



Cameroon 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.

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

KEY POINTS

All figures have been converted into USD



Yearly sunshine (sun hours per year)

The total annual sunshine in Cameroon varies by location, ranging from approximately 1644 to 2927 hours.



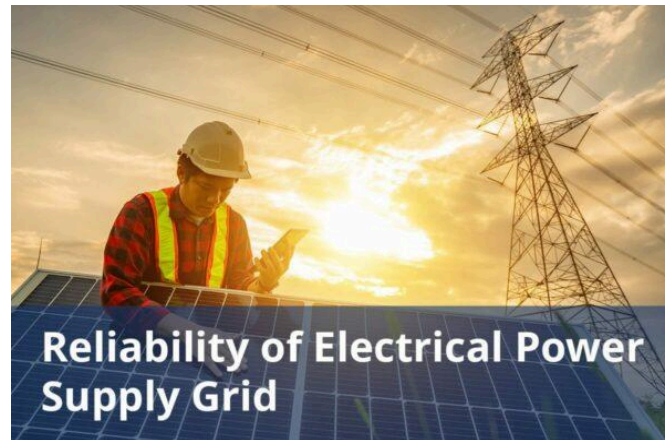
kWh per kWp installed

The annual average potential for photovoltaic (PV) energy generation in Cameroon is approximately 1.2 – 1.8 MWh/kWp.



Average cost per kWh from utility company

As of September 2025, residential electricity prices are approximately \$0.089/kWh, while businesses pay about \$0.188/kWh.



Reliability of electrical power supply grid

Cameroon's electrical grid faces substantial reliability challenges, including frequent outages, transmission constraints, and high distribution losses.

Power outages are common in major cities like Yaoundé and Douala due to a supply-demand imbalance that regularly exceeds 80 MW.



DETAILED INFORMATION

All figures have been converted into USD

Total solar panel production capacity (installed)

Total installed solar photovoltaic (PV) capacity in Cameroon is approximately 62 MW.

Total solar panel production capacity (projected)

The government plans to boost Cameroon's solar capacity to 250 MW by 2030.

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

- Hydro power - 0.02 – 0.10 \$/kWh
- Solar power - 0.06-0.11 \$/kWh
- Hybrid systems (PV/diesel/small hydro/battery) - 0.25-0.40 \$/kWh

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

- Hydroelectricity: 56.15%
- Fossil Fuels: 43.84% (17.55% from natural gas and 26.29% from oil)
- Solar Energy: 0.01%

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

On average, electricity availability from the national grid in Cameroon is around 16 to 18 hours per day.

Number of residential solar panel installations

Notable programs supporting solar power adoption for households:

- upOwa – over 40000 solar installations
- African Export-Import Bank – 13000 rural households
- Program supported by Credit Sahel – over 6100 households
- Individual Initiatives: over 200 households

Total number of solar farms (installed and projected)

There are multiple solar farms in Cameroon, with the largest located in Maroua and Guider, totaling over 36 MW of capacity for phase 1; total solar capacity is increasing to around 64 MWp as part of an expansion expected to be completed by the end of 2025.

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

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

With over 70% of rural households lacking access to electricity, there is a pressing need for off-grid solutions.

According to a report, a total 135 mini-grids have been installed, and many more underway!

Investments in off-grid solar projects in Central Africa have predominantly come from crowdfunding initiatives, which amounted to \$1.38 million in 2018, and from government or donor funding, which totaled \$3.75 million in 2017.

The expansion of mobile banking and financing options, such as pay-as-you-go (PAYGO) models, is facilitating greater participation in the off-grid solar market.

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

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

The on-grid solar market in Cameroon is projected to grow as the government and private sector invest in renewable energy infrastructure.

The government aims to increase access to electricity significantly by 2035, with plans to connect more localities to the grid.

The Rural Electrification Master Plan (PDER) seeks to connect 500 new localities per year.

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

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

- The average monthly salary in Cameroon is approximately \$800.
- Solar Energy Installation Manager: the average monthly salary is approximately \$1,057.
- Solar Photovoltaic Installer: the average monthly salary is approximately \$458.

Population of the country

Population of the country:

The current population of Cameroon is 29284473.

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

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

Estimate for Factory Rent:

- Industrial factory and warehouse rent prices in Cameroon are approximately \$4.00 - \$5.00 per square meter per month, depending on the location and specific characteristics of the property.

Industrial Electricity Rates:

- As of 2023, the average electricity price in Cameroon is approximately \$0.178/kWh.

Water Costs:

- Industrial clients in Cameroon have five different tariffs, ranging from \$0.55 to \$0.65 per cubic meter.

A summary of the energy infrastructure

A summary of the energy infrastructure:

Cameroon's electricity generation is primarily dominated by hydropower, which accounts for approximately 56% of the total energy mix.

Renewables (including solar) are contributing only 2%, with recent developments such as a 30 MW solar park in the northern region.

Cameroon's electricity infrastructure consists of three main interconnected subsystems:

- Southern Interconnected Subsystem (RIS): Covers the Littoral, West, Centre, South, North-West, and South-West regions, with an installed capacity of approximately 1400 MW.
- Eastern Interconnected Subsystem (RIE): Primarily serves the East region with a capacity of 42 MW.
- Northern Interconnected Subsystem (RIN): Serves the northern regions with a capacity of 102 MW.

Some of the government regulations surrounding solar panel production

Some of the government regulations surrounding solar panel production:

Electricity Sector Law:

- The law defines renewable energy sources, including solar energy, and establishes the conditions for electricity generation, transmission, and distribution.

Licenses:

- Developers must obtain licenses from the Ministry of Water and Energy (MINEE) and the Electricity Sector Regulatory Board.

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

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

- **Public-Private Partnerships:** The government collaborates with international organizations and private companies to develop large-scale solar plants and mini-grids.
- **Rural Electrification Programs:** Initiatives like the installation of mini photovoltaic solar power plants aim to improve electricity access in rural areas.

Notable solar projects in the country (installed and projected)

Notable solar projects in the country (installed and projected):

- **Maroua and Guider Solar Power Plants:** Commissioned in September 2023, these plants represent Cameroon's first public solar initiative, with a combined capacity of 36 MW.
- **Garoua Solar Power Plant:** A new 20 MW solar facility is planned for Garoua.

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

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

- African Solar Generation (ASG): Dedicated to combating energy poverty in Cameroon by providing solar solutions for families, businesses, and institutions.
- Solarctrl: Dedicated to advancing solar energy solutions through the provision of high-quality solar products 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.

REFERENCES

All References

For a detailed list of references and additional information, please visit our website with the current report at:

<https://www.pvknowhow.com/solar-report/cameroon/>

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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