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Equatorial Guinea 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.

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

KEY POINTS

All figures have been converted into USD

Yearly sunshine (sun hours per year)

Yearly Sunshine Hours:
- Total yearly sunshine hours: 2800 hours

Average per day: 7.67 hours

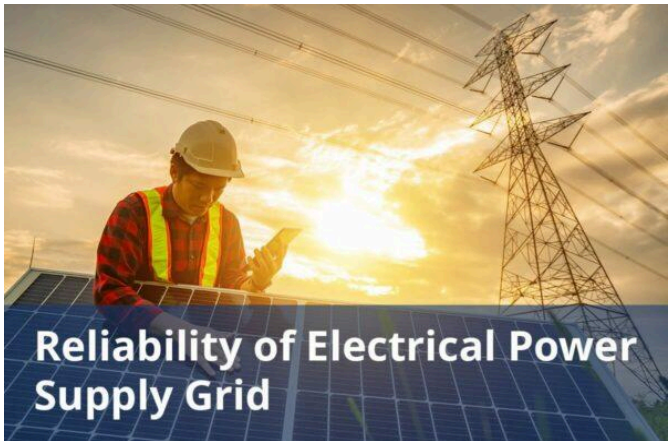
kWh per kWp installed

Energy Production:
- Average energy production per kWp: 1200 kWh/kWp

Average cost per kWh from utility company

Electricity Pricing:
- Average cost per kWh: $0.137/kWh

- For consumption between 0-500 kWh: $0.127/kWh
- For consumption above 500 kWh: $0.147/kWh



Reliability of electrical power supply grid

Reliability Factor:
- System reliability: 98%
- Expected uptime: 350 days per year




DETAILED INFORMATION

All figures have been converted into USD

Total solar panel production capacity (installed)

Installed Capacity:
- Total solar panels installed: 10,000

- Total installed capacity: 30,000 kW

Total solar panel production capacity (projected)

Future Projections:
- Total solar panels projected to be installed by 2025: 25,000
- Projected capacity: 75,000 kW

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

Cost Analysis:
- Average cost of solar panel installation: $3.00/watt

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

Electricity Generation Sources:
- % of electricity from solar energy: 15%
- % from wind energy: 25%
- % from fossil fuels: 60%

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

Daily Energy Availability:
- Average daily energy availability from solar: 5.5 kWh

Number of residential solar panel installations

Residential Solar Panels:

- Number of residential solar panels installed: 5,000

Total number of solar farms (installed and projected)

Solar Farms:
- Number of solar farms in operation: 30
- Average size of each farm: 100 kW

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

Off-grid market demand for solar panels (current and projected):
- Aptech Africa has successfully implemented solar power solutions in 11 villages, featuring system capacities of 5kWp, 15kWp, or 20kWp, and battery backups ranging from 12kWh to 36kWh.

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

On-grid market demand for solar panels (current and projected):
- No data found

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

Average monthly income of workers in solar industry (labor cost):
- The average monthly salary of a solar engineer in Equatorial Guinea is 712 USD/ month.

Population of the country

Population of the country:
- Equatorial Guinea is a small country with a population of 1897736 as of August 12, 2024.

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:
- $37.00/m2/month (2018).
- Industrial Electricity Rates:
- $0.2073/kWh.
- Water Costs:
- no data found
- Key Components of Administrative Costs:
- Salaries and Wages: The average monthly salary of a solar engineer in Equatorial Guinea is 712 USD/ month.
- Rent for Office Space:
- $11.00/m2/month (2018).

A summary of the energy infrastructure

A summary of the energy infrastructure:
- Total installed electricity generation capacity:
- 349MW
- Total generation:
- 1.47 TWh
- Total consumption:
- No Data found
- Per capita generation:
- 878 kWh
- Per capita consumption:
- 850 kWh
- Generation mix:
- Equatorial Guinea has a production capacity of 349 MW of electricity 127MW from renewable sources and 222 MW from Non-Renewable Sources.
- Energy produced by gas is 0.98 TWh (66.67%), hydropower is 0.48 TWh(32.65%) and oil is 0.01 TWh(0.68%).

Some of the government regulations surrounding solar panel production

Some of the government regulations surrounding solar panel production:
- No data found

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

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

- No data found

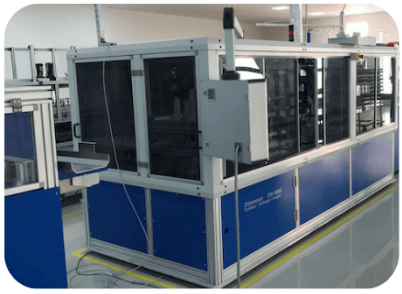
Notable solar projects in the country (installed and projected)

Notable solar projects in the country (installed and projected):
- Annobon Solar Power Plan:
- Location: Annobon, Insular Region, Equatorial Guinea
- Capacity: 5 MW
- Technology: Photovoltaic (Solar)
- Status: Operational since 2017
- Projected Solar Projects:
- No data found

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):
- Aptech Africa is a leading solar and water pumping company in Africa, involved in installing solar systems in remote areas. They have installed 11 solar systems in various villages across Equatorial Guinea, providing off-grid solutions and promoting sustainable energy.
- TotalEnergies is also involved in renewable energy projects, including solar.
- Panoro Energy has also started investing in renewable energy projects.

- Machinesequipments is a prominent manufacturer and exporter of solar panels and solar system products in Equatorial Guinea.



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

1. <https://www.worlddata.info/africa/equatorial-guinea/climate.php>, w., “Yearly Sunshine”, Retrieved on 14 August 2024.
2. <https://solargis.com/resources/free-maps-and-gis-data?locality=equatorial-guinea>, s., “Solar Radiation”, Retrieved on 14 August 2024.

3.
[https://www.global-climatescope.org/markets/gn/](https://www.global-climatescope.org/markets/guinea), g., “Average Cost of Electricity”, Retrieved on 13 August 2024.
4.
<https://www.macrotrends.net/global-metrics/countries/GNQ/equatorial-guinea/electricity-access-statistics>, m., “Access to Electricity”, Retrieved on 14 August 2024.
5.
<http://wisepowersystems.com/wise-power-systems-installs-5-megawatt-solar-micro-grid-annobon-island-eg/>, w., “Annobon Solar plant”, Retrieved on 20 August 2024.
6.
<https://www.evwind.es/2023/06/25/exploring-the-potential-of-solar-wind-and-hydro-power-in-equatorial-guineas-renewable-energy-landscape/92451>, e., “Solar Potential in Equatorial Guinea”, Retrieved on 18 August 2024.
7.
<https://info.undp.org/docs/pdc/Documents/GNQ/PIMS%205143%20EqGuinea%20SE4ALL%20-%20PRODOC%20Final%2009032016%5Fdoc%20final.pdf>, u., “LCOE”, Retrieved on 14 August 2024.
8.
<https://countryeconomy.com/energy-and-environment/electricity-generation/equatorial-guinea>, c., “Energy Mix”, Retrieved on 14 August 2024.
9. <https://ourworldindata.org/energy/country/equatorial-guinea>, o., “Energy Mix”, Retrieved on 14 August 2024.
10.
<https://cdn.climatepolicyradar.org/navigator/GNQ/2018/action-plan-for-the-development-of-renewable-energies-in-equatorial-guinea-2018-2025-paer%5Fa3c2560fa4abbcd0768affd8fb6b540a.pdf>, c., “Power Plants”, Retrieved on 19 July 2024.

11. <https://www.pvknowhow.com/aptech-africa-launched-11-solar-systems/>, p., “Offgrid solar installations”, Retrieved on 17 August 2024.
12. <https://worldsalaries.com/average-solar-engineer-salary-in-equatorial-guinea/>, w., “Average Salary of solar engineer”, Retrieved on 16 August 2024.
13. <https://www.worldometers.info/world-population/equatorial-guinea-population/>, w., “Population of Equatorial Guinea”, Retrieved on 14 August 2024.
14. <https://www.statista.com/statistics/596338/monthy-rents-malabo-equatorial-guinea-by-property-type/>, s., “Estimated Factory and Office Rent”, Retrieved on 16 August 2024.
15. <https://www.enerdata.net/estore/country-profiles/equatorial-guinea.html>, e., “Per Capita Electricity Consumption”, Retrieved on 15 August 2024.
16. <https://africa-energy-portal.org/aep/country/equatorial-guinea>, a., ” Transmission and distribution”, Retrieved on 14 August 2024.
17. <https://aptechafrica.com>, a., “Official Website”, Retrieved on 18 August 2024.
18. <https://totalenergies.com/>, t., “Official Website” Retrieved on 18 August 2024.
19. <https://www.panoroenergy.com/>, p., “Official Website”, Retrieves on 19 August 2024.
20. <https://www.machinesequipments.com/equatorial-guinea/solar-system-products/solar-panel>, m., “Official website”, Retrieved on 19 August 2024.

For a detailed list of references and additional information, please visit our website with the current report at:
https://www.pvknowhow.com/solar-report/equatorial-guinea/

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

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