

TOZZI

Upcoming Webinar



pv magazine group

Le nuove tecnologie fotovoltaiche bifacciali nel mercato fotovoltaico italiano

TUESDAY OCTOBER 29, 2019
4 PM - 5 PM (CET, ROME)

REGISTRATION
FREE OF CHARGE



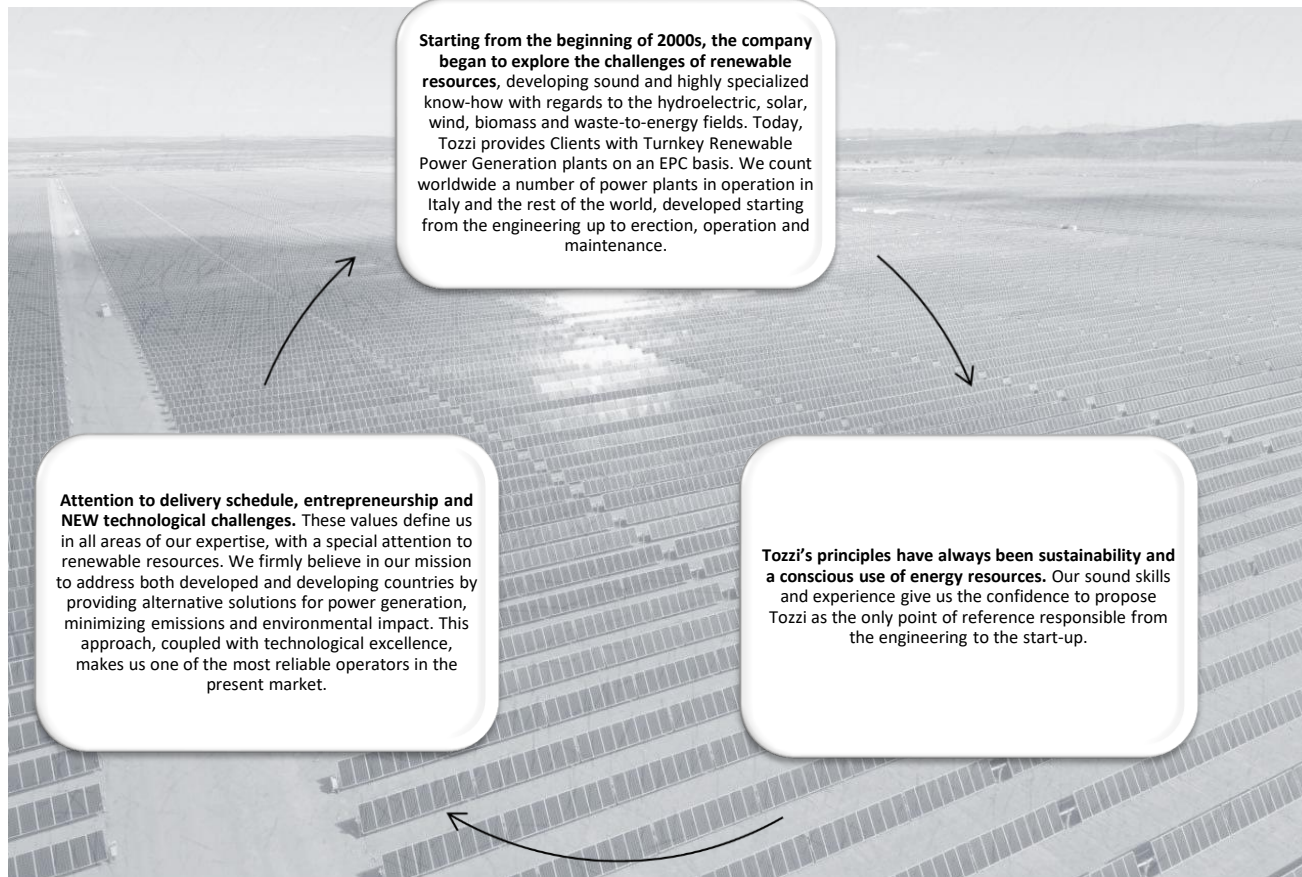
BIFACIAL PV PROJECTS TOZZI's experience

Cesare Bruno

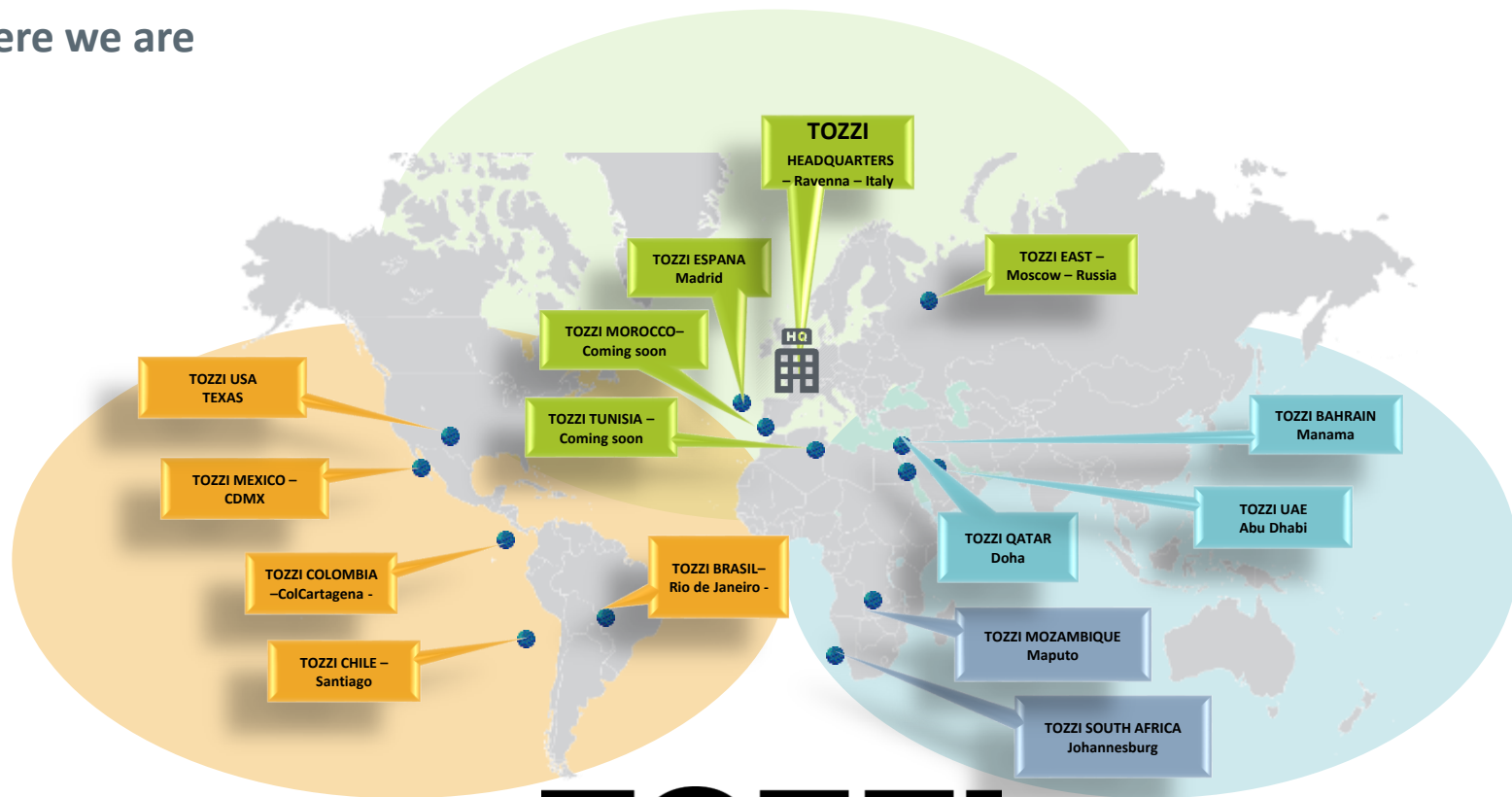
pv magazine: Le nuove tecnologie fotovoltaiche bifacciali nel mercato fotovoltaico italiano

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Who we are – EPC Renewables



Where we are

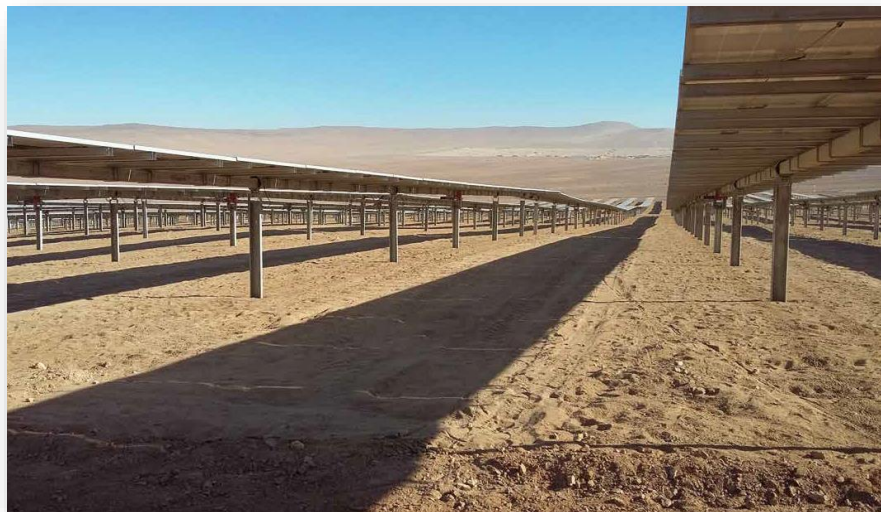


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EPC Renewables - Solar

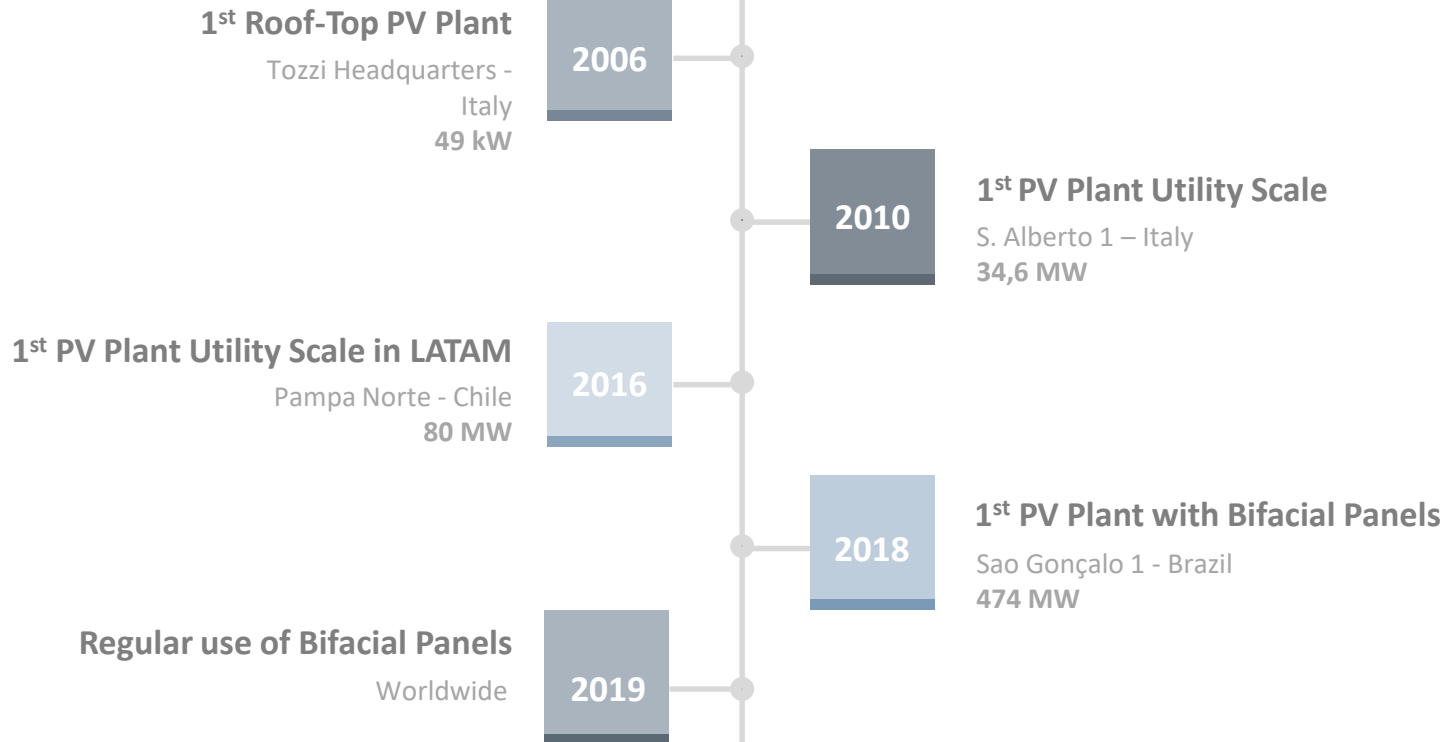
A strong tradition and expertise enables Tozzi to assist the Client from the design up to the start-up of solar plants (photovoltaic & CSP thermodynamic).

We provide timely support and assist you for the entire life of the plant with a reliable maintenance service.



Our Renewable Energy History

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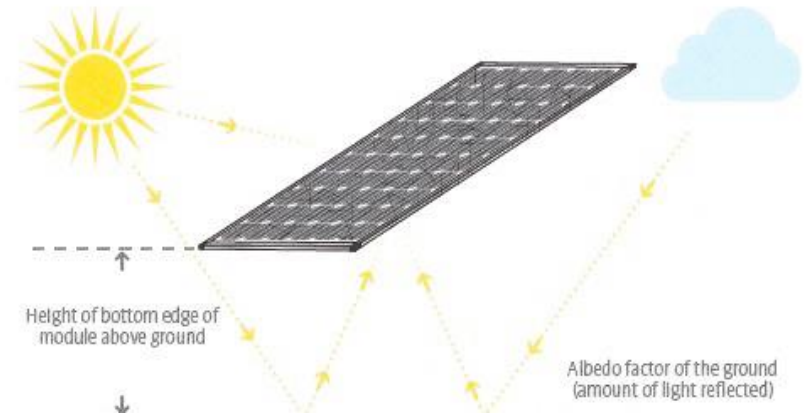
Bifacial PV Modules - Features

Bifacial PV Modules collect sunlight both from the front side and also on the rear side

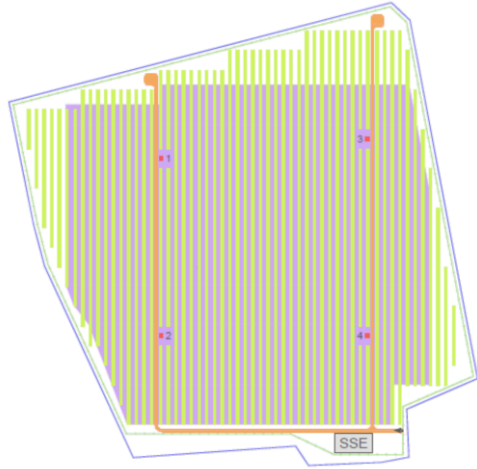
Thanks to this aspect, the energy gain can increase from 3 to 15%, keeping in mind that the actual yield increase depends on the reflectivity of the ground, installation tilt, height and so on.

The two main factors which affect the additional energy yield are: the light reflectance of the surface beneath the module and the tracker's leg height/pitch considered.

Direct or diffuse light is reflected from the ground, and a portion is scattered onto the rear cell of the module.



Bifacial: New perspectives for 20 MW PV plant design



Issues	Monofacial 380 Wp	Bifacial 450 Wp	
Peak power	20 MWp	20 MWp	
PV Modules	52,620	44,400	-16%
Trackers	877	740	-16%
Surface(ha)	33,933	28,991	-13%
PV Panel Inst.Cost	\$	\$	-16%
PV Panel Cleaning Cost	\$	\$	+40%
Solar Cables	146,000	123,000	-16%

- ✓ Lower GCR
- ✓ Less structure
- ✓ Less cable
- ✓ Better installation price

Monofacial vs. Bifacial – installation tips

No
difference as
regards the
installation
time.

Less quantity
of trackers to
be used.

Less kms of
solar cables
to be laid
and
connected.

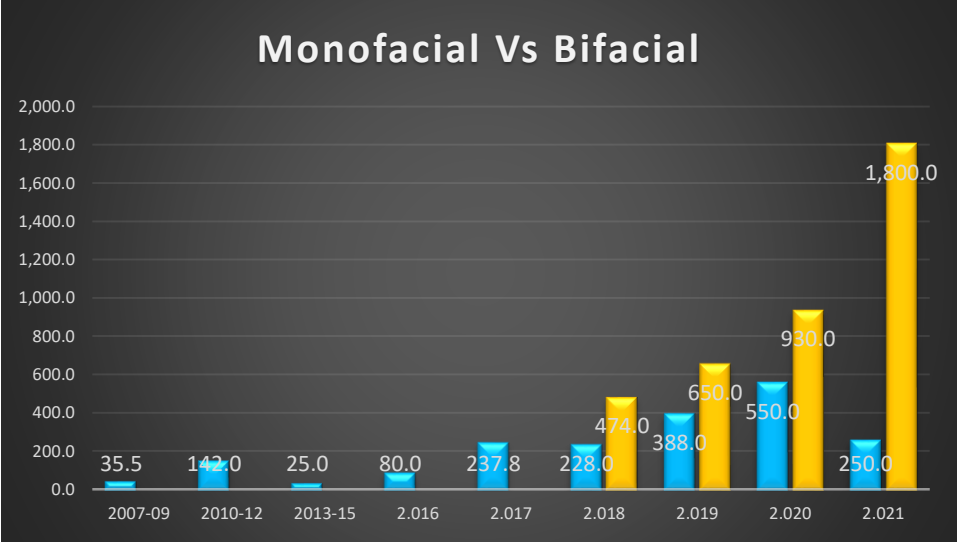
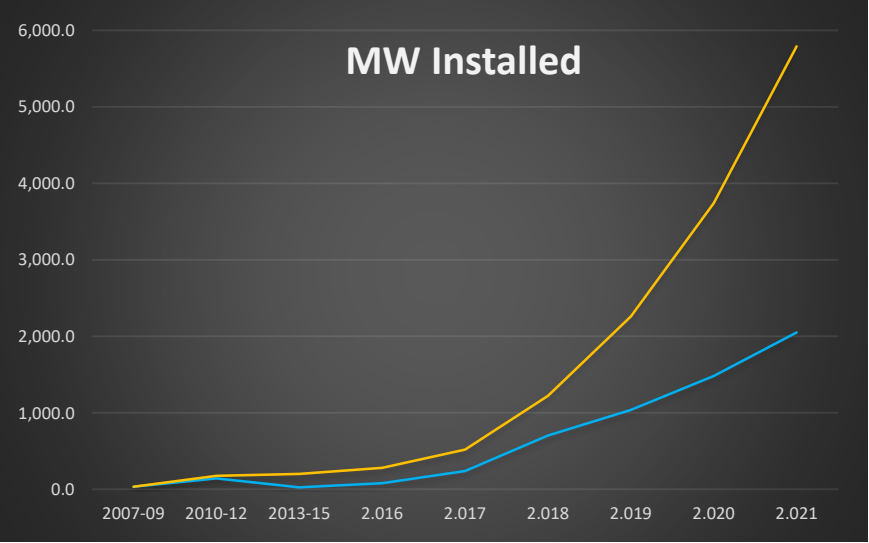


São Gonçalo PV Plant

Bifacial PV panels installation video



Monofacial vs Bifacial trend - MWp



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**THANK YOU
FOR YOUR ATTENTION.**

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