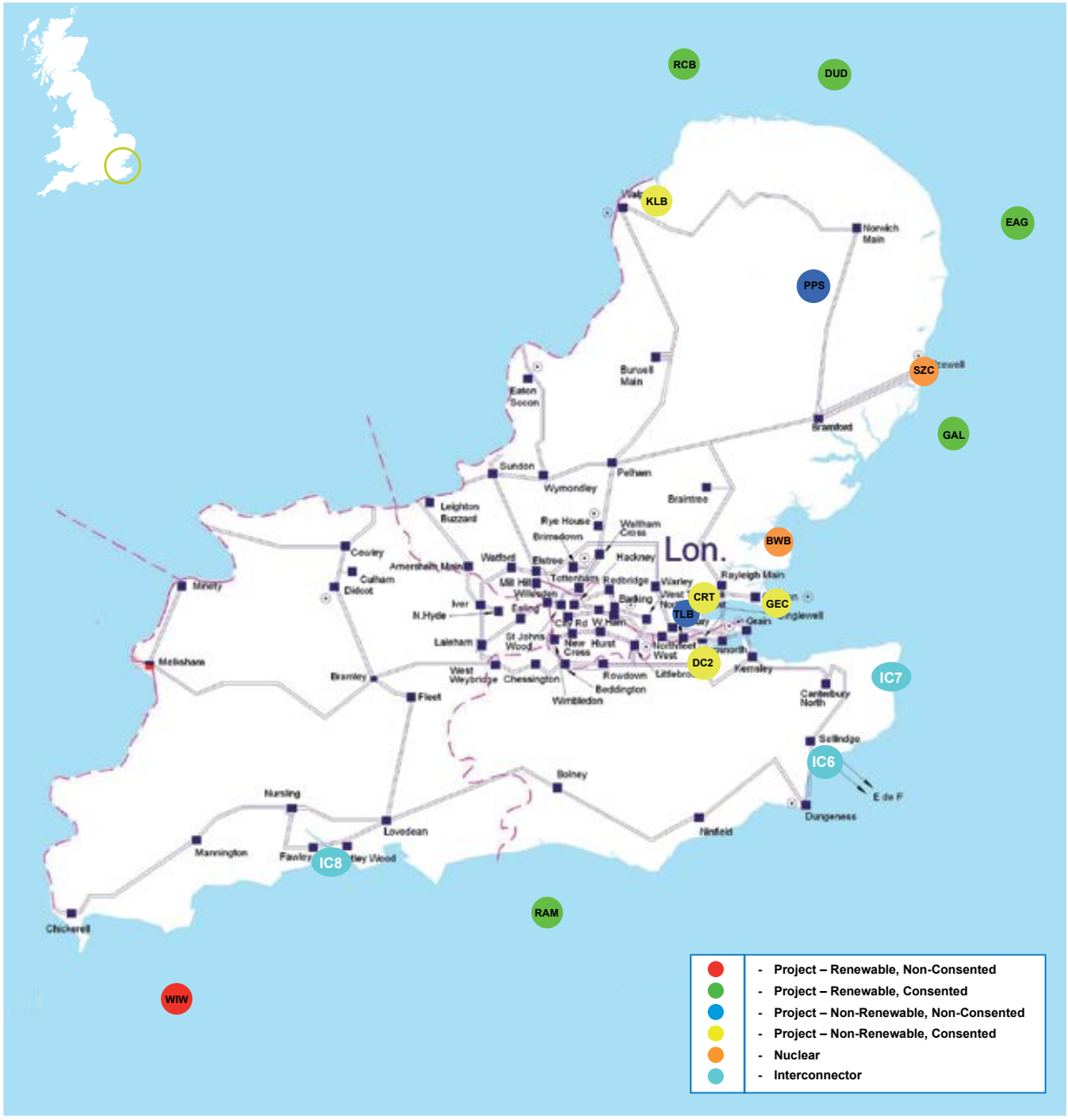
Connection locations

South East England projects map

Much of the new generation in this area is non-renewable. However, there are several renewable projects around the coast of Norfolk in the form of offshore wind farms. Most of the reinforcement work in this area is concentrated around the Thames estuary and the new nuclear site at Sizewell.



South East England projects map

	Station Name	Connection Point	MW increase	Connection Year	Status
DC2	Damhead Creek II	Damhead Creek 400kV.	1200	2016	CA
DUD	Dudgeon Offshore Wind Farm	Necton 400kV. Substation	400	2016	CA
GAL	Galloper Wind Farm	Galloper North 132/33kV.	156	2016	CA
	Galloper Wind Farm	Galloper North 132/33kV.	184	2016	CA
RAM	Rampion Offshore Wind Farm	Rampion 33/132kV. Offshore Substation	332	2016	CA
	Rampion Offshore Wind Farm	Rampion 33/132kV. Offshore Substation	332	2017	CA
RCB	Race Bank Wind Farm	Race Bank 132/33kV. Substation	160	2017	CA
	Race Bank Wind Farm	Race Bank 132/33kV. Substation	405	2017	CA
CRT	Coryton	Coryton	-96	2018	B
EAG	East Anglia 1	Platform EA1A and Platform EA1B 220/33kV. Substations	600	2018	CA
	East Anglia 1	Platform EA1A and Platform EA1B 220/33kV. Substations	600	2018	CA
	East Anglia 2	Platform EA2A and Platform EA2B 220/33kV. Substations	400	2023	S
	East Anglia 2	Platform EA2A and Platform EA2B 220/33kV. Substations	400	2023	S
	East Anglia 3	Platform EA3A and Platform EA3B 220/33kV. Substations	600	2021	S
	East Anglia 3	Platform EA3A and Platform EA3B 220/33kV. Substations	600	2021	S
	East Anglia 4	Platform EA4A and Platform EA4B 220/33kV. Substations	600	2022	S
	East Anglia 4	Platform EA4A and Platform EA4B 220/33kV. Substations	600	2022	S
	East Anglia 5	Platform EA5A and Platform EA5B 220/33kV. Substations	500	2024	S
	East Anglia 5	Platform EA5A and Platform EA5B 220/33kV. Substations	500	2024	S
	East Anglia 6	Platform EA6A and Platform EA6B and Platform EA6C 220/33kV. Substations	600	2025	S
	East Anglia 6	Platform EA6A and Platform EA6B and Platform EA6C 220/33kV. Substations	600	2025	S
	East Anglia 6	Platform EA6A and Platform EA6B and Platform EA6C 220/33kV. Substations	600	2026	S
GEC	Gateway Energy Centre Power Station	Coryton South 400kV. Substation	1096	2018	CA
WIW	West Isle of Wight Power Station 1	West of Isle of Wight 220/33kV. Substation	368	2018	AC
	West Isle of Wight Power Station 2	West Isle of Wight 220/33kV. Substation	368	2020	AC
	West Isle of Wight Power Station 3		368	2021	AC
PPS	Progress Power Station	Eye 400kV. Substation	299	2019	AC
TLB	Tilbury C	Tilbury 400kV. Substation	1800	2019	AC
KLB	Kings Lynn B	Kings Lynn B 400kV. Substation	981	2020	CA
SZC	Sizewell C	Sizewell North 400kV. Substation	1670	2020	S
	Sizewell C	Sizewell North 400kV. Substation	1670	2021	S
BWB	Bradwell B	Bradwell 400kV. Substation	1670	2021	S
		Total MW	**20563**		
IC6	ElecLink	Sellindge 400kV. Substation	1000	2016	AC
IC7	Belgium Interconnector (Nemo)	Ricborough 400kV. Substation	1000	2018	AC
IC8	IFA2 Interconnector	Chilling 400kV. Substation	1000	2019	S
		Total MW	**3000**		

6
Current connected generation

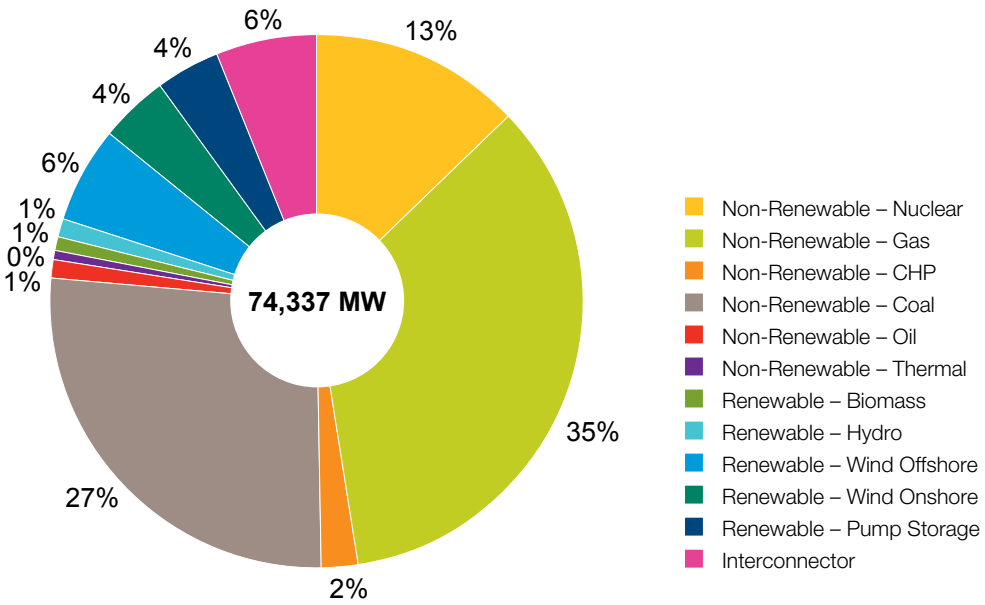
The data in the table below shows a summary by fuel type of the amount of generation already connected to the NETS.

Large CCGT plants make up a large proportion of non-renewable generation. Onshore and offshore wind is the main contributor towards current renewable generation with a continuing increase in connections allowing the total renewable capacity to increase to just under 16%.

Sum of MW connected generation

April 2015 Data	Fuel Type	MW
Non-Renewable	Nuclear	9937
	Gas	26207
	CHP	1717
	Coal	19762
	Oil	800
	Thermal	94
Non-Renewable Total		**58517**
Renewable	Biomass	440
	Hydro	1031
	Wind Offshore	4328
	Wind Onshore	2908
	Pump Storage	2744
Renewable Total		**11451**
Interconnector		4369
Total		**74337**

The chart below shows the breakdown of current generation already connected by fuel type



The table below shows generation that has connected to the NETS in the last 6 months

Company	Project Name	Fuel Type	MW (TEC)	Connection Date
Vattenfall Wind Energy Ltd	Clashindaroch	Wind Onshore	37	23-Dec-14
E.ON Climate & Renewables UK Ltd	Humber Gateway Offshore Wind	Wind Offshore	220	30-Jan-15
	Total MW		**257**	

The table below shows existing generation that formally requested to change its contracted TEC (MW) up to and including 1 April 2015

Company	Project Name	Fuel Type	MW Connected	MW Change	MW Total	Effective Date
Uskmouth Power Company	Uskmouth	Coal	0	115	115	16-Feb-2015
Gwynt Y Mor Offshore Wind Farm Ltd	Gwynt Y Mor Offshore Wind Farm	Wind Offshore	565	9	574	17-Feb-2015
Centrica Barry Ltd	Barry Power Station	CCGT	142	93	235	01-Apr-2015
Scottish Power Renewables (UK) Ltd	Harestanes	Wind Onshore	126	20	146	01-Apr-2015
Centrica Brigg Ltd	Brigg	CCGT	155	-56	99	01-Apr-2015
Deeside Power Development Co Ltd	Deeside	CCGT	515	-255	260	01-Apr-2015
Keadby Generation Ltd	Ferrybridge C	Coal	1014	-34	980	01-Apr-2015
Keadby Generation Ltd	Fiddlers Ferry	Coal	1987	-34	1953	01-Apr-2015
E.ON UK plc	Grain	CCGT	1524	-7	1517	01-Apr-2015
SSE Generation Ltd	Hadyard Hill	Wind Onshore	117	-17	100	01-Apr-2015
E.ON UK plc	Ironbridge	Biomass	680	-295	385	01-Apr-2015
E.ON UK plc	Killingholme	CCGT	900	-900	0	01-Apr-2015
Centrica Generation Ltd	Killingholme 2	CCGT	665	-665	0	01-Apr-2015
Rugeley Power Ltd	Rugeley	Coal	1018	-38	980	01-Apr-2015
Humber Power Ltd	South Humber Bank	CCGT	1285	-745	540	01-Apr-2015
	Total MW			**-2809**		

The table below shows existing generation that has formally requested to change its contracted TEC (MW) position from 1 April 2015

Company	Project Name	Fuel Type	MW Connected	MW Change	MW Total	Effective Date
Clyde Wind Farm (Scotland) Ltd	Clyde North	Wind Onshore	221	154	375	31-Oct-2015
Centrica Barry Ltd	Barry Power Station	CCGT	235	-136	99	01-Apr-2016
EDF Energy Nuclear Generation Ltd	Hinkley Point B	Nuclear	1261	-200	1061	01-Apr-2016
E.ON UK plc	Ironbridge	Biomass	385	-385	0	01-Apr-2016
Centrica RPS Ltd	Roosecote	CCGT	99	-99	0	01-Apr-2016
Crystal Rig II Ltd	Crystal Rig 2	Wind Onshore	138	62	200	01-Apr-2016
Sembcorp Utilities (UK) Ltd	Wilton	CCGT	99	42	141	01-Apr-2016
Moyle Interconnector Limited	Auchencrosh (interconnector CCT)	Interconnector	295	-215	80	10-Nov-2017
Coryton Energy Company Ltd	Coryton	CCGT	800	-96	704	01-Oct-2018
	Total MW			**-874**		

7
Embedded generation

The information contained within this section has been taken from the Embedded Generation Register.

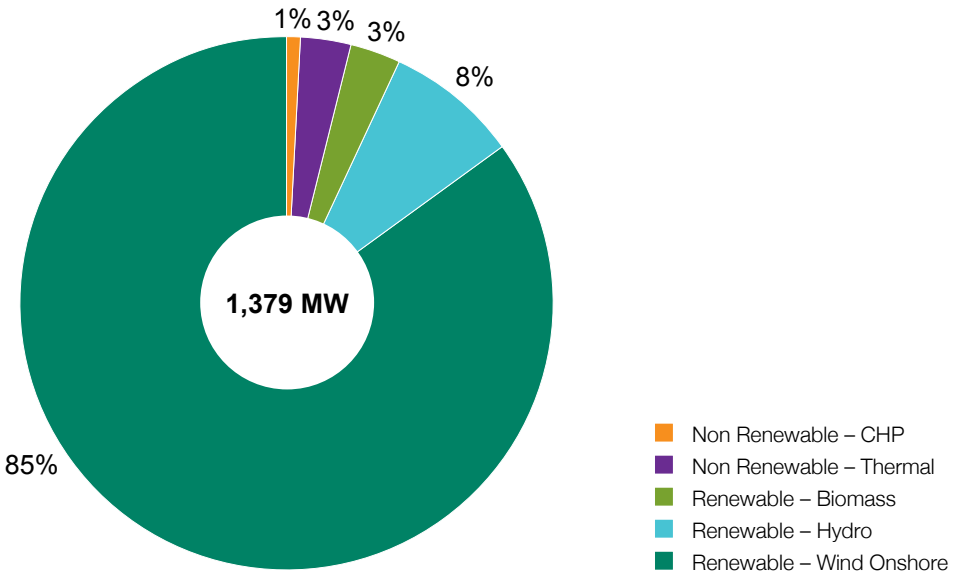
This register contains projects that National Grid Electricity Transmission plc has been made aware of through either: a Connection Application, or the Statement of Works process. As a result of their connection into a Distribution Network they have been deemed to also have an impact on the NETS.

You can access the register via the following link: http://www2.nationalgrid.com/UK/Services/Electricity-connections/Industry-products/Embedded-Generation-Register/

The data in the table below shows a summary by fuel type of the amount of embedded generation already connected to a Distribution Network.

Sum of MW connected embedded generation

April 2015 Data	Fuel Type	MW
Non-Renewable	CHP	12
	Thermal	38
Non-Renewable Total		**50**
Renewable	Biomass	45
	Hydro	108
	Wind Onshore	1175
Renewable Total		**1329**
Total		**1379**



Contracted future renewable and non-renewable embedded generation to 2022

April 2015 Data	Capacity (MW)	Fuel Type	MW
Non-Renewable	10	CHP	10
Renewable	717	Biomass	11
		Tidal	53
		Wave	3
		Wind Onshore	694
		Hydro	139
		PV Array	37
Total	**727**		**947**

8
Useful information

Acronyms

This table defines the acronyms used throughout this report and other National Grid publications. Where applicable a link is provided to more information.

Acronym	Definition	More Information
CCGT	Combined Cycle Gas Turbine	
CCS	Carbon Capture Storage	
CHP	Combined Heat and Power	
CUSC	Connection Use of System Code	
DECC	Department of Energy and Climate Change	
GW	Gigawatt	1 GW = 1000 Megawatts
kV.	Kilovolt	1 kV. = 1000 volts
MW	Megawatt	1 MW = 1000 Kilowatts
NETS	National Electricity Transmission System	
OFGEM	Office of Gas and Electricity Markets	
TEC	Transmission Entry Capacity	

Useful information links:

For electricity transmission connections (including applications, customer seminars and the compliance process)
http://www2.nationalgrid.com/UK/Services/Electricity-connections/

For TEC Register, Interconnector Register and Embedded Generation Register
http://www2.nationalgrid.com/UK/Services/Electricity-connections/Industry-products/

For the Electricity Ten Year Statement and System Operability Framework
http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/

For Future Energy Scenarios
http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/Future-Energy-Scenarios/

For electricity codes, standards and related documents (including the CUSC and Grid Code)
http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/

For electricity transmission charges
http://www2.nationalgrid.com/UK/Industry-information/System-charges/Electricity-transmission-Charges/

For European energy topics
http://www2.nationalgrid.com/UK/Industry-information/Europe/

For DECC
https://www.gov.uk/government/organisations/department-of-energy-climate-change

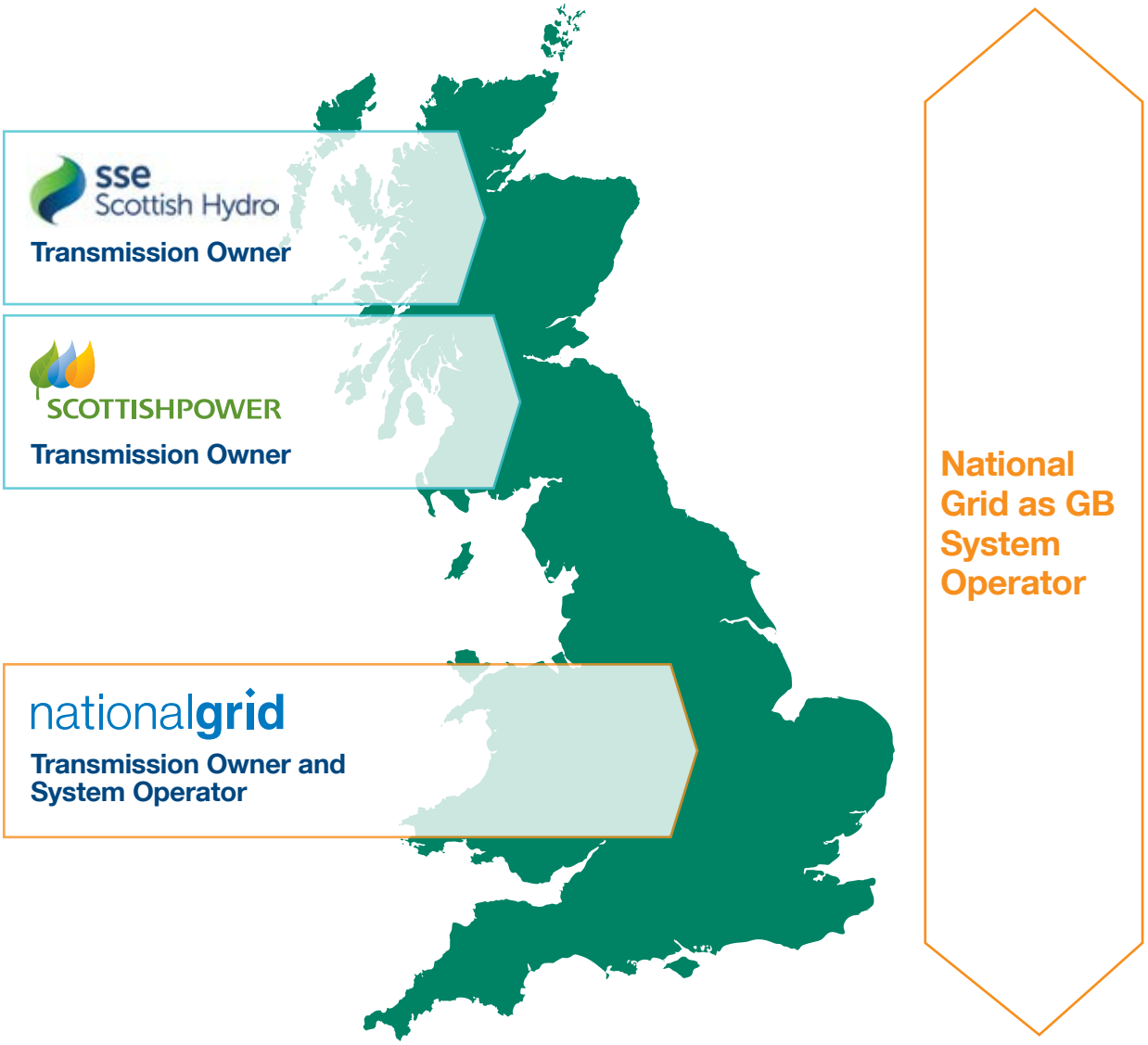
For Ofgem
https://www.ofgem.gov.uk/

For National Grid Electricity Transmission plc
http://www2.nationalgrid.com/

For Scottish Hydro Electric Transmission plc
http://sse.com/whatwedo/networks/electricitytransmission/

For Scottish Power Transmission Ltd
http://www.spenergynetworks.co.uk/pages/home.asp

The GB Electricity Transmission System



For further guidance about connection to the National Grid Transmission System please contact us, or visit our website.

If you have a general query or are unsure who to contact, you can email us at transmissionconnections @nationalgrid.com

You can also call our customer service team on +44 (0)1926 654634 between 8am – 5pm, Monday to Friday.

The information used to compile this document is based on data and maps provided by National Grid Electricity Transmission plc and the two Scottish transmission licensees, Scottish Power Transmission Ltd (SPT) and Scottish Hydro-Electric Transmission plc (SHE), and data from users of the GB transmission system. The document should not be regarded as an indicator of the performance and prospects of National Grid or any other party.

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National Grid plc
1–3 Strand, London
WC2N 5EH United Kingdom
Registered in England and Wales
No. 4031152

www.nationalgrid.com