

Wales wind capacity:

Update to the 'Energy Generation Wales 2016 Report': Data from RenewableUK at February 2018

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Geoffrey Sinclair

Environment Information Services, Glebe House, Martletwy, Narberth, Pembrokeshire
SA67 8AS



The Welsh Government (WG) report '*Energy Generation in Wales*' published in 2017, contains summary totals for both onshore and offshore wind capacity, and estimates '*up to the end of 2016*'. This is helpful, but an up-to-date and comprehensive database is compiled by the trade organisation RenewableUK <http://www.renewableuk.com/page/UKWEDSearch>

ONSHORE WIND

The WG report [p6] cites 867 operational projects up to the end of 2016, and indicates a further selection of individual schemes which were either to be commissioned or under construction in 2017 [pp25-26]: a sub-set is provided for the Powys LPA, as having the largest number of projects (164) in Wales. A separate, but also selective, list of projects is contained in the publication Renewable Energy News Special Report in September 2017.

The UKWed data provides a case-by-case tabulation showing relevant details for each project. It is thus the most suitable basis for assessment. It records a greater total capacity for operational schemes (at least in part because of its later date) but a much smaller number of projects – implying that the WG data includes a great many very small installations below 100kW capacity. It also sets out a case-by-case list of 13 projects which are in the course of construction, and a further schedule of 53 schemes which have consent but not started, and which are included in these tables only for longer term context.

The relevant totals are set out below:

Onshore wind	Source	Number of projects	Total MW	TWh output *
Operational	Welsh Government to end of 2016 (all projects)	867	920.2	2.331
	UK Wed to Feb 2018 (projects of 100KW and over)	124	969.18	2.456
Under construction		13	160.63	0.407
Sum of above		137	1129.81	2.863
Consented **		[53]	[349.275]	[0.885]

* Output calculated at a capacity factor of 28.925% as used in the WG data

** Some, mainly small, consented historic schemes may not be constructed; however, three of the relatively recent consents - Llandinam repower, Brechfa Forest East, and Clocaenog Forest – account for 234MW, the latter stated in RE News to be due online in June 2018 – and even if since delayed may be in the initial stages of construction).

Comparable totals for Powys are as follows:

Onshore wind	Source	Number of projects	Total MW	TWh output *
Operational	Welsh Government to end of 2016 (all projects)	164	151	0.355
	UK Wed to Feb 2018 (projects of 100kW and over)	15	180.075	0.456
Under construction		1	13.8	0.035
Sum of above		16	193.875	0.491
Consented **		[2]	[141]	[0.357]

OFFSHORE WIND

The WG totals are corroborated by UKWed and require no updating or recalibration, as no installations allocated to Wales have been consented or constructed since 2015. The position is as set out in the report:

status	source	Number of projects	Total MW	TWh output
Operational	Welsh Government to end of 2016 = UKWed to Feb 2018	3	726	2.419

TOTAL OF ONSHORE AND OFFSHORE WIND

Onshore wind	Source	Number of projects	Total MW	TWh output
Operational	Welsh Government to end of 2016 (all projects)	870	1646.2	4.75
	UK Wed to Feb 2018 (projects of 100kW and over)	127	1695.18	4.875
Under construction		13	160.63	0.407
Sum of above		140	1855.81	5.282
Consented		[53]	[349.275]	[0.885]