

Competition on the Roof of the World

# Why HJT

## Leads the Ultimate Clash?

Huason Heterojunction

Full-scenario Solution | **03 Plateau**

Gonghe County, Qinghai Province of Northwest China, is located at an altitude of **3,150 meters**, with an average annual temperature of only **3.1°C**. The region is characterized by thin, dry air and sparse cloud cover, making it a typical plateau environment.

Gonghe County benefits from abundant sunlight year-round, receiving **2,900+hours** of sunshine annually and an average solar radiation of **6,564.26 MJ/m<sup>2</sup>**, providing an ideal environment for photovoltaic power.



# VS

## Top-tier & Unparalleled

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We evaluated the performance of the HJT 630 W, TOPCon 610 W, and BC 650 W modules (of equal size) across key metrics, including low-light efficiency, incident angle (IAM), and temperature coefficient, focusing on their impact on BOS costs, energy generation hours, and IRR.

### Installation Parameters

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Location: 100°38'E, 35°92'N

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Altitude: 3,150 m

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Annual Average Temperature: 3.1 °C

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Ground Condition: 0.21 of Surface Reflectance

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Array: Fixed-tilt Installation

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Bottom Edge Clearance: 0.5 m

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Minimum Electricity Rate: 3.1 USD Cents/kWh

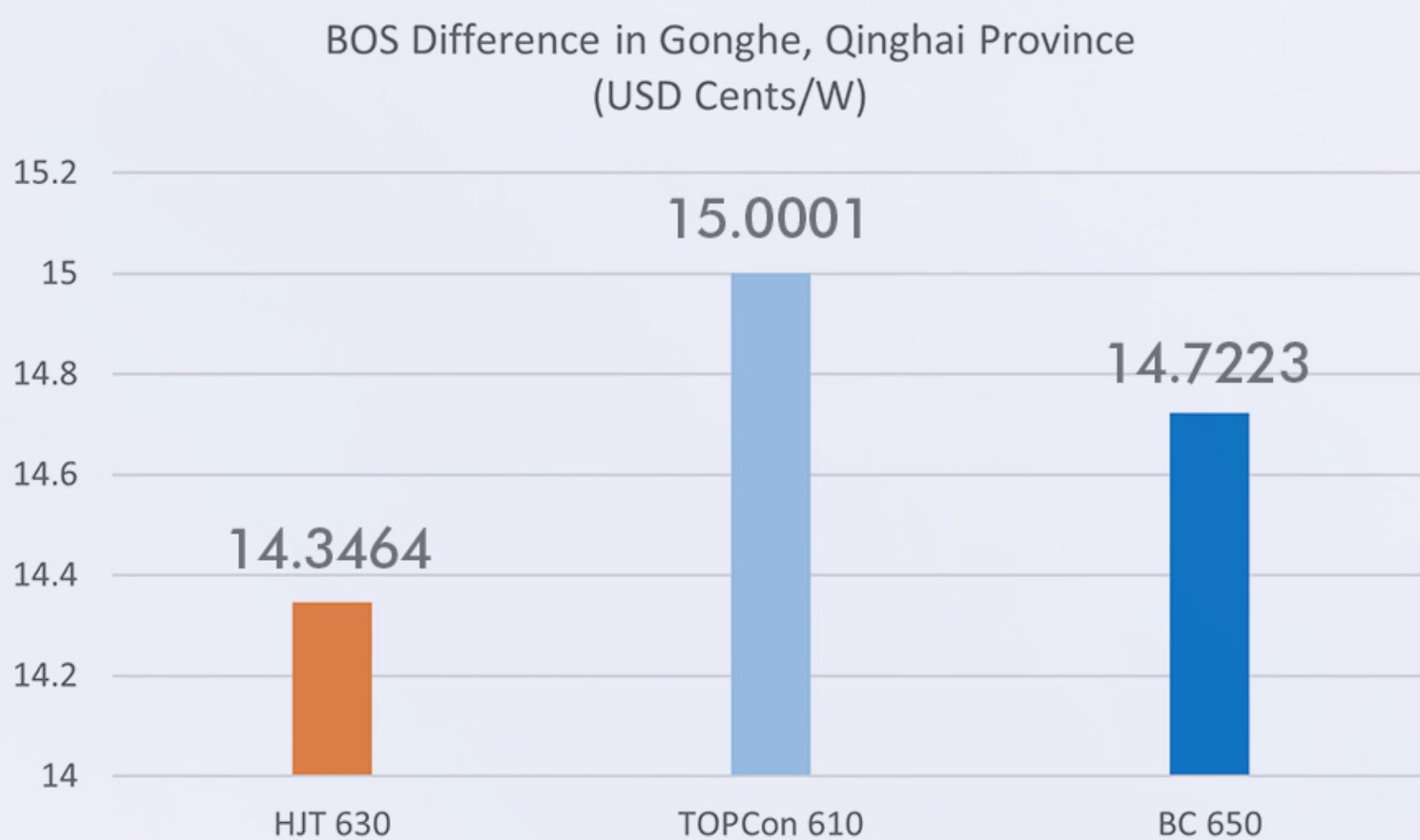
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# 01

## Lower BOS Costs of HJT Projects

In a PV station with DC capacity of 100.9 MW, the HJT 630 W modules deliver superior system efficiency, reducing balance-of-system (BOS) costs by 0.376 USD cents/W, and increasing overall cost-effectiveness for solar project investments.



- ✓ Lower Open-circuit Voltage
- ✓ Optimized Temperature Coefficient
- ✓ 26 HJT 630 W Modules per String vs. 24 for TOPCon 610 W & BC 650 W



# 02

## Higher IRR of HJT Projects

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Huasun's HJT 630W module offers **accelerated cost recovery and enhanced long-term returns**, making it the ideal choice for optimizing both power generation performance and investment value.

Product	HJT 630W	TOPCon 610W	BC 650W
IRR (%)	10.83	10.59	10.73

### Huasun HJT 630W module brings:

- ✓ Higher bifaciality and lower linear degradation
- ✓ 0.24% higher IRR vs. TOPCon 610 W
- ✓ 0.10% higher IRR vs. BC 650 W

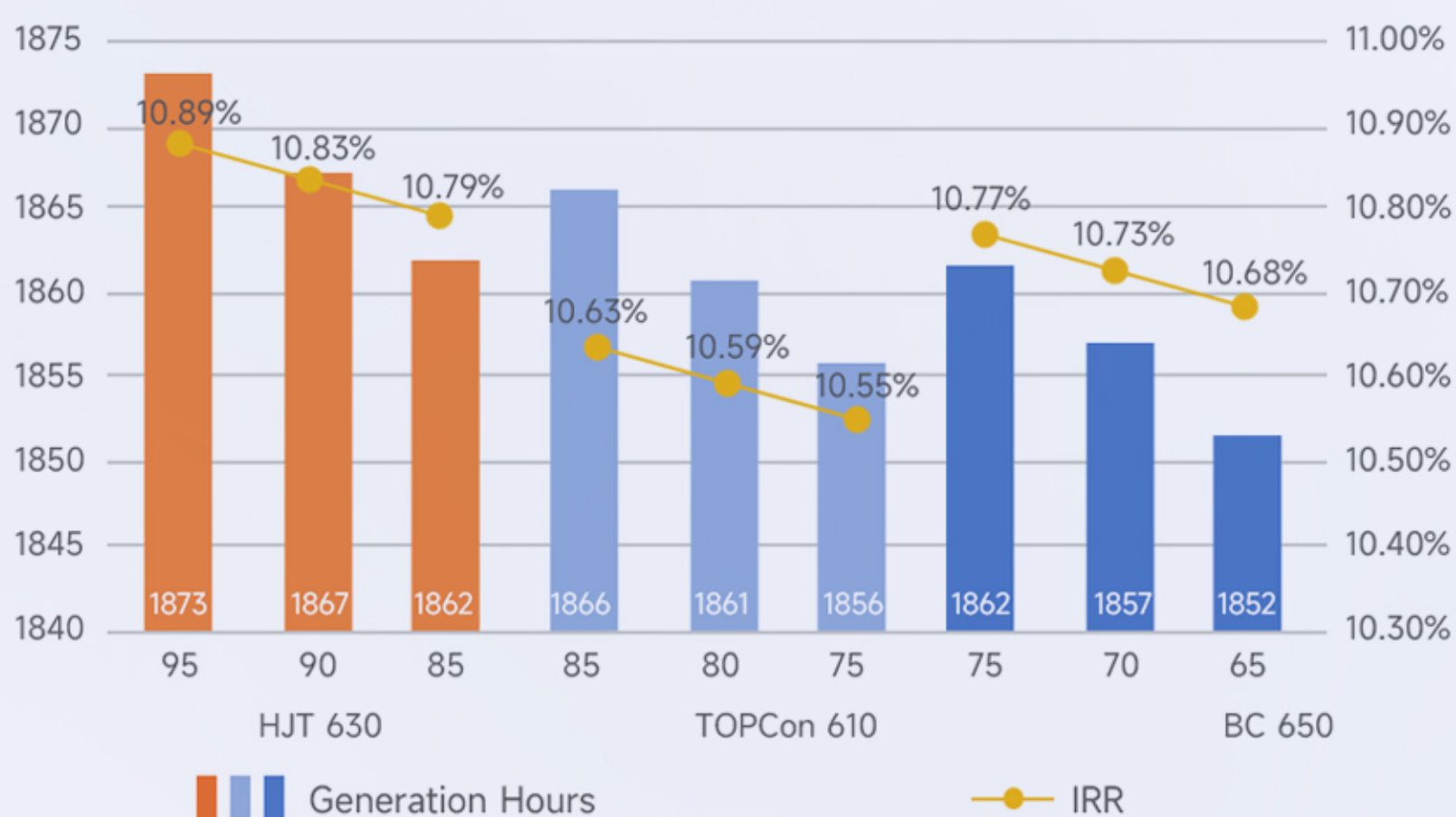


# 03 Sensitivity Analysis

## Module Bifaciality Sensitivity

Under identical environmental conditions, increased module bifaciality delivers greater value. With its **perfectly symmetrical design**, the HJT cell's bifacial performance significantly outperforms competitors. For vertical installations, Huasun introduces the **Himalaya G12 series ultra-high bifaciality modules**, featuring an industry-leading bifaciality of **95+%**, setting a new benchmark in industrial innovation.

Bifaciality Sensitivity Analysis for Generation Hours and IRR



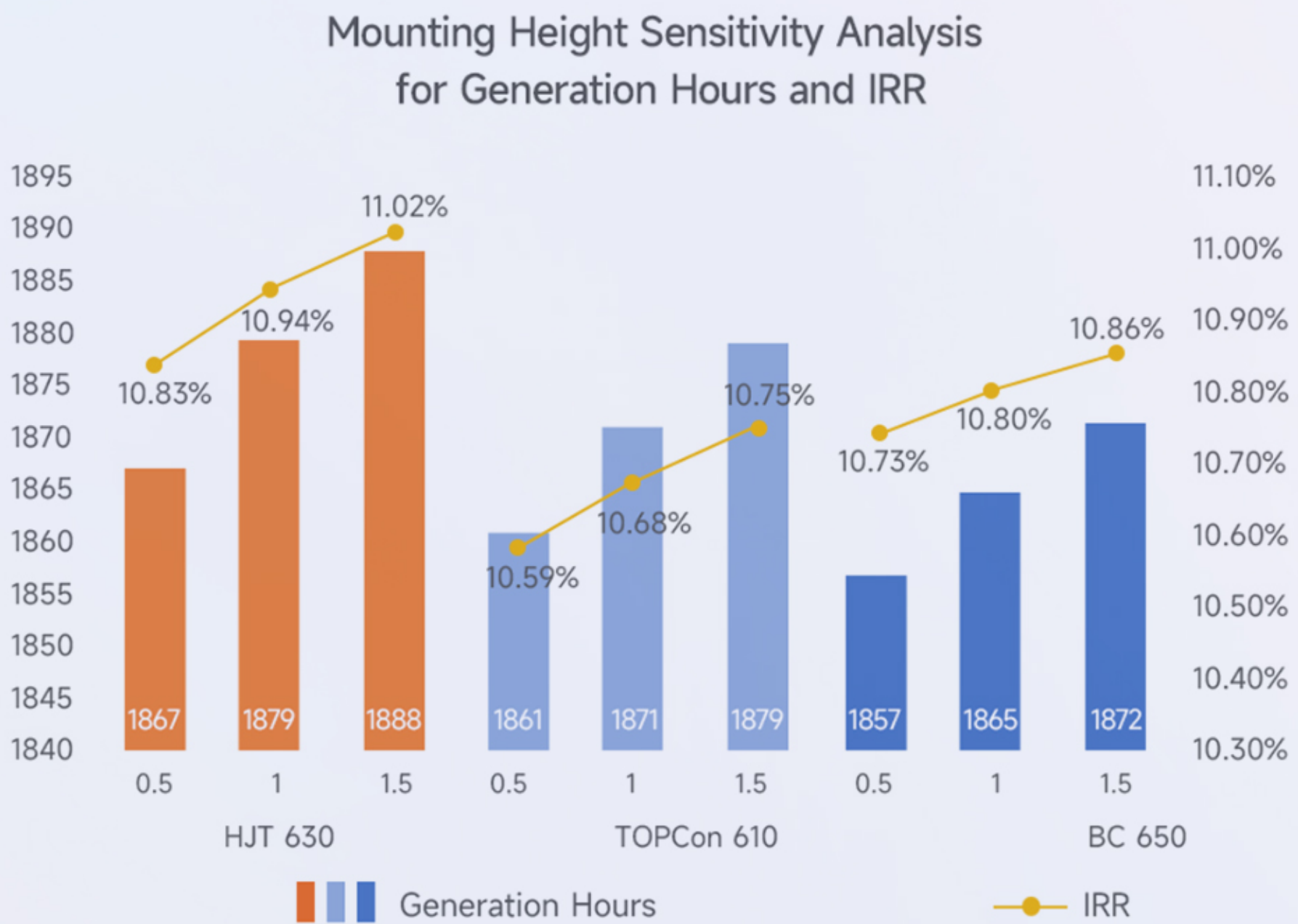
### Huasun HJT 630W module brings:

- ✓ Up to 0.02% higher IRR vs. BC 650 W and TOPCon 610 W for every 10% increase in module bifaciality



# 03 Sensitivity Analysis

## Mounting Height Sensitivity



### Huason HJT 630W module brings:

- ✓ Up to 0.04% higher IRR vs. BC 650 W
- ✓ Up to 0.05% higher IRR vs. TOPCon 610 W  
With every 0.5 m increase in mounting height





On the Roof of the World, HJT solar power stations stand out with **lower BOS costs, higher energy output, and greater returns** in this ultimate competition.

Looking ahead, Huasun will continue to advance HJT technology and product innovation, expanding their applications in diverse environmental conditions, contributing to a greener, low-carbon future.



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