

JUST SOLAR GROUP LIMITED

Renewable Energy for a
Low-Carbon Future

Europe's Preferred Solar Partner Since 2011

- **EU-Made modules**
North Macedonia manufacturing — zero EU tariff
- **4 Technologies**
HJT · BC · TOPCon · PERC in one portfolio
- **4 GW+**
Annual production capacity, 4.5 GW shipped

Corporate Brochure 2025

4 GW+

Annual Production

4.5 GW

Cumulative Shipments

25+

Global Patents

5

Strategic Locations

CLEAN ENERGY · INNOVATION · RELIABILITY · SUSTAINABILITY

Why Choose Just Solar?

Three advantages no competitor can replicate

01

EU-Manufactured, Zero Tariff Risk

Up to 36%

tariff savings vs. imports

Our Skopje, North Macedonia facility produces fully EU-compliant modules — exempted from EU anti-dumping duties on Chinese-origin panels. For European buyers this means up to 36% cost savings with no future trade-policy risk.

"Fast delivery, zero hassle with EU customs."

— EPC Partner, Germany

02

End-to-End Vertical Integration

30-Year

linear power output guarantee

We control every step from silicon cell production to final module assembly and energy storage integration. This eliminates third-party quality risk, accelerates lead times, and enables industry-leading 30-year warranties.

"HJT modules outperformed spec by 4% in Year 1."

— IPP Developer, Spain

03

Technology Portfolio Leading the Market

24.6%

peak module efficiency (BC)

From HJT's record-low 0.26%/yr degradation to BC modules at 24.6% peak efficiency — our four-technology portfolio lets engineers match the optimal architecture to every project type, climate, and budget.

"Competitive pricing without compromising quality."

— Distributor, Benelux

AT A GLANCE

\$480M

Revenue (2024, est.)

4 GW+

Annual Capacity

4.5 GW

Cumulative Shipments

80+

Countries Served

Our Mission

Accelerate the global clean energy transition by delivering high-efficiency, reliable solar solutions that create lasting value for customers, communities, and the planet.

Our Vision

To be a globally trusted leader in photovoltaic technology, driving innovation and sustainability in every module.

Company Overview

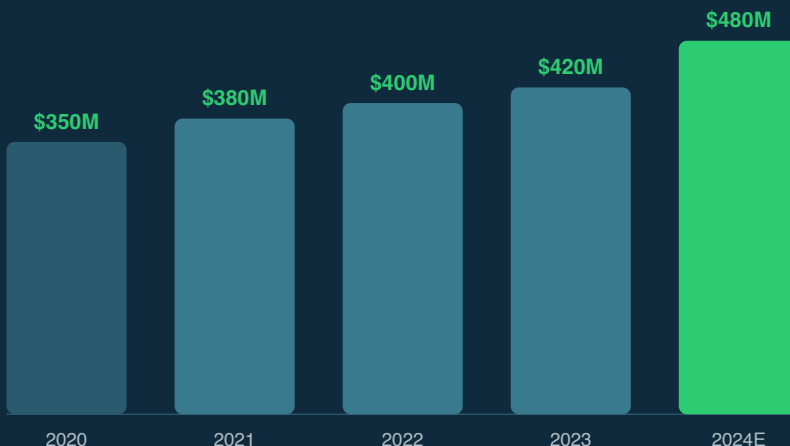
Powering the World's Clean Energy Transition Since 2011

JUST SOLAR GROUP LIMITED is an integrated solar energy solutions provider specialising in the research, development, and manufacturing of high-efficiency photovoltaic modules, solar cells, and energy storage systems. Founded in 2011, we have built a reputation for technological innovation, manufacturing excellence, and an unwavering commitment to quality.

With annual production capacity exceeding 4 GW and cumulative global shipments of 4.5 GW, JUST SOLAR serves customers across Europe, the Americas, the Middle East, Asia-Pacific, and Africa. Vertically integrated manufacturing spanning from solar cells to complete module assemblies ensures end-to-end quality control and highly competitive pricing for our global partners.

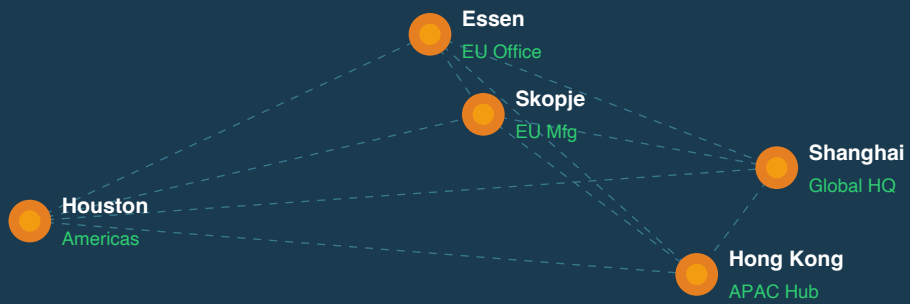
Revenue Growth (USD)

2020 – 2024 | 2024 figure estimated



Global Presence

5 Strategic Locations Across 3 Continents



<p>Shanghai, China Global HQ</p> <hr/> <p>R&D Centre Production Mgmt</p>	<p>Hong Kong, China Asia-Pacific Hub</p> <hr/> <p>Financial Ops Regional Sales</p>	<p>Skopje, N. Macedonia EU Manufacturing</p> <hr/> <p>EU Production Est. 2018</p>	<p>Essen, Germany European Office</p> <hr/> <p>EU Sales Compliance</p>	<p>Houston, USA Americas Office</p> <hr/> <p>Sales Distribution</p>
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80+ Countries Served · Global Supply Chain Excellence · 5-Day EU Delivery

EU ADVANTAGE

0%

Anti-Dumping Duty
vs. up to 36% on
Chinese-origin imports

5 Days

EU Delivery
vs. 6–8 weeks from
Asian origin

100%

EU-Made Label
Carbon footprint
reduced by ~40%

ISO

Certified Quality
9001 · 14001 · 45001
fully compliant

European Manufacturing

State-of-the-Art Facility — Skopje, North Macedonia

Established in 2018, JUST SOLAR's North Macedonian plant is one of the most advanced solar module production facilities in Europe. Strategically located within EU preferential trade agreements, every module produced here ships tariff-free to all 27 EU member states — a decisive commercial advantage for European EPC contractors and project developers.

Advanced Automation

Fully robotic cell & module lines with AI vision QC

100% EL Testing

Electroluminescence test on every module produced

Multi-GW Capacity

Scalable production aligned to EU demand forecasts

Optimised Logistics

Direct road freight to all European markets

EU Compliance & Certifications

- TUV NORD
- ISO 9001
- ISO 14001
- ISO 45001
- CE Marking
- RoHS
- IEC 61215
- IEC 61730

Products & Technology

Complete Solar Solutions — From Silicon to Grid

PV Modules

445 W – 730 W

HJT · BC · TOPCon · PERC

- Up to 24.6% efficiency
- Bifacial options
- 30-year power warranty
- 445–730 W range

Our comprehensive portfolio spans four cell technologies, covering every application from rooftop C&I to utility-scale ground mount. Each module undergoes 100% EL and flash testing before shipment.

Solar Cells

N-Type Monocrystalline

HJT & TOPCon

- Low degradation
- Premium N-type
- HJT & TOPCon
- OEM supply available

High-efficiency N-type monocrystalline cells with industry-leading conversion rates. Available for OEM module manufacturers seeking a reliable and consistent cell supply partner.

Energy Storage

5 kWh – Multi-MWh

LFP · Smart BMS

- Lithium-ion LFP
- Smart monitoring
- Scalable design
- 10+ year life

Integrated LFP battery systems with cloud-based BMS and AI-driven predictive maintenance. Designed to work seamlessly with our PV modules for maximum self-consumption and grid independence.

— Vertically integrated manufacturing — quality controlled at every stage, from silicon to shipment

Technology Comparison

Choosing the right architecture for every project

Technology	Max Efficiency	Annual Deg.	Bifacial Gain	Temp. Coeff.	Best For
HJT	23.50%	0.30%/yr	85% ±5%	-0.26%/°C	Low-light & coastal
BC	24.60%	0.35%/yr	80% ±5%	-0.26%/°C	Space-constrained rooftop
TOPCon	23.81%	0.50%/yr	80% ±5%	-0.30%/°C	Utility LCOE optimised
PERC	22.80%	0.55%/yr	70% ±5%	-0.34%/°C	Cost-sensitive projects

HJT — Heterojunction

Symmetrical amorphous silicon layers deliver industry-lowest 0.30%/yr degradation. Exceptional bifacial performance (85%) and superior weak-light response make HJT ideal for coastal, high-humidity, or northern-latitude sites.

BC — Back Contact

Rear-surface contacts achieve 24.6% peak efficiency — eliminating front-side shading losses entirely. Preferred by architects and C&I developers where aesthetics and energy density per m are paramount.

TOPCon — Tunnel Oxide

The industry's fastest-growing technology in 2024–2025. Strikes the optimal balance between high efficiency (up to 23.81%) and competitive cell cost. Superior LCOE for utility-scale ground-mount over 25-year asset lifetimes.

Energy Storage Solutions

LFP Battery Systems for Every Scale

Energy Density: up to 200 Wh/kg · Cycle Life: 6,000+ cycles · Range: -10°C to +55°C · Warranty: 10 yrs

C&I Rooftop + Storage

Commercial & industrial facilities combining on-site solar generation with battery storage. Reduces peak demand charges, provides backup power, and maximises self-consumption.

- Peak shaving
- Backup power
- Self-consumption > 80%
- OPEX reduction

Utility-Scale BESS

Multi-MW systems for grid stabilisation, frequency response, and renewable energy integration. Supports grid operators managing variable generation at scale.

- Grid stabilisation
- Frequency response
- Black-start capable
- SCADA integration

Microgrid & Off-Grid

Integrated microgrids combining solar, storage, and smart controls for remote communities and facilities. Ensures energy security independent of grid availability.

- 100% renewable
- Diesel displacement
- Smart EMS
- Remote monitoring

Advanced Battery Management System

Real-Time Monitoring

Cloud dashboard — instant performance visibility

Predictive Maintenance

AI algorithms optimise battery health & longevity

Safety Management

Multi-layer protection with active balancing

Smart Grid Integration

Seamless interface with solar systems & grid

Global Projects

Proven Track Record Across Diverse Markets & Climates

<p>120 MW</p> <p>Vietnam Mega Solar</p> <p>Vietnam · Utility-Scale</p> <p>120 MW of TOPCon bifacial modules across two central Vietnam sites. Annual generation 187 GWh, displacing 98,000 t CO₂. PR value 82.4%.</p>	<p>3.2 MW</p> <p>Andalusia Solar Park</p> <p>Spain · Commercial</p> <p>Bifacial BC modules from our Skopje facility. Zero EU import tariff. Completed in 14 weeks from order to energisation. PR value 84.1%.</p>	<p>2.7 MW</p> <p>Rajasthan Agrivoltaic</p> <p>India · Ground Mount</p> <p>HJT modules selected for superior high-temperature performance. Crops maintained beneath elevated arrays — dual land use achieved.</p>	<p>2.5 MW</p> <p>Maldives Island Microgrid</p> <p>Maldives · Off-Grid</p> <p>Hybrid solar + LFP storage for island community. Diesel dependency reduced by 74%. Payback period 6.2 years.</p>
<p>187 GWh Annual yield</p> <p>82.4% Perf. ratio</p> <p>98K t CO₂ saved/yr</p>	<p>5.1 GWh Annual yield</p> <p>84.1% Perf. ratio</p> <p>0% Tariff paid</p>	<p>4.3 GWh Annual yield</p> <p>61°C Max temp tested</p> <p>Dual Land use</p>	<p>74% Diesel reduction</p> <p>6.2 yr Payback</p> <p>24/7 Clean power</p>
<p><i>"Delivered on schedule and 3% above P50 yield."</i></p> <p>— Project developer</p>	<p><i>"EU-made modules, delivered in 5 days. Exactly what we needed."</i></p> <p>— EPC, Germany</p>	<p><i>"HJT modules performed 4% above spec at 45°C ambient."</i></p> <p>— O&M team</p>	<p><i>"The community now has 24/7 solar power."</i></p> <p>— Island authority</p>

Quality & Certifications

Meeting the World's Most Stringent Standards

<p>IEC 61215</p> <p>Module Design Qualification</p>	<p>IEC 61730</p> <p>Module Safety Qualification</p>	<p>TUV NORD</p> <p>Product Safety & Performance</p>	<p>ISO 9001</p> <p>Quality Management</p>	<p>ISO 14001</p> <p>Environmental Management</p>	<p>ISO 45001</p> <p>Occupational H&S</p>
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<p>CE Marking</p> <p>European Conformity</p>	<p>RoHS</p> <p>Hazardous Sub. Restriction</p>	<p>CQC</p> <p>China Quality Certification</p>	<p>Intertek</p> <p>Independent Testing</p>	<p>PV CYCLE</p> <p>End-of-Life Recycling</p>	<p>UN 38.3</p> <p>Battery Transport Safety</p>
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Industry-Leading Warranty · 15-Year Product Warranty · 30-Year Linear Power Output Guarantee

100% Module Quality Process

<p>01</p> <p>Raw Material Inspection</p>	<p>02</p> <p>Cell Production</p>	<p>03</p> <p>Module Assembly</p>	<p>04</p> <p>EL Imaging</p>	<p>05</p> <p>Flash Test</p>	<p>06</p> <p>Hi-Pot Test</p>	<p>07</p> <p>Visual Inspection</p>	<p>08</p> <p>Shipment Cert.</p>
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Product Specifications

BC · TOPCon · HJT Module Series

JST-EBMH (BC Series)

GBC Technology · Dual Glass 2.0+2.0 mm

Rating	635 W	645 W	650 W	655 W	660 W	665 W
Voc (V)	54.02	54.08	54.14	54.19	54.20	54.20
Isc (A)	15.06	15.12	15.15	15.17	15.17	15.18
Vmp (V)	45.35	45.41	45.46	45.48	45.49	45.50
Imp (A)	14.00	14.19	14.29	14.39	14.49	14.59
Eff. (%)	23.5	23.7	23.9	24.1	24.4	24.6
T. Coeff.	-0.26%/°C	-0.26%/°C	-0.26%/°C	-0.26%/°C	-0.26%/°C	-0.26%/°C

Cells: 144 (6x24) · Size: 2382x1134x30 mm · Weight: 35.5 kg · Bifacial gain: 70%±5% · 37 pcs/pallet

JST-EDMH (TOPCon Series)

N-type Monocrystalline · 3.2 mm AR Glass

Rating	445 W	450 W	455 W	460 W	465 W	—
Voc (V)	38.92	38.96	38.98	39.01	39.00	
Isc (A)	14.36	14.40	14.43	14.45	14.46	
Vmp (V)	33.35	33.38	33.42	33.46	33.50	
Imp (A)	13.35	13.48	13.61	13.74	13.88	
Eff. (%)	22.79	23.05	23.30	23.56	23.81	
T. Coeff.	-0.30%/°C	-0.30%/°C	-0.30%/°C	-0.30%/°C	-0.30%/°C	

Cells: 108 (6x18) · Size: 1722x1134x30 mm · Weight: 20.5 kg · Fuse: 25 A · 36 pcs/box

JST-FCMH (HJT Series)

Heterojunction · 2x66 Cells · Dual Glass 2.0+2.0 mm

Rating	700 W	710 W	720 W	725 W	730 W	—
Voc (V)	51.18	51.25	51.30	51.31	51.31	
Isc (A)	17.21	17.26	17.30	17.30	17.31	
Vmp (V)	44.03	44.08	44.11	44.12	44.13	
Imp (A)	15.90	16.10	16.30	16.37	16.43	
Eff. (%)	22.53	22.86	23.18	23.34	23.50	
T. Coeff.	-0.26%/°C	-0.26%/°C	-0.26%/°C	-0.26%/°C	-0.26%/°C	

Cells: 132 (2x66) HJT 210x105 mm · Size: 2384x1303x35 mm · Weight: 38.3 kg · Bifacial gain: 85%±5%

JUST SOLAR

GROUP LIMITED

Renewable Energy for a Low-Carbon Future

Ready to Power Your Next Project?

Our team of solar specialists is ready to support you from initial design through to commissioning and beyond.

Get in Touch

Email

info@justsolar.com

Phone

+86 21 5888 6688

Web

www.justsolar.com

Global HQ

Shanghai, China

info@justsolar.com

R&D Centre · Production Mgmt

European Office

Essen, Germany

europa@justsolar.com

EU Sales · Compliance

Americas Office

Houston, USA

americas@justsolar.com

Sales · Distribution

www.jusolar.com

Global HQ: Shanghai, China

Manufacturing: Skopje, N. Macedonia · Offices: Hong Kong · Essen, Germany · Houston, USA