

SECTION 4. THE PLAYERS

This section of the report analyzes players in EPC for solar and wind in the US.

About this analysis

This section is based mostly on data gathered from companies' websites. Much of this analysis relies on linking firms to projects in our database, which contains nearly 3,000 wind and solar projects in the US at various stages of development. The information mapping projects to their EPCs is captured in our [Industry Intelligence](#) database, available to subscribers of our service.

There are a number of assumptions, caveats, and methodological points that are important to note in the context of this analysis; an Appendix at the end of this report identifies these.

4.1. LEAGUE TABLES

The charts below show the top EPC firms for solar and wind, ranked strictly in terms of historic activity – ie, this does not reflect any kind of qualitative assessment about firms' competencies.

- Top-ranked solar EPCs includes the three vertically-integrated giants – SunPower, First Solar, and SunEdison – and some EPC specialists, like Bechtel and Fluor, that have performed a small number of very large projects.
- The league tables for wind are headlined by Mortenson, IEA, RES Americas, and Blattner (with Blattner under-represented, as explained in the Appendix).

Figure 8: Top EPC firms for US utility-scale solar (GW of 'active' projects)

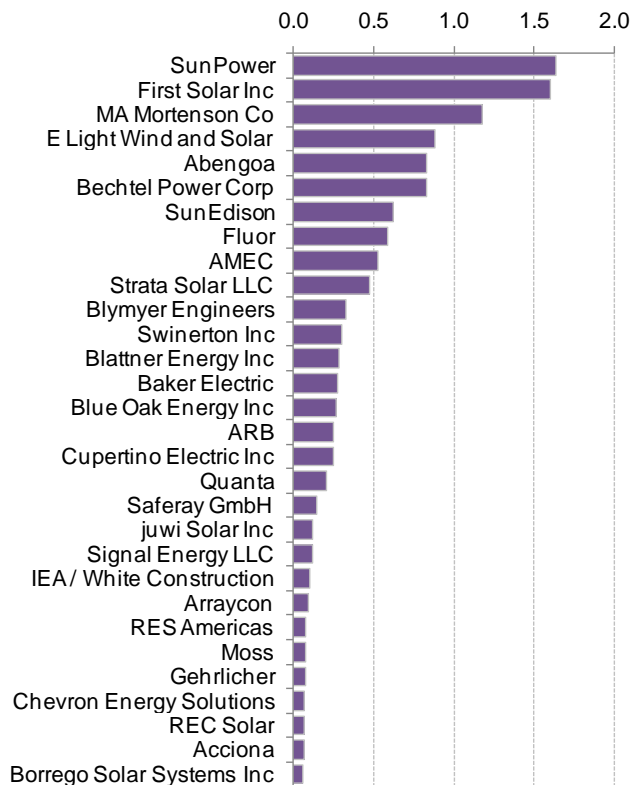
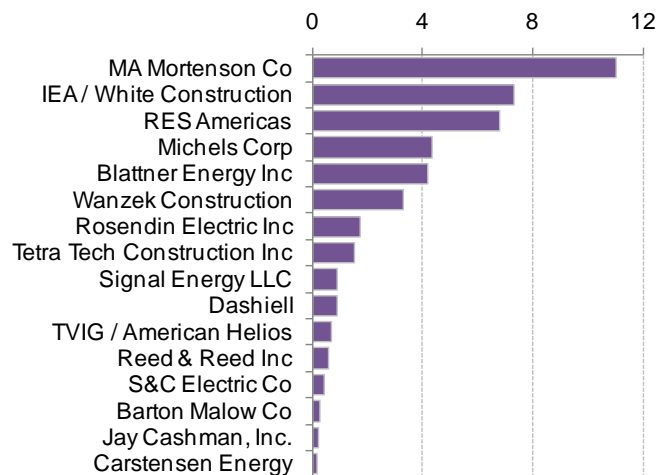


Figure 9: Top EPC firms for US wind (GW of 'active' projects)



Source: Bloomberg New Energy Finance, company websites. Notes: (1) 'Active projects' refers to projects that are in development or already operational; it excludes projects that have been abandoned. (2) See Appendix B: Methodology for analysis of EPC players.

Figure 10 and Figure 11 show league tables in terms of number of projects, rather than cumulative capacity as had been shown above. The three big solar players are again among the top (Figure 10), but so are players such as Strata specializing in smaller, 'repeatable' projects. For wind, rankings for capacity (Figure 9 above) and number of projects (Figure 11 below) are similar.

Figure 10: Top EPC firms for US utility-scale solar (number of 'active' projects)

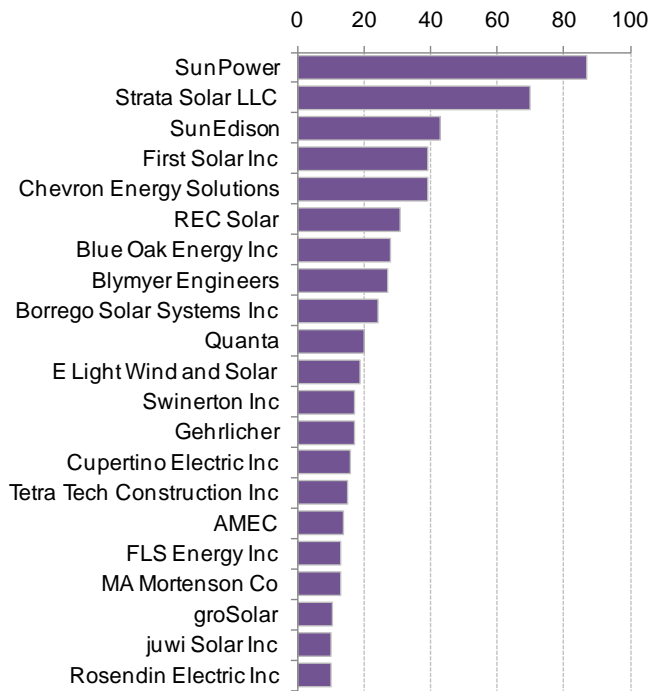
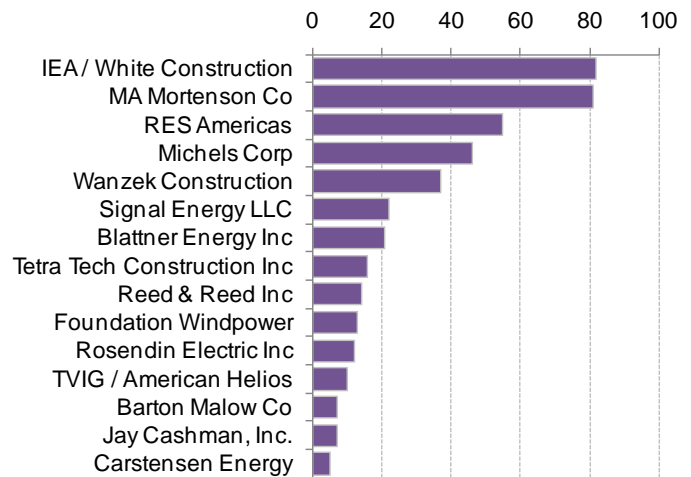


Figure 11: Top EPC firms for US wind (number of 'active' projects)



Source: Bloomberg New Energy Finance, company websites. Notes: (1) 'Active projects' refers to projects that are in development or already operational; it excludes projects that have been abandoned. (2) See Appendix B: Methodology for analysis of EPC players.

Table 1: Commercial-scale PV activity by selected EPCs

EPC	Capacity (MW)
REC Solar	29.3
Borrego	10.4
RGS Energy	6.5
Blue Oak	6.5
Baker Electric	6.0
Quanta	6.0
groSolar	5.0
Cupertino Electric	4.9

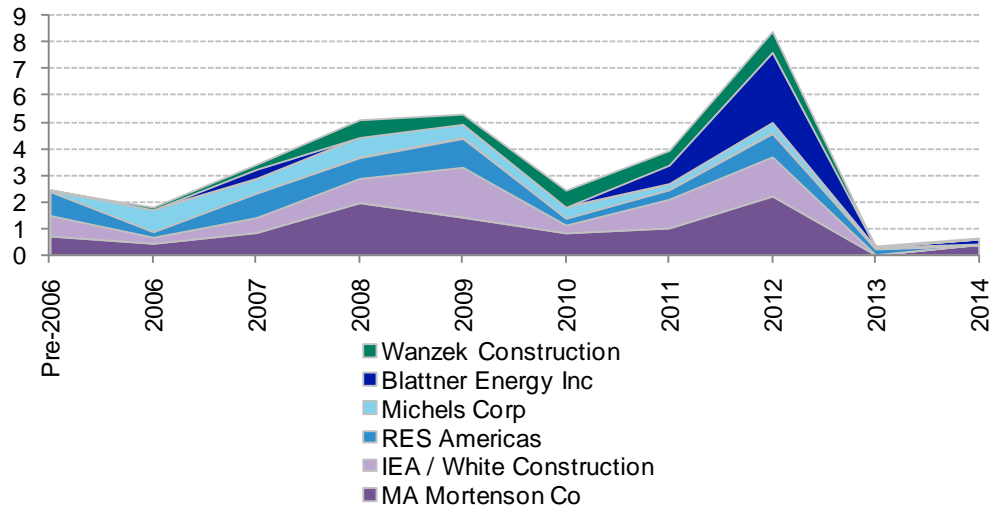
Source: Company websites. Notes: (1) 'Capacity' is sum of disclosed projects on website. (2) RGS was Real Goods Solar.

For our analysis, we have treated any project above 1MW as utility-scale – but in practice, very small utility-scale projects often tend to fit into the portfolios of EPCs that are focused on commercial-scale opportunities. Table 1 at left shows the disclosed commercial-scale PV activity of selected EPC firms that have extensive experience in this market.

EPC activity for commercial-scale PV is more extensive than what we have depicted in this analysis, as we have focused our attention on the utility-scale market. For example, the capacity values shown in this table are based on a bottom-up approach (we only show the sum of the projects which the companies have specifically identified on their websites), but SolarCity – not shown here, since they do not reveal project-by-project details – has installed 241MW of commercial-scale PV.

Figure 8 and Figure 9 above showed 'static' league tables – a snapshot of rankings of the biggest players based on all commissioned and in-development projects cumulatively. Figure 12 below shows year-by-year activity for the top six players in wind. The striking characteristic here is not any single player's rise and fall but rather the jaggedness of the industry results overall.

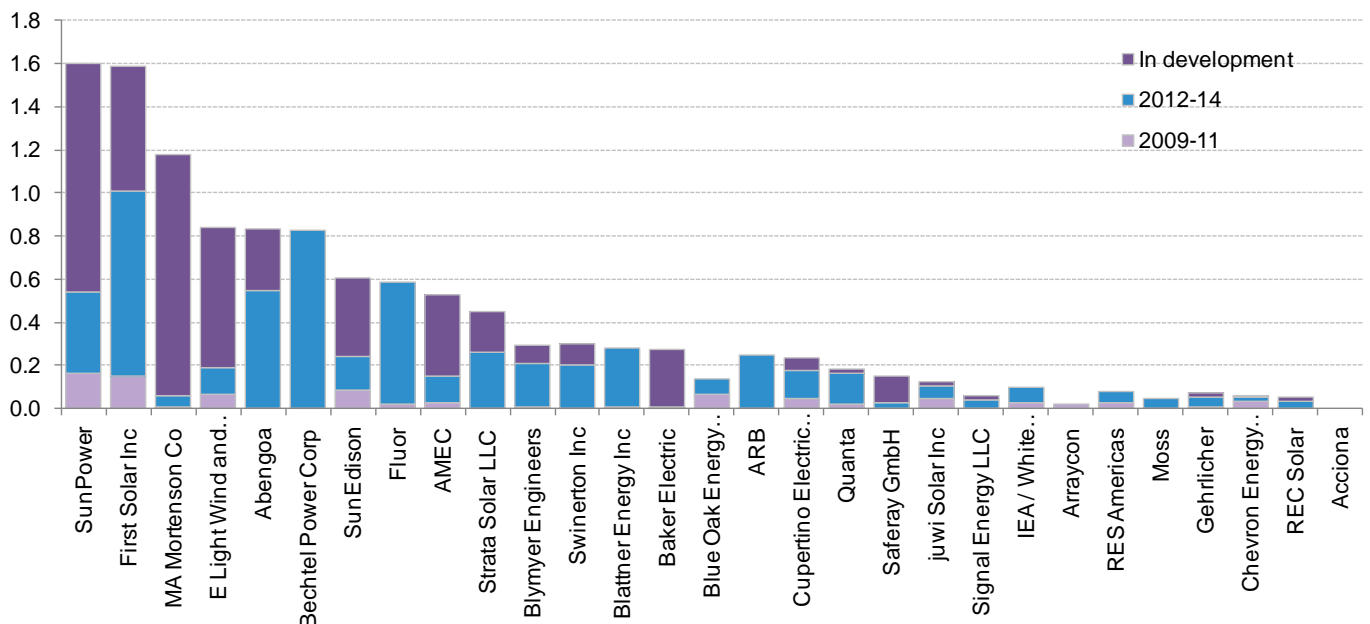
Figure 12: Commissioned capacity of top six US wind EPC firms by commissioning year, 2006 – 2014 year to date (GW)



Source: Bloomberg New Energy Finance, company websites. Notes: (1) Blattner activity is under-represented. (2) See Appendix B: Methodology for analysis of EPC players.

Figure 13 shows a time-weighted analysis for solar players.

Figure 13: Commissioned capacity and development pipeline for top US solar EPC firms by commissioning date or development status (GW)



Source: Bloomberg New Energy Finance, company websites. Notes: (1) Columns do not move monotonically down (ie, Blue Oak's is lower than ARB's) because some projects are not in our Industry Intelligence database, and excluded from this analysis (but those projects are included when we determine overall company activity, and this chart is sorted by that variable). (2) See Appendix B: Methodology for analysis of EPC players.

The top four firms in terms of overall solar activity have a vigorous pipeline, with hundreds of megawatts of projects in development. (Since EPC revenues are usually accrued as the project is completed, these firms have probably captured only some of the revenue associated with these engagements.) Other companies that are more heavily weighted towards capacity under