

Convert: New tracker design for reducing LCOE and LCA

Under the European Union's Horizon 2020 Project, GOPV, Convert is working on reducing the LCOE and LCA of large PV plants. In this vein, it has developed a new tracker and tracking strategy focused on the use of bifacial modules.

[Convert](#), a worldwide leading company in the manufacture and supply of single-axis trackers for PV systems, has always been focused on developing innovative solutions to obtain the most from solar radiation. This strategy has been confirmed and further focused with the entry of [Valmont Industries](#) into the share package of Convert as the majority shareholder, in August 2018.

Convert: goal

The final aim of this continuous innovation is to provide the market with new trackers in line with the development of the sector, which now sees, in the use of bifacial modules, a new, challenging opportunity.

Convert is currently committed to answering this challenge in a way that is satisfactory both from a technical and economic viewpoint; and which is in line with the current and expected trends in the cost of energy from PV, and from a point of continuous attention to the environment and saving of emissions.

Convert:next steps

Specifically, as partner of the European Union's Horizon 2020 Project GOPV (*Global Optimization of integrated PhotoVoltaic system for low electricity cost*– grant agreement No 792059), Convert is contributing by reducing the Levelized Cost of Energy (LCOE) and the Life Cycle Assessment (LCA) of large PV plants by:

- Introducing a new tracker design and tracking strategy focused on the use of bifacial modules;
- Decreasing tracker costs using Weathering Steel (W.S.) as a lower cost structural steel, lower energy requirements and CO2 emissions (8% to 12%); and
- Extending the service lifetime of trackers up to 35 years by improving existing knowhow / analytical models to predict the corrosion rate of selected Weathering Steel.

All these topics are currently the subject of analytical studies supported by experimental tests, which are devoted to improving the Convert proprietary know-how. They will continue throughout the duration of the GOPV project, in order to make developed know-how more solid and reliable.

Convert: prototype

On the basis of the initial results, a first “2 PV modules portrait” configuration prototype tracker has been developed and is now available for the market. It has the highest versatility with regard to the possibility of fixing PV modules with and without a frame. Moreover, it has a high elasticity in day-to-day tracking planning, thanks to a maximum tracking angle of 55° and dedicated new tracking software. The application of this tracker will be seen in the coming months, both as part of the GOPV projects, and under the first industrial contracts.

Convert: next appointment

Convert will be attending this year's [Intersolar Europe](#), with an immersive stand. Join us in Munich this May 15-17, Stand A3.514 to find out more.