



Ultra-high Performance Solar Tracker



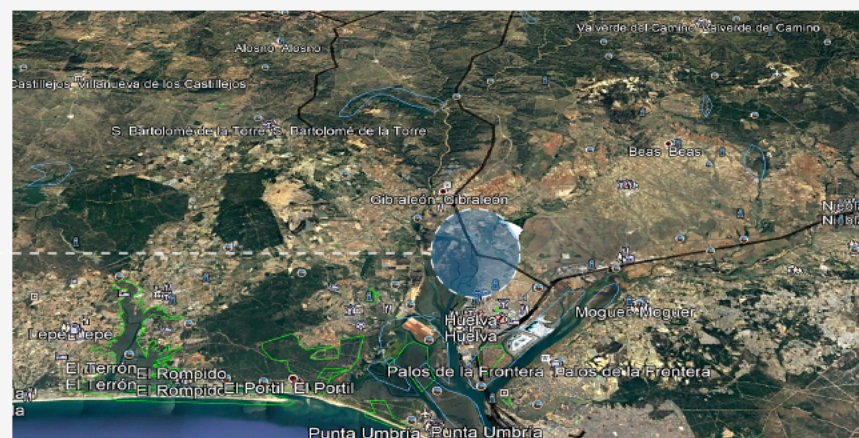
Huelva 2021 Project: Spain

- Location
Huelva, Spain
- Nominal Power
500 MW
- Project Type
Power Station
- Owners
Alter Energy
- EPC
Global Energy Services
- Product Offerings
Tracker Agile 500-1P
- COD
20006
- LCOE
Trinatracker LCOE: 0,0719
- From Delivery to Commissioning
6Months
- IRR
TrinaPro IRR: 10,14%

Project Information

The Huelva 2021 project located in the South-West of Spain represents a major milestone for the Trina Solar Group as it is the first project designed and developed with the AGILE Tracker technology.

The plant consists of monocrystalline solar photovoltaic modules with bifacial tracking structures and an output of 375 Wp, with a total supply volume of 50 MWp connected to central inverters and 12 transformer with 3630 KVA for grid connection. The self-powered TRINA TRACKER Agile with Zigbee communication is supplied with 24VDC Tracker Terminal Units (TCU).



On-site Photo Report



Engineering Challenges and Our Solutions

Challenge

The main challenge encountered in the engineering phase was the requirement to upgrade the tracker to meet the technical specifications related to ground slopes higher than the maximum design slope (5%). Therefore, the trackers had to be partially upgraded to compile with slopes up to 8%.

On the other hand, and due to geotechnical and geomorphological characteristics of the area where the project is located longer piles to guarantee the stability of the tracker foundation were required.

Solution

The engineering of the project was reviewed and modified, reinforcing some mechanical elements of the tracker, to guarantee the integrity of the structure with the conditions of the definitive topography of the project, in order to avoid the client having to carry out further earthworks.

Conclusion

TrinaTracker has developed this project taking into consideration multiples variables of the site such as mixed terrain, different slopes, climatology with heavy storms or a very tight project completion deadline.

As first project with the twin-row Agile 500-1P tracker different departments across the company including Pre- Sales team, Engineering Department, R&D and Project Fulfillment team have carried several workshops before and during the project. As a result of this work the project has been successfully deliver as well as set up the basis for other projects and internal procedures.



Additional Values to Customer

Customer Satisfaction

Thanks to our stakeholder management based on the company's Customer Centric value, we have been able to accompany and support the client through the project life-time, providing first-hand solutions to quickly resolve situations on site such as missing material, Logistic unexpected situations or resolution of technical questions at the assembly stage showing our full commitment to the project and the client as well as providing added value to our contractual obligations.

Cost Management

By quickly responding to the client when the initial conditions changed regarding the topography of the site, we were able to carry out a detailed engineering study in order to make a proposal to avoid the client additional groundworks. The agreed proposal helped the client saving significant extra costs whilst improving Sales Revenue for Trina.

Procurement Management

The project was initially delayed due to permitting issues and COVID-19 restrictions. However, and thanks to our experience with tracker components for both manufacturing at our own factory and management of external suppliers we supported the client by delivering the material several weeks before schedule in order to meet their project obligations.