

Engineering multi-nationals pile into \$10bn utility solar market First Solar retains its lead; Europeans remain prominent

First Solar, the US-based solar module manufacturer and systems integrator, remains comfortably in first position in the list of the world's top solar power station builders, published today by wiki-solar.org. More than half of the companies in the list are European solar specialist EPC contractors, many of which have successfully diversified internationally, as their home markets have been squeezed. Notable newcomers include multi-national general engineering contractors, Bechtel and Fluor.

Utility-scale^[1] installations in 2013 now exceed 6 GWp, so the market is worth well over \$10bn. This is already a record, and the total is expected to top 8 GWp when the full year's commissioning data is available, compared to 5.6 GWp in 2012 and 3.6 GWp the year before.

The leading EPC contractors in terms of utility-scale solar experience are:

Solar power plant of 10MWp and over			
© Wiki-Solar.org		Cumulative total	
	Country	Plants	MWp
1	First Solar [US]	22	1,147
2	Juwi Solar [DE]	22	516
3	Bechtel [US]	3	498
4	Activ Solar [AT]	9	467
5	Q-Cells [DE] (now: Hanwha Q.Cells)	12	438
6	Enerparc [DE]	20	332
7	Quanta Power Generation [US]	6	217
8	Zachry [US]	1	181
9	SunEdison [US] (part of: MEMC)	8	180
10	Solarhybrid [DE] (now defunct)	5	176
11	Fluor [US]	2	171
12	Saferay [DE]	8	165
13	SunPower Corporation [US] (inc. Sunray Renewable)	7	153
14	Martifer [PT]	8	142
15	GP Joule [DE]	4	140
16	Belectric [DE]	5	134
17	Gehrlicher Solar [DE] (now part of: M+W Group)	6	131
18	Larsen & Toubro [IN]	8	124
19	Elecnor [ES]	6	119
20	Cupertino Electric [US]	5	103
21	Gestamp [ES]	4	102

EPC contractors with at least 100MWp of utility-scale experience ^[1]

“The entry of the big multi-nationals is a sign of this sector reaching maturity”, says Wiki-Solar founder Philip Wolfe; “a \$10bn market with 50% year-on-year growth is enough to get anyone’s attention. The

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specialist solar contractors can't rest on their laurels, and it's good to see traditional leaders like Juwi and SunEdison actively pursuing new market opportunities to keep them high on the list."

"The big multinationals have climbed the ranking tables fast, by focusing on the largest projects, like California Valley and Catalina (Bechtel), Mesquite (Zachry) and Arlington Valley (Fluor). They're not all new entrants, though; Fluor built the first multi-megawatt solar power station for Arco back in 1984 in Carrisa Plain – coincidentally on part of the site where First Solar is now building the 550 MW Topaz solar farm."

Wiki-Solar points out that Chinese companies are under-represented on the list.^[2] This is because separate EPC contractors are seldom announced for projects in China, and the role is often undertaken by the project developers' in-house construction team.

T E X T E N D S

Notes for editors:

[1] Wiki-Solar defined 'utility-scale' as projects of 10 MWp+, but is consulting on a possible change to 5MWp+; see:

<http://wiki-solar.org/data/glossary/utility-scale.html>

The MWp (megawatt peak) rating refers to the DC capacity of the solar array; see:

<http://wiki-solar.org/data/glossary/capacity.html>

Projects of 10MW have typical annual output equivalent to the consumption of 3,000 households in Europe.

[2] Of the 18.5 GWp of operating utility-scale plants on the Wiki-Solar Database, EPC contractors are listed against about 50%.

Though many owners, developers and contractors have validated Wiki-Solar's data, some is dependent on other published sources. Certain totals may be understated due to publication delays. Wiki-Solar updates its records continuously, with input from industry participants.

Philip Wolfe's book "Solar Photovoltaic Projects in the mainstream power market" was published by [Routledge](http://www.routledge.com) in October.

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