

European developers boosted by Spanish solar surge

Top-list of utility-scale solar project developers

Just five years ago, Spain’s 5 GWac of utility-scale solar left it languishing below Germany, Japan and even the UK in the league table of top countries. It has now rocketed to number 4 with over 20 GWac installed, and is moving to bridge the gap to the ‘big three’ – China, USA and India.

European developers are taking advantage as shown in the latest list, published today by Wiki-Solar.

Rank		Project developer [a]	[c]	Operating		Change since 01-Jan-22		
				Plants	GWac [b]	Plants	GWac [b]	Rank
1		NextEra Energy [US] (Inc Florida Power & Light, Gulf Power and others)	Map	153	11.9	47	4.8	1
2		SPIC (State Power Investment) [CN] (Inc Huanghe Hydropower Developments, Shanghai Electric and others)	Map	156	11.4	3	0.6	35
3		ENEL [IT] (Inc ENEL Green Power, Endesa [ES], Codensa and others)	Map	101	7.7	36	3.3	2
4		Adani Green Energy [IN] (Inc SB Energy, Parampujya Solar Energy)	Map	69	7.0	6	2.0	6
5		Canadian Solar [CA] (Inc Recurrent Energy)	Map	231	6.3	15	1.2	25
6		First Solar [US]	Map	81	6.0	8	0.9	30
7		Engie [FR] (Inc SolaireDirect, SoCore Energy and others)	Map	228	5.1	37	1.3	21
8		AES Clean Energy [US] (Inc Main Street Power, sPower)	Map	176	4.7	52	2.1	4
9		Iberdrola Renewables [ES] (part of Iberdrola SA) (Inc Infigen, Avangrid Renewables)	Map	52	4.2	24	1.9	7
10		Shell [NL] (Inc Silicon Ranch, Savion and others)	Map	72	4.2	19	1.7	8
11		Tata Power [IN] (Inc Welspun Renewables, Northwest Energy and others)	Map	58	3.9	20	2.1	5
12		ACWA Power [SA] (49% owned by Silk Road Fund [CN])		13	3.9	3	2.5	3
13		ACME Solar [IN]	Map	70	3.8	5	1.1	26
14		Électricité de France [FR] (Inc EDF Energies Nouvelles, Photon Technologies [FR] and others)	Map	114	3.8	33	1.3	23
15		China Datang Corporation [CN]	Map	66	3.6	2	1.0	27
16		China Huaneng Group [CN]	Map	69	3.4	4	0.5	42
17		Lightsource BP [GB] (part owned by BP)	Map	134	3.4	24	1.4	19
18		Cypress Creek Renewables [US] (acquired by EQT Infrastructure [SE]) (Inc FLS Energy)	Map	260	3.4	25	0.9	32
19		Azure Power [IN]	Map	50	3.1	5	1.0	29
fTopPC_5105 Totals listed above:				2,153	100.8	368	31.4	
[a] These top 19 project developers account for 101-GWac, ~20% of the world total.								
[b] GWac total for projects over 4MWac; GWp figures typically ~25% higher								
[c] Hyperlinks to Wiki-Solar map of company's projects								
[d] Wiki-Solar database holds project developers for ~88% of projects so there will be some omissions from this list and figures for others may be understated by a factor of 1.1 on average								

Major Spanish utilities, Endesa and Iberdrola, are prominent developers of solar plants in their home market. This has helped ENEL, Endesa’s owner, to leap-frog to #3 in the league table. Independent indigenous developers such as X-Elio, Naturgy, OPDE, Solaria Energia and ACS Cobra have also benefitted from this explosive market growth – though they are lower down in the global list.

Other European players like Lightsource BP and Statkraft are also active in Spain. Inevitably, many of the top places in the world list are held by Chinese, American and Indian companies, because of the



much greater size of those markets. The only developer from outside these regions to reach the top-20 is Saudi Arabia's ACWA Power, thanks to a portfolio of very large projects in the Middle East.

Spain held top position in the world between 2007 and 2011 on the back of its generous feed-in tariff scheme. When this was controversially dismantled, the country slid down the table to #7 in 2017-18. It is now back up to #4 with a lot of clear water ahead of the chasing pack led by Germany.



Iberdrola's Francisco Pizarro project covers 10 sq.km in Cáceres. An Endesa project shows in the distance.

“The recent pace of deployment in Spain is sensational”, says Wiki-Solar founder Philip Wolfe; “and this is almost entirely unsubsidised projects – showing how competitive solar has become.”

T E X T E N D S

Notes for editors:

- [1] Full size versions of the lists of top developers and countries appear on the following pages.
- [2] Wiki-Solar defines ‘utility-scale solar’ as 4 MW_{AC} and above (≈5MW_P for PV; ≈ electricity for 1,500 households in Europe) see: <http://wiki-solar.org/data/glossary/utility-scale.html>.
- [3] Wiki-Solar is the leading authority on utility-scale solar with a database covering over 21,000 utility-scale solar projects, of which about three-quarters are operational. All figures in this release are based on the AC export rating of operational plants. Projects under development are not included until they have been commissioned.
- [4] Image credits: The aerial view is from Google Earth, using imagery from Airbus, CNES, Copernicus, Digital Globe, and Landsat.

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Wiki-Solar

Top project developers for utility-scale (4-MWac+) solar projects at Q3-2023

Rank	Project developer [a]	[c]	Operating		Change since 01-Jan-22		
			Plants	GWac [b]	Plants	GWac [b]	Rank
1	NextEra Energy [US] (Inc Florida Power & Light, Gulf Power and others)	Map	153	11.9	47	4.8	1
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[b] GWac total for projects over 4MWac; GWp figures typically ~25% higher

[c] Hyperlinks to Wiki-Solar map of company's projects

[d] Wiki-Solar database holds project developers for ~88% of projects so there will be some omissions from this list and figures for others may be understated by a factor of 1.1 on average



Wiki-Solar

Top countries for utility-scale (4-MWac+) solar projects at Q3-2023

Rank	Country [a,c]	Operating		Change since 01-Jan-22		
		Plants	GWac [b]	Plants	GWac [b]	Rank
1	China	3,965	185.0	202	41.5	1
2	United States	2,762	93.5	526	33.3	2
3	India	1,455	63.3	247	22.3	3
4	Spain	546	20.8	129	6.9	4
5	Germany	1,630	13.3	374	3.4	11
6	Australia	168	12.5	54	5.8	5
7	Japan	621	12.4	35	1.2	18
8	United Kingdom	1,087	11.0	170	3.9	9
fTopGC_3303 Totals listed above:		12,234	411.9	1,737	118.3	

[a] These top 8 countries account for 412-GWac, ~80% of the world total.

[b] GWac total for projects over 4MWac; GWp figures typically ~25% higher

[c] Blue underlined entries include hyperlink to Wiki-Solar map