Asia dominates as utility-scale solar developers add 50% in two years

The world's 27 leading utility-scale solar developers have installed nearly 50 GWac of new capacity in 2023-24. This represents 50% growth to the 100 GWac they held at the end of 2022.

China retains a huge lead with more utility-scale solar capacity than the next six countries combined. And with India at number 3 trying to close the gap, it is no surprise that Asian developers are rising up the table [see overleaf]. India's Tata Power has jumped 9 places to #7, and Saudi Arabian ACWA Power has also climbed into the top ten. NTPC of India has leapt into the top list for the first time, having recently established a separate renewables division.

Strong progress in the USA and Spain, in particular, has also boosted some American and European developers. NextEra Energy takes top spot for the first time, having increased its capacity by 74% since 2022 thanks to several new plants commissioned by its subsidiary Florida Power & Light. Its compatriot Invenergy enters the top list for the first time. Meanwhile Iberdrola has risen three places on the back of dynamic growth in its home market.

Developers with less domestic potential have to work internationally, if they are to achieve high ranking. A strong portfolio in the US and elsewhere lifted Lightsource BP several places. Meanwhile EDF, TotalEnergies and Baywa R.E. all advanced thanks to their international developments.

Many developers sell projects when they are operational, while others buy projects from others. The list of top owners [see page 3] therefore shows multinationals Like France's Engie and ENEL of Italy as more prominent participants.

"The average project size also gives an insight into geographic differences", says Wiki-Solar founder Philip Wolfe. "ACWA is developing mega-projects in Saudi Arabia and elsewhere with average capacity over 330-MW. For Chinese and Indian companies 100-MW is typical, whereas an average of 20- to 30-MW is not uncommon for European developers. I hope Wiki-Solar will continue to be able to reflect on these developments in the future."

Readers are reminded that Wiki-Solar measures capacity in MW_{AC} delivered to the grid, including only projects over $4MW_{AC}$. The installed capacities would be roughly 25% higher if measured by the DC solar array output in MW_{P} .

TEXT ENDS

Notes for editors:

- [1] The lists of top developers and plant owners are included on the following pages. These lists are published half-yearly, and this will continue <u>at least until the end of 2025</u>.
- [2] Wiki-Solar defines utility-scale solar as 4 MW_{AC} and above.
- [3] Wiki-Solar is the leading authority on utility-scale solar with a database covering over 25,000 utility-scale solar projects, of which about three-quarters are operational. All figures herein are based on the AC export rating of operational plants. Projects under development are excluded until they have been commissioned.

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Wiki-Solar

Top project developers for utility-scale (4-MWac+) solar projects at Q3-2024

		Operating		erating	Change since 01-Jan-23		
Rank	Project developer [a]	[c]	Plants	GWac [b]	Plants G	Wac [b]	Rank
1	NextEra Energy [US] (Inc Florida Power & Light, DG New York and others)	<u>Map</u>	183	14.6	64	6.2	1
2	SPIC (State Power Investment) [CN] (Inc Huanghe Hydropower Developments, Shanghai Electric and others)	<u>Map</u>	158	11.6	3	0.4	47
3	ENEL [IT] (Inc ENEL Green Power, Codensa and others)	<u>Map</u>	108	8.2	26	2.5	8
4	Adani Green Energy [IN] (Inc SB Energy, Parampujya Solar Energy)	<u>Map</u>	72	8.1	9	2.6	5
5	Canadian Solar [CA] (Inc Recurrent Energy)	<u>Map</u>	228	7.3	13	2.0	14
6	First Solar [US]	<u>Map</u>	92	6.6	14	1.4	22
7	Tata Power [IN] (Inc Welspun Renewables, Northwest Energy and others)	<u>Map</u>	62	5.8	16	2.9	3
8	Shell [NL] (Inc Silicon Ranch, Savion and others)	<u>Map</u>	84	5.7	20	1.9	15
9	ACWA Power [SA] (49% owned by Silk Road Fund [CN])		17	5.7	4	2.6	6
10	Iberdrola Renewables [ES] (part of Iberdrola SA) (Inc Infigen, Avangrid Renewables)	<u>Map</u>	64	5.5	26	2.5	7
11	Engie [FR] (Inc SolaireDirect, SoCore Energy and others)	<u>Map</u>	237	5.4	30	0.9	34
12	AES Clean Energy [US] (Inc Main Street Power, sPower)	<u>Map</u>	168	5.1	37	2.2	10
13	Lightsource BP [GB] (part owned by BP)	<u>Map</u>	150	4.7	30	2.2	12
14	JinkoSolar [CN]	<u>Map</u>	33	4.6	3	2.3	9
15	Électricité de France [FR] (Inc EDF Energies Nouvelles, Photon Technologies [FR] and others)	<u>Map</u>	130	4.5	32	1.7	16
16	ACME Solar [IN]	<u>Map</u>	70	4.4	6	1.5	20
17	National Thermal Power Corporation [IN] (Inc NTPC Renewable Energy)	<u>Map</u>	28	4.2	11	3.1	2
18	China Three Gorges New Energy [CN]	<u>Map</u>	50	4.2	3	1.3	24
19	CGN Solar Energy Development [CN] (part of CGN)	<u>Map</u>	48	3.8	2	0.4	46
20	China Huaneng Group [CN]	<u>Map</u>	73	3.7	6	0.4	44
21	China Datang Corporation [CN]	<u>Map</u>	66	3.7	0	0.0	
22	Cypress Creek Renewables [US] (acquired by EQT Infrastructure [SE]) (Inc FLS Energy)	<u>Map</u>	260	3.5	18	0.7	38
23	ReNew Power [IN]		29	3.4	5	0.9	33
24	TotalEnergies [FR] (Inc Quadran Energie, Total Solar and others)	<u>Map</u>	94	3.2	24	1.3	23
25	Invenergy Services [US]	Map	28	3.2	10	1.4	21
26	Azure Power [IN]	<u>Map</u>	51	3.1	3	0.4	45
27	BayWa r.e. [DE] (Inc GroenLeven)	<u>Map</u>	155	3.0	36	0.9	31
fTopF	PC_5105 Totals listed	above:	2,738	146.7	451	46.8	

[a] These top 27 project developers account for 147-GWac, ~21% 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 ~74% of projects so there will be some omissions from this list and figures for others may be understated by a factor of 1.3 on average

Wiki-Solar

Top plant owner / IPPs for utility-scale (4-MWac+) solar projects at Q3-2024

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			Ope	erating	Change s	Since 01-J	an-23		
Rank	Plant owner / IPP [a]	[c]	Plants	Gwac [b]	Plants G	wac [b]	Rank		
1	SPIC (State Power Investment) [CN] (Inc Huanghe Hydropower Developments, Shanghai Electric and others)	<u>Map</u>	255	15.0	13	2.3	4		
2	NextEra Energy [US] (Inc Florida Power & Light, Gulf Power and others)	<u>Map</u>	131	10.8	17	2.5	1		
3	Engie [FR] (Inc SolaireDirect, SoCore Energy and others)	<u>Map</u>	283	7.9	48	2.3	3		
4	ENEL [IT] (Inc ENEL Green Power, ENEL Green Power España and others)	<u>Map</u>	89	7.6	16	2.2	6		
5	China Three Gorges New Energy [CN]	<u>Map</u>	100	6.9	7	1.7	8		
6	Adani Green Energy [IN] (Inc SB Energy, Parampujya Solar Energy)	Map	74	6.5	5	1.2	11		
7	China Huaneng Group [CN]	<u>Map</u>	141	6.0	11	1.1	15		
8	AES Clean Energy [US] (Inc Main Street Power, sPower)	Map	191	5.8	39	2.4	2		
9	CGN Solar Energy Development [CN] (part of CGN)	<u>Map</u>	90	4.7	4	0.6	30		
10	National Thermal Power Corporation [IN]	<u>Map</u>	33	4.3	12	2.3	5		
11	Électricité de France [FR] (Inc EDF Energies Nouvelles, EDF Renewable Energy)	<u>Map</u>	90	4.1	14	1.4	10		
12	Iberdrola SA [ES] (Inc Iberdrola Renewables, ScottishPower Renewables and others)	<u>Map</u>	37	4.0	17	1.5	9		
13	Deriva Energy [US] (formerly Duke Energy)	<u>Map</u>	94	3.9	9	0.7	27		
14	ACWA Power [SA] (49% owned by Silk Road Fund [CN])		19	3.8	2	1.1	16		
15	Dominion Energy [US]	<u>Map</u>	94	3.8	8	0.4	35		
16	Huadian Power International [CN]	<u>Map</u>	85	3.7	0	0.0			
17	China Datang Corporation [CN]	<u>Map</u>	80	3.6	2	0.3	40		
18	CECEP (China Energy Conservation and Environmental Protection Group) [CN] (Inc CECEP Solar Company)	<u>Map</u>	97	3.5	2	0.1	49		
19	D. E. Shaw Renewable Investments [US]	<u>Map</u>	53	3.4	9	0.9	20		
20	TotalEnergies [FR] (Inc Quadran Energie, EDEN Renewables India and others)	<u>Map</u>	43	3.3	9	2.0	7		
21	RWE Group [DE] (Inc Consolidated Edison, RWE Clean Energy and others)		54	3.0	7	0.4	36		
22	Lightsource BP [GB] (part owned by BP)	<u>Map</u>	174	3.0	12	0.7	29		
23	Azure Power [IN]	<u>Map</u>	50	2.8	0	0.0			
24	Shell [NL] (Inc Silicon Ranch, Sprng Energy and others)	<u>Map</u>	50	2.8	13	0.9	21		
25	JinkoSolar [CN]	<u>Map</u>	53	2.8	1	0.4	34		
26	Global Infrastructure Partners [US] (Inc Vena Energy, Energon Soleq)		56	2.8	1	0.1	45		
27	Neoen [FR] (part owned by Impala SAS)	Map	77	2.6	25	1.0	19		
28	ACME Solar [IN]	<u>Map</u>	44	2.6	4	0.8	23		
fTopF	PC_5101 Totals listed	above:	2,637	135.1	307	31.4			
[a] These top 28 plant owner / IPPs account for 135-GWac, ~19% 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 plant owner / IPPs for \sim 61% of projects so there will be some omissions from this list and figures for others may be understated by a factor of 1.7 on average