



Burkina Faso 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 Burkina Faso

KEY POINTS

All figures have been converted into USD



Yearly sunshine (sun hours per year)

Ouagadougou, Burkina Faso receives an average of 3031 hours of sunlight per year, with approximately 8 hours and 17 minutes of direct sunlight per day. This represents about 69% of the total possible sunlight hours per year (4383).



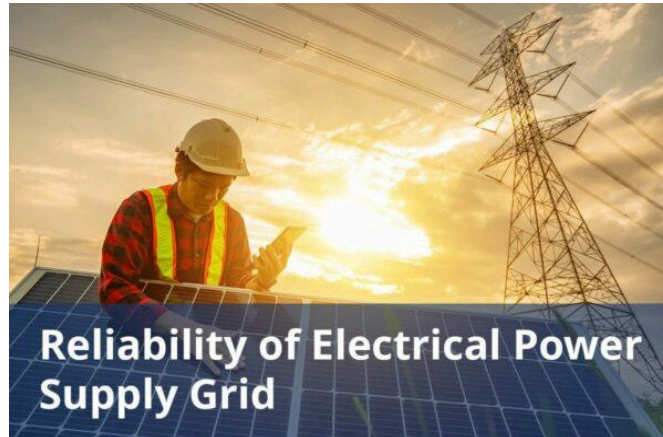
kWh per kWp installed

An average annual production of solar PV systems of about 1.4 – 1.8MWh/kWp/yr is observed in Burkina Faso.



Average cost per kWh from utility company

The price of electricity for residential use in Burkina Faso is \$0.218/kWh;
but it is \$0.231/kWh for businesses.



Reliability of electrical power supply grid

In a 2019 survey in Burkina Faso, only slightly over 15% of the population had a reliable electricity connection that worked most or all of the time.

Another 6% had an intermittent connection, while a significant 78% had no access to the electric grid at all.



DETAILED INFORMATION

All figures have been converted into USD

Total solar panel production capacity (installed)

Burkina Faso's installed solar PV capacity reached 177 megawatts (MW), according to the International Renewable Energy Agency (IRENA).

Total solar panel production capacity (projected)

Burkina Faso has vast solar potential, with a maximum capacity of approximately 95.9 GW. While exact solar data is unavailable, the country aims to add around 500 MW of renewable energy capacity by 2025, paving the way for significant solar growth.

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

However, the average electricity price in Burkina was \$212/MWh in 2023.

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

Distribution of electricity generation in Burkina Faso by source is given below.

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

Power outage times increased in 2018, with an average of 233 hours, up from 172 hours in 2017, representing a 35% rise in outage duration.

Number of residential solar panel installations

The number of residential solar panel installations in Burkina Faso is not precisely documented.

However, by the end of 2021,

Burkina Faso had about 62 MW of installed solar capacity, with ongoing efforts to expand this further through various projects funded by international organizations like the World Bank.

Burkina Faso solar energy initiatives are a key part of the country's strategy to increase renewable energy access and reduce reliance on traditional power sources.

Total number of solar farms (installed and projected)

Five current Solar Farms and one upcoming solar farm are in pipeline.

Current:

- Kodení Solar Power Station
- Nagreongo Solar Power Station
- Pâ Solar Power Station

- Zagtoui Solar Power Station
 - Zina Solar Power Station
- Projected:
- Donsin Solar Power Station (2026)

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

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

Burkina Faso has significant off-grid potential, with 47% of its population suitable for clean hybrid mini-grids and stand-alone solar systems. The Solar Energy and Access Project (SEAP) aims to:

- Electrify 300 rural localities, connecting 120,000 households, MSMEs, schools, and health centers
- Procure 325 MWp of solar energy with 335 MWh of battery storage, starting with 120 MWp and 120 MWh
- Mobilize over \$400 million in private investment for solar production and innovative battery storage
- Reduce electricity supply costs and expand rural access without increasing recurring subsidies

SEAP will enhance access to solar energy, promote private financing for electricity, and drive economic growth in rural areas.

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

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

Current Demand:

Burkina Faso's on-grid market demand for solar panels is driven by utility-scale projects integrating renewable energy into the national grid. As of 2021, the country has:

- 62 MW of grid-connected solar capacity
- Operational solar power plants like Zagtouli Solar Power Station contributing to the grid
- Government promotion of solar energy to diversify the energy mix and reduce fossil fuel dependence

Projected Demand:

The demand for solar panels in Burkina Faso's on-grid market is expected to grow significantly due to:

- Ongoing and planned solar power projects, including expansions and new solar farms
- Government policies, international investments, and partnerships driving further investments
- Increasing awareness of solar energy's environmental benefits and cost-effectiveness

This growth is poised to stimulate additional investments in grid-connected solar projects, driving the country's transition to renewable energy.

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

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

A Solar Photovoltaic Installer working in Burkina Faso will typically earn around \$4242.52 per year, and this can range from the lowest

average salary of about \$2162.61 to the highest average salary of \$6528.68.

Population of the country

Population of the country:

The current population of Burkina Faso is 23786739.

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

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

Not available

A summary of the energy infrastructure

A summary of the energy infrastructure:

Electricity Generation:

- Burkina Faso generates electricity using a variety of energy sources, including biomass, fossil fuels, hydroelectricity, and solar.
- In 2022, oil and diesel were the largest source of electricity generation, accounting for 78.74%.
- The country's national electricity company, SONABEL, also uses thermal power, which is generated by burning heavy fuel oil.
- Burkina Faso's energy sources include biomass, fossil fuels, hydroelectricity, and solar.
- The country's power sector also includes:
 - 300 MW installed capacity,

- 253 MW diesel and HFO,
- 32 MW hydro,
- 33 MW solar.

Transmission & Distribution:

Burkina Faso's National Electricity Company (SONABEL) oversees the generation, transmission, and distribution of electricity. The country's electricity supply strategy focuses on:

- Interconnections: Connecting with neighboring countries to enhance regional energy cooperation
- Network Expansion: Upgrading and extending the existing grid infrastructure
- Local Generation: Promoting the development of local power generation capacity to increase energy self-sufficiency

These initiatives aim to improve the reliability, efficiency, and sustainability of Burkina Faso's electricity supply.

Some of the government regulations surrounding solar panel production

Some of the government regulations surrounding solar panel production:

1. Energy Code and Fiscal Incentives:

- Preparation required for the energy code.
- Adopting fiscal incentives for PV material.

2. Regulatory Framework and Licensing:

- Decree 2017-1011 sets capacity thresholds for various authorizations on electricity production and distribution.

- Decree 2017-1012 establishes detailed procedures for granting production licenses and authorizations.

- Competitive bidding is required for projects above 5 MW.

3. Renewable Energy and Energy Efficiency Agency (ANEREE):

- Established to control, support, and supervise renewable energy and energy efficiency markets.

- Supports and promotes flagship renewable and energy efficiency projects.

- Federates partners in renewable energy and energy efficiency sectors.

- Initiates commercial and public services related to renewable energy and energy efficiency.

- Supports research and education in renewable energy and energy efficiency.

4. VAT Exemption and Quality Standards:

- Inter ministerial Order 2020-033 exempts certain solar equipment from VAT, provided they conform to quality standards set by the energy ministry.

- Conformity agreements are delivered by ANEREE.

These regulations collectively support the production, installation, and promotion of solar panels, ensuring quality control, financial incentives, and structured development within the renewable energy sector in Burkina Faso.

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

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

1. Energy Strategy 2019-2023:

- Aims to mobilize external and domestic financial resources to strengthen energy supply and improve energy efficiency.
- Focuses on national financing (state, banking, and financial system), external aid (bilateral and multilateral grants and concessional loans), and foreign private capital through public-private partnerships.

2. PACAO-BF (2018-2022):

- Established to transform the economy through the solar energy sector.
- Created the Cluster Solaire to promote synergies among sector actors and provide financial support.
- Aims to set up financing mechanisms favoring equity, external subsidies, and technical and financial partner financing.
- Establishes a fund as a support guarantee for solar companies.
- Encourages local commercial banks to provide loans with preferential rates (5% interest, 15-year maturity).

3. Burkina Faso Compact II (2021-2026):

- Implements projects to enhance the financing ecosystem of renewable energy, including solar power.
- PREDEL project facilitates access to guarantees and insurance products for liquidity and creditworthiness.
- PADOEL project aids independent power producer transactions with advisory services.
- PRAEL project establishes funds to provide access to lower-income consumers for purchasing electrical equipment.

4. Back Up Solaire Project (2019):

- Facilitates the installation of solar home systems in off-grid areas with three-year zero-interest subsidies.
- First phase installed 850 systems; the second phase aims for 3500 systems.

Notable solar projects in the country (installed and projected)

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

Major Solar Projects in Burkina Faso:

Zagtouli Solar Power Station:

- 33 MW solar power plant, operational since 2017
- Largest solar power plant in West Africa at the time of commissioning
- Generates 56 GWh of electricity annually, sold to SONABEL

Zina Power Project:

- 27 MW solar power project in Mouhoun province
- Financed by IFC, Canadian loans, and Emerging African Infrastructure Fund
- 25-year power purchase agreement with SONABEL

Kodéni Solar Power Plant:

- Initial capacity of 38 MWp, expected to double to 76 MWp
- Generates approximately 73 GWh annually, powering 42000 households

Zina solar field:

- 6 MW project in Mouhoun province, developed by Amea Power

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):

Salgatech:

Website:

- <https://www.ietp.com/en/company/salgatech>

- Salgatech is a renewable energy company based in Burkina Faso, specializing in the production and installation of multifunctional cold rooms and ice machines.
- Their products are designed to provide sustainable solutions for preserving perishable goods, particularly benefiting the agricultural and food sectors by reducing post-harvest losses.
- To support Salgatech's growth and objectives, Sinergi Burkina, part of the I&P Acceleration in Sahel program, is providing assistance in the following areas:
 - Relaunching and enhancing the production capacity of solar cold rooms, establishing a "cold landlord" service for renting solar cold room spaces, implementing a professional internal accounting system, and strengthening the sales force.

Sahela Solar:

Website:

- <https://www.ruralelec.org/member/sahelia-solar/>

- Sahelia Solar, a seasoned project developer and integrator of solar energy solutions in Burkina Faso, has been driving sustainable energy growth for over a decade.



ABOUT THIS REPORT

This Solar Report is part of the PVKnowHow Knowledge Network, developed by J.v.G. Technology GmbH - a German engineering company, specializing in turnkey solar module production lines (ranging from 20 MW to 500 MW per production line, including multi-line and gigafactory projects exceeding this scale).

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/burkina-faso/>

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.

www.jvg-thoma.com

Contact & Further Information

For further discussion or clarification of manufacturing-related aspects, please contact:

J.v.G. Technology GmbH

www.jvg-thoma.com

info@jvg-thoma.com