

5.52% Yield Gain of JinkoSolar's N-type Achieved in the World's Largest Hybrid Solar-Hydro Plant on the Tibetan Plateau

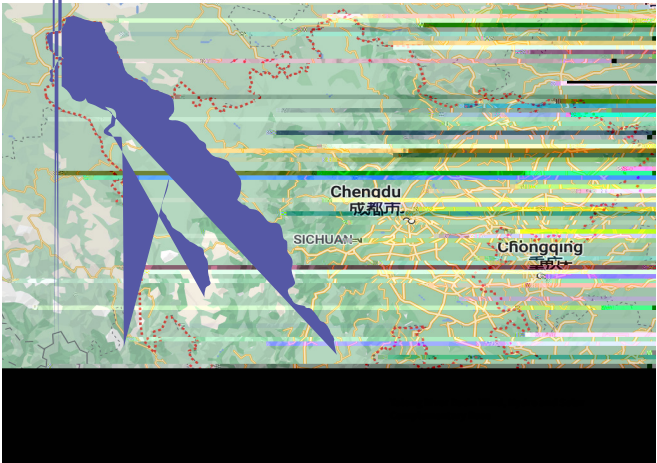
The world's largest hybrid solar-hydro power plant, with an installed capacity of 1 GW of solar panels and 3 GW of hydro-power generators, has begun producing electricity in the eastern Tibetan Plateau. Located in Kela town, Yajiang county, Ganzi prefecture, Sichuan, the plant's first phase is empowered by 287.4 MW of Jinkosolar's N-type TOPCon bifacial panels and was connected to the power grid at the end of June 2023. After the station's operation stabilized, a comparison study was conducted between N-type and P-type modules in the high-altitude area from July 15 to August 15 2023, in order to investigate their outdoor performance.

The study revealed a 5.52% yield gain of JinkoSolar's N-type TOPCon bifacial panels (570Wp) over P-type PERC bifacial panels (545Wp) in this massive project.

Situated at an altitude of 4,000 - 4,600 meters (15,000 feet) above sea level, on a mountain in Yajiang county (N29°56' 50.75", E100°37' 1.94"), Ganzi prefecture, Sichuan, the Kela solar-hydro power plant is the highest-altitude project of its kind in the world. It benefits from an annual average irradiation of 6434.8 MJ/m2.

Component Models	Total Power Generation (kWh)	Unit Power Generation (kWh/kW)	Relative Gain
N-Type 570Wp Bifacial	532046.15	137.55	5.52%
P-Type 545Wp Bifacial	471000.17	130.35	

Table 1: N-type and P-type module power generation ratio and comparison of yield gain



Pic.1:Project Location



of single-day power generation difference between N-type and P-type modules