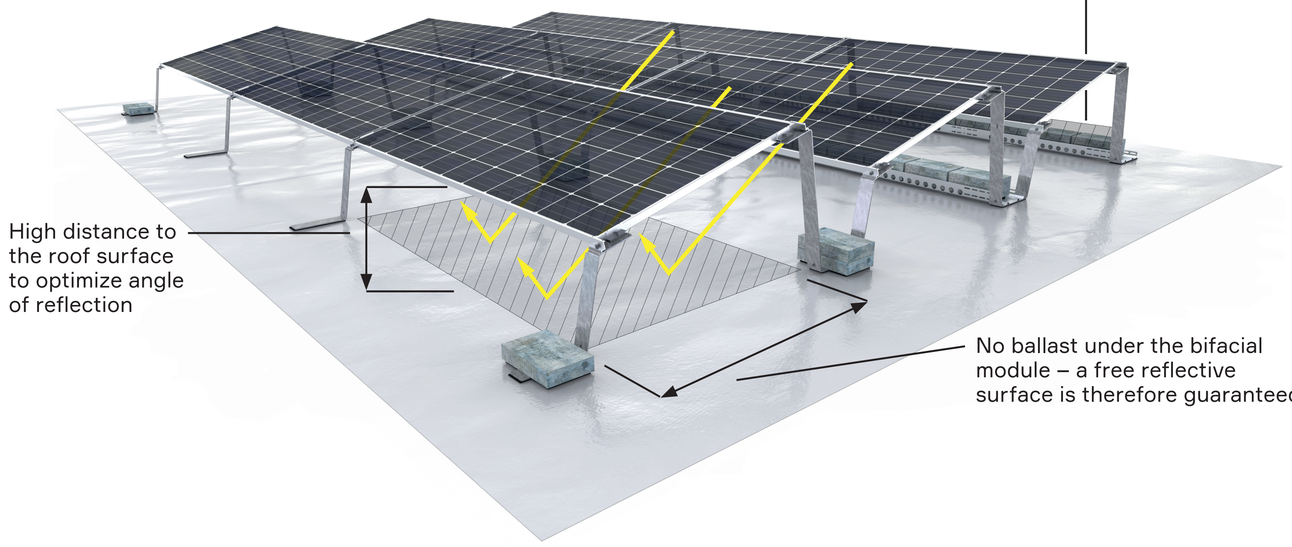
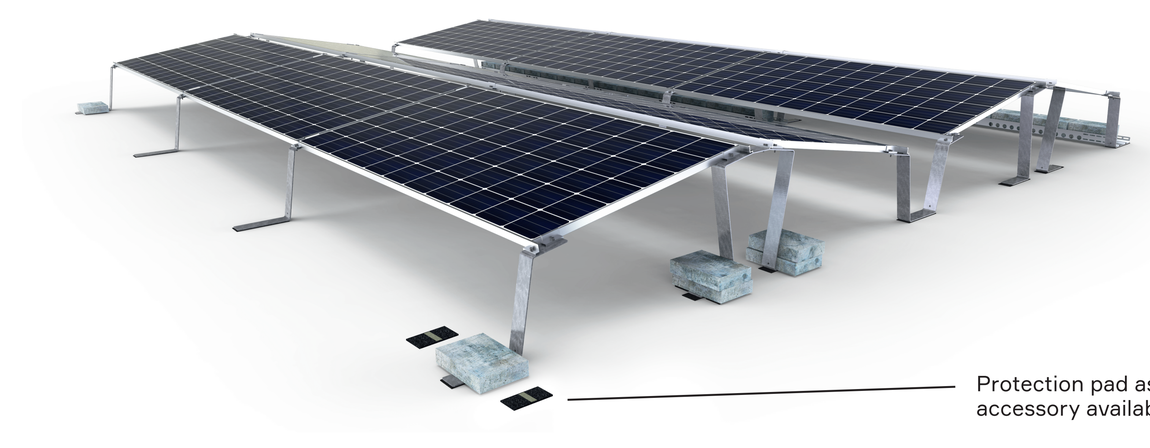
FLAT ROOF RACKING OPTIMIZED FOR BIFACIAL MODULES

With bifacial PV modules up to 20%* more yield

SOUTH-FACING



EAST/WEST-FACING

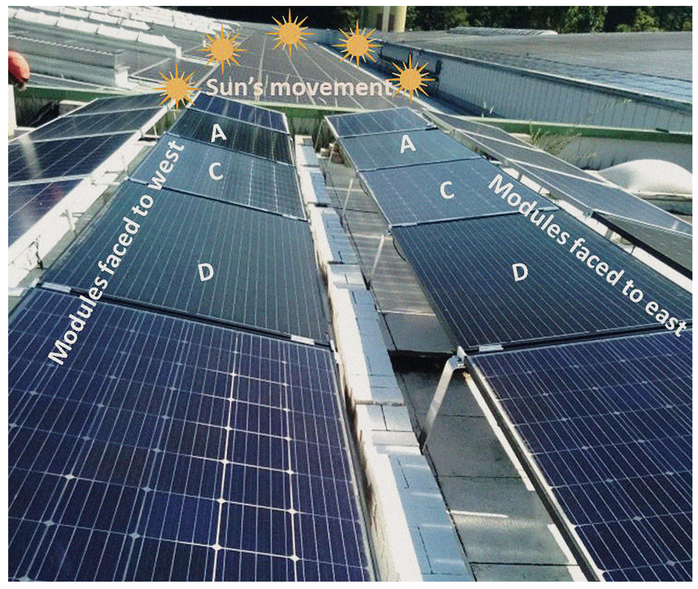


MORE YIELD

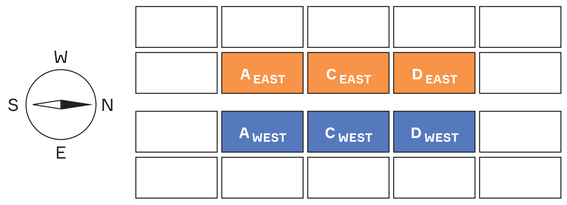
Bifacial solar panels on prepared industrial roofs are a viable way to boost the annual yield. Because of the strong influence of reflection, the yield of bifacial PV installations is difficult to predict. Therefore, six bifacial glass/clear-foil modules surrounded by 14 dummies were installed on a white-painted industrial flat roof.
The daily yield per module was monitored and analyzed over one year with an averaged benefit of the bifacial over the monofacial module of 15% to 20% for the East-West orientated panels.

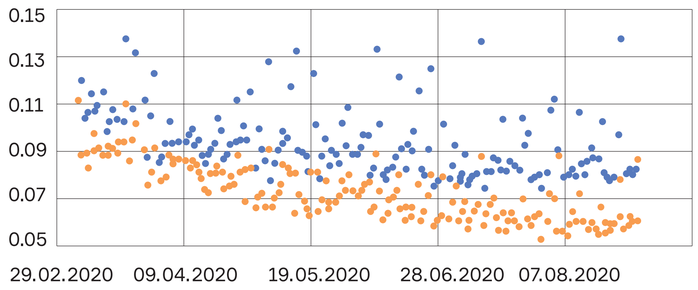
Bifacial modules increasingly replace traditional foil modules with minimal impact on cost. Our racking system is designed to allow an ideal light reflection path in combination with a white roof surface to optimally use the bifacial modules.

*Acknowledgement: According to W. Mühleisen et al. as part of the SOLAR-ERA.NET project „BI-FACE“ supported by the European Commission within the EU Framework Program for Research and Innovation HORIZON 2020



Module layout of the test setup





Ratio of back to front insolation measurements over time

Placement of irradiation sensors at front and back side of the test setup

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