

## **Colombia Solar Energy - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2026 - 2031)**

Market Report | 2026-02-09 | 95 pages | Mordor Intelligence

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### **Report description:**

Colombia Solar Energy Market Analysis

The Colombia Solar Energy Market was valued at 2.25 gigawatt in 2025 and estimated to grow from 2.9 gigawatt in 2026 to reach 10.39 gigawatt by 2031, at a CAGR of 29.10% during the forecast period (2026-2031).

This forecast highlights the Colombia solar energy market size trajectory and underscores the country's growing role within Latin American renewables. Growth reflects a deliberate pivot away from hydropower following a 23% price spike in April 2024, driven by El Nino, which exposed hydro variability risks and accelerated demand for new generation sources. Rapid deployment is evident, as installed solar capacity surpassed the 1 GW mark in 2024, with an additional 952 MW added since early 2023 across both grid-connected and off-grid systems. Declining levelised costs, VAT exemptions under Law 1715, and streamlined auctions continue to draw international developers to the Colombia solar energy market. Government support for green-hydrogen projects, which rely on abundant low-cost solar electricity, further widens long-term demand for the Colombia solar energy market.

Colombia Solar Energy Market Trends and Insights

Falling Levelised Cost of PV Electricity

Utility projects now post LCOE below USD 0.10/kWh, undercutting diesel generation that dominates non-interconnected zones. Local distribution hubs established by global module vendors reduce logistics premiums, while the European Investment Bank's

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financing of Enel Colombia's 486 MW portfolio demonstrates investor confidence in continued cost declines. Bifacial panels in La Loma raise annual yield and reinforce the cost advantage of the Colombia solar energy market.

#### Net-Metering Incentives for Small Self-Generators

Decree 348 streamlines interconnection and guarantees credit for exported surplus, shrinking rooftop payback periods to 11.3-13.8 years. Banco de Bogota offers low-cost financing for residential arrays, and distribution utilities deploy smart meters to support bidirectional flows.

#### Land-Use Conflicts in La Guajira

Wayuu communities have halted major wind projects and are extending scrutiny to large solar arrays that overlap grazing lands and sacred sites, causing Celsia and Enel to suspend developments and negotiate higher royalty frameworks. Cultural consultation gaps raise reputational risk and complicate timelines despite a new 6% royalty proposal designed to share economic benefits.

Other drivers and restraints analyzed in the detailed report include:

Corporate PPAs from Mining & Data-Centre Sectors  
Green-Hydrogen Linkage Raising Solar Demand  
Transmission Bottlenecks on Caribbean Coast

For complete list of drivers and restraints, kindly check the Table Of Contents.

#### Segment Analysis

Solar PV accounted for 100.00% of installed capacity in 2025. Crystalline-silicon modules dominate due to their high efficiency and extensive global supply chain. The Colombia solar energy market continues to adopt bifacial panels, single-axis trackers, and digital O&M systems that reduce downtime. Concentrated Solar Power remains absent due to higher costs and water requirements, despite irradiation levels exceeding 4.5 kWh/m<sup>2</sup> per day.

Utility developers integrate storage to improve capacity factors, while distributed systems incorporate smart inverters that manage bidirectional flows under net metering. Continuous cost compression supports a 29.60% CAGR for Solar PV through 2031 within the Colombia solar energy market.

The Colombia Solar Energy Market Report is Segmented by Technology (Solar Photovoltaic and Concentrated Solar Power), Grid Type (On-Grid and Off-Grid), and End-User (Utility-Scale, Commercial and Industrial, and Residential). The Market Sizes and Forecasts are Provided in Terms of Installed Capacity (GW).

#### List of Companies Covered in this Report:

Enel Green Power Colombia Celsia S.A. Trina Solar Ltd Canadian Solar Inc. Greenergy Renovables S.A. Ventus Ingenieria SRL Ecopetrol SA TotalEnergies SE Colombian Solar Systems SAS EDF Renovables Colombia First Solar Inc. LONGi Green Energy JinkoSolar Holding Grupo Energia Bogota Sonnedix Power Holdings Solarpack Corporacion AES Colombia Atlas Renewable Energy EDP Renovaveis TrinaTracker (Formerly Nclave)

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The market estimate (ME) sheet in Excel format  
3 months of analyst support

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