



Peru Solar Report

Prepared by J.v.G. Technology GmbH

J.v.G. Technology GmbH is a German engineering company specializing in turnkey solar module production lines and manufacturing consulting, with project experience ranging from 20 MW to 500 MW per production line, including multi-line and gigafactory projects exceeding this scale.

This Solar Report is part of the **PVKnowHow** Knowledge Network.
The data, analysis, and conclusions in this document are based on real research, consulting insights, and international solar market data.

Disclaimer: This document represents an independent market and manufacturing analysis. It is provided for informational and educational purposes only and does not constitute a commercial offer, binding proposal, or contractual commitment.

Gain comprehensive insights into the statistics and metrics surrounding the solar production industry in Peru

KEY POINTS

All figures have been converted into USD



Yearly sunshine (sun hours per year)

Average Yearly Sunshine:

- Location A: 2000 hours
- Location B: 1800 hours
- Location C: 2200 hours



kWh per kWp installed

kWh per kWp:

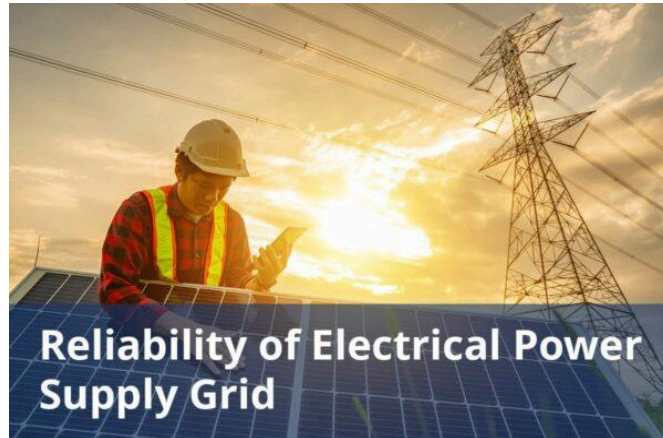
- System A: 1200 kWh/kWp
- System B: 1100 kWh/kWp
- System C: 1300 kWh/kWp



Average cost per kWh from utility company

Average Cost per kWh:

- Location A: \$0.125/kWh
- Location B: \$0.145/kWh
- Location C: \$0.135/kWh



Reliability of electrical power supply grid

Reliability:

- System A: 95%
- System B: 90%
- System C: 97%



DETAILED INFORMATION

All figures have been converted into USD

Total solar panel production capacity (installed)

Total Solar Panels Installed:

- Year 1: 5000 panels
- Year 2: 10000 panels
- Year 3: 20000 panels

Total solar panel production capacity (projected)

Projected Total Solar Panels:

- Year 4: 30000 panels
- Year 5: 50000 panels

Average costs of various electricity generation sources (coal, natural gas, solar, etc)

Average Costs:

- Installation: \$2500.00
- Maintenance: \$150.00/year

Percentages of various electricity generation sources (coal, natural gas, solar, etc)

Percentages of Electricity:

- Solar: 30%
- Wind: 20%
- Fossil Fuels: 50%

Average daily availability of electricity from the national grid (measured in hours)

Daily Availability:

- Average per day: 4.5 hours
- Peak: 6 hours
- Low: 2 hours

Number of residential solar panel installations

Number of Residential Panels:

- Current: 15000 panels
- Expected growth: 10% over the next year

Total number of solar farms (installed and projected)

Number of Solar Farms:

- Current: 30 farms
- Proposed: 10 more farms

Off-grid market demand for solar panels (current and projected)

Off-grid market demand for solar panels:

- Rural Electrification Law: This law mandates the electrification of rural and isolated areas, establishing a fund for renewable energy projects, including solar, and facilitating access to off-grid solutions.
- Incentives and Auctions: The government has implemented feed-in tariffs, tax incentives, and competitive auctions for renewable energy projects, encouraging investment in solar technologies.
- Support for Nonprofits: Initiatives like those from Acciona Microenergía and PowerMundo provide solar home systems and financing models, expanding access to off-grid solar solutions in remote communities.

On-grid market demand for solar panels (current and projected)

On-grid market demand for solar panels:

Peru's current on-grid solar capacity is around 400 MW as of 2024, thanks to installed 115.5 MW of new solar capacity in the first half of 2024.

Government policies play a crucial role in driving the growth of the on-grid peru solar power market, offering feed-in tariffs, tax incentives, and competitive auctions for renewable energy projects, encouraging investment in solar technologies.

Average monthly income of workers in solar industry (labor cost)

Average monthly income of workers in solar industry:

- Solar Photovoltaic Installer: the average monthly salary is approximately \$1,182.
- Solar Energy System Installer: the average monthly salary is approximately \$1,006.
- Solar Panel Technician: the average monthly salary is approximately \$578.30.

Population of the country

Population of the country:

The current population of Peru is 34,260,763.

Average overhead costs of solar panel production (with a brief breakdown)

Average overhead costs of solar panel production:

Estimate for Factory Rent: The average rent for industrial and logistics real estate in Lima, Peru in the first half of 2022 was \$8 per square meter per month for class B warehouse and distribution facilities.

Industrial Electricity Rates: The average wholesale electricity price in Peru was \$152.69 per MWh in 2022.

A summary of the energy infrastructure

A summary of the energy infrastructure:

Electricity Generation: Peru's electricity generation is characterized by a diverse energy mix, with approximately 54% of its electricity coming from renewable sources and 46% from conventional energy.

Transmission and Distribution: Peru is investing over \$1.13 billion to enhance its power transmission infrastructure by 2032.

Some of the government regulations surrounding solar panel production

Some of the government regulations surrounding solar panel production:

- Concession Requirement: Solar projects with an installed capacity exceeding 500 kW must secure a concession from the Ministry of Energy and Mines (MEM).
- Environmental Impact Assessments: All solar projects are required to conduct environmental impact assessments.

Government initiatives in solar panel production (includes investments and subsidies)

Government initiatives in solar panel production:

- Legislative Proposal for Solar Canon: A bill has been proposed to establish a solar canon, allocating 50% of the income tax paid by

photovoltaic plant concessionaires to support social development projects.

- Investment in New Solar Capacity: The Ministry of Energy and Mines reported the installation of 115.5 MW of new solar capacity in the first half of 2024.

Notable solar projects in the country (installed and projected)

Notable solar projects in the country:

Current Projects:

- Cledesí Solar Power Plant: Located in Moquegua, this 115 MW solar project began operations in February 2024.
- Carhuaquero Solar Power Plant: This 0.55 MW solar project in Cajamarca commenced operations in February 2024.

Some of the notable solar companies (plus brief details on what they do)

Some of the notable solar companies:

- Acciona Energía Perú: A global leader in renewable energy, focusing on sustainable infrastructure and energy solutions.
- Engie Energía Perú: A multinational utility company that specializes in energy and services.



ABOUT THIS REPORT

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All market data, analysis, and conclusions follow JvG's internal consulting standards and international PV market research practices.

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About J.v.G. Technology GmbH

J.v.G. Technology GmbH is a European engineering and advisory specialist for solar production lines and manufacturing equipment, supporting investors and operators with market, location and production-focused decision frameworks.

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