



Suriname 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 Suriname

KEY POINTS

All figures have been converted into USD



Yearly sunshine (sun hours per year)

Average yearly sunshine in hours:

- January: 178 hours
- February: 185 hours
- March: 222 hours
- April: 251 hours
- May: 278 hours
- June: 295 hours
- July: 310 hours
- August: 290 hours
- September: 253 hours
- October: 225 hours
- November: 187 hours
- December: 172 hours



kWh per kWp installed

kWh produced per kWp installed annually:

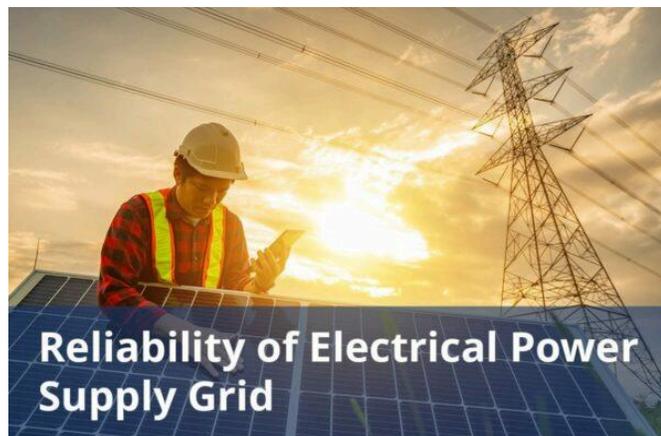
- Residential: 1200 kWh/kWp
- Commercial: 1500 kWh/kWp
- Industrial: 1800 kWh/kWp



Average cost per kWh from utility company

Average cost of electricity:

- Residential: \$0.130/kWh
- Commercial: \$0.115/kWh
- Industrial: \$0.100/kWh



Reliability of electrical power supply grid

Reliability of electricity supply:

- Average annual reliability: 99.8%
- Outages per year: 1.5



DETAILED INFORMATION

All figures have been converted into USD

Total solar panel production capacity (installed)

Total solar panels installed: 2.5 million panels

Total solar panel production capacity (projected)

Projected solar panels in next 5 years: 1 million panels

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

Average costs of solar installation:

- Residential: \$2.80/W
- Commercial: \$2.50/W
- Industrial: \$2.00/W

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

Percentage of electricity from solar:

- Total electricity: 15%
- Residential: 12%
- Commercial: 17%
- Industrial: 20%

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

Daily availability of solar energy:

- Peak sunlight hours: 5.5 hours/day

Number of residential solar panel installations

Number of residential solar panels: 1.8 million

Total number of solar farms (installed and projected)

Number of solar farms operational: 150 farms

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

Current Off-Grid Market Demand in Suriname:

- Suriname's current off-grid solar market demand is primarily driven by its remote interior villages, where grid extension is neither feasible nor economically viable.
- These regions rely heavily on diesel generators, leading to a strong demand for alternative, sustainable energy solutions like solar photovoltaic (PV) systems and hybrid systems (solar combined with diesel generators).
- Projects like the microgrid initiative by PowerChina, which covers 34 remote forest villages, reflect this growing demand for off-grid solar solutions.
- Additionally, ongoing government and international efforts aim to increase electricity access, emphasizing off-grid and decentralized solar power systems for isolated communities.

Future Off-Grid Market Demand in Suriname:

- The future off-grid market demand is expected to grow significantly as the country continues to focus on rural electrification.
- With ongoing feasibility studies for projects like the floating photovoltaic (FPV) plant at Afobaka and government plans to achieve greater energy independence, off-grid solar installations are forecasted to increase in scale.
- International partnerships, such as those with the Inter-American Development Bank (IDB), aim to promote sustainable off-grid solutions.
- The success of microgrid projects and future expansion into regions currently without reliable power will further drive demand for off-grid solar systems.

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

Current On-Grid Solar Demand in Suriname:

- The current on-grid solar demand in Suriname is relatively modest, with solar energy contributing approximately 0.5% to the national grid's power supply.
- The country's primary sources of electricity generation include hydropower and thermal generation (combining for nearly 99%).
- However, with Suriname's commitment to increasing the share of renewable energy in its grid, the demand for grid-tied solar installations is expected to rise.
- The government, along with Energiebedrijven Suriname (EBS), has been focusing on small-scale solar farms and rooftop solar projects to complement the existing energy mix.

Future On-Grid Solar Demand in Suriname:

- The future on-grid solar demand is projected to grow significantly, with Suriname aiming to achieve a 10% solar contribution to its grid in the near future.
- The government's strategic goals for 2060 include transitioning to a fully renewable electricity market.
- To meet these objectives, the country is investing in large-scale solar projects, such as the planned Floating Photovoltaic (FPV) plant at the Afobaka Hydropower Plant.
- International partnerships, such as those with the Inter-American Development Bank (IDB), will also play a crucial role in expanding on-grid solar capacity and meeting future demand.

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

A Solar System Installers in Suriname working in Suriname typically earns around 1,054.56 USD per year. This can range from the lowest average salary of about 555.88 USD to the highest average salary of 1,597.96 USD.

Population of the country

The current population of Suriname is 635,776.

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

Estimate for Factory Rent:

- Monthly Average Warehouse Rental Cost:
- Here are the warehouse rents in the Suriname area from the RE/MAX listings:
- Kwattaweg
- Price: \$1,250 / month
- Details:
- Warehouse area: 750 m²
- Features 5 office spaces, a kitchen, and a bath/toilet.
- Easily accessible for staff and trucks, with a large roller door suitable for container access.

Key Components of Administrative Costs:

- Salaries and Wages: A Solar Photovoltaic Installer working in Suriname typically earns around 1,054.56 USD per year. This can range from the lowest average salary of about 555.88 USD to the highest average salary of 1,597.96 USD.

Monthly Rents for Office Space:

- The average rental rate for office space is approximately \$11.20 per square meter per month, which is about \$1.04 per square foot.

A summary of the energy infrastructure

Electricity Generation:

- In 2022, electricity generation in Suriname was nearly evenly divided between fossil fuels and low-carbon sources.
- Slightly more than half, around 52%, was generated from fossil fuels, while the remaining 48% came from clean energy sources.

Transmission & Distribution:

- In Suriname, the transmission of electricity is managed primarily by EBS (Energie Bedrijven Suriname), the state-owned utility company responsible for the generation, transmission, and distribution of electricity in the country.
- EBS operates a network of transmission lines that transport high-voltage electricity from generation plants to substations.
- The transmission lines are primarily designed to handle voltages of 69 kV, 110 kV, and some sections at 220 kV.

Energy Access:

- Suriname has nearly 100% access to electricity for its population.

Energy Exports:

- In 2022, Suriname's exports of refined petroleum totaled \$279 million.
- The primary destinations for these exports included Guyana (\$133 million), Belgium (\$33 million), the United States (\$18.4 million), France (\$17.9 million), and Barbados (\$12.1 million).

Some of the government regulations surrounding solar panel production

Draft Green Paper (2012):

- While Suriname currently lacks a comprehensive legislative framework for electricity and renewable energy, the 2012 draft green paper outlines guidelines for future electricity legislation, addressing aspects such as energy security, institutional provisions, cost recovery,

and environmental impacts related to tariff setting by the national utility (EBS).

Electricity Act 2016:

- In Suriname, the regulations for solar panels and renewable energy development are shaped by the 2016 Electricity Act, which provides a framework for renewable energy integration.
- This law encourages the use of renewable sources like solar and wind to diversify the energy matrix and reduce dependency on fossil fuels.
- Solar energy is seen as particularly useful for off-grid areas such as the hinterland, where solar mini-grids provide a clean alternative to diesel generators, offering reliable electricity for remote communities.

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

Tax-Based Incentives:

- Tax holiday: A nine-year corporate income tax holiday, which can be extended by an additional year for large investments of at least US\$13 million.

NAMA (Nationally Appropriate Mitigation Action) project:

- The NAMA (Nationally Appropriate Mitigation Action) project in Suriname focuses on 'Off-grid Renewable Energy Solutions in Rural Suriname.' Launched in 2021, the project aims to enhance electricity access in rural areas through the implementation of hybrid mini-grids that integrate renewable energy sources.
- Key details of the NAMA project include:
- Estimated Cost: The total estimated cost for implementation is approximately \$12.99 million.

- Emission Reductions: The project is expected to achieve around 0.02457 million tonnes of CO2 equivalent emissions reductions over its lifetime.

Notable solar projects in the country (installed and projected)

Current Projects:

- Solar Energy Project in Suriname:
- Capacity: 5 MW
- Location: Upper reaches of the Suriname River
- Target Villages: Seven large villages
- Number of Households Served: 2,500
- Total Residents Served: 15,000
- Average Consumption per Household: 300 watts per day

Future Projects:

- 45 megawatt-peak Solar Power Plants:
- Capacity: Over 45 megawatt-peak (MWp)
- Location: Suriname and/or Trinidad and Tobago
- Households Served: Over 14,000 average households
- Details: The collaboration partners involved in this initiative are Staatsolie Maatschappij Suriname N.V. and the National Energy Corporation of Trinidad and Tobago Limited.

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

Company Name: Elgawa

- Location: Paramaribo, Suriname
- Website: elgawa.com
- Services and Products:

- Services: Maintenance of electrical and solar systems, electric boilers, diesel and gas generators, variable frequency drives, electric motors, medical and security equipment, air-conditioning, and ventilation systems. The company also offers repair and maintenance services for boilers, water installations, generators, and electrical installations.
- Products: Air conditioners, electrical materials, generators, technical materials, and Blygold corrosion protection. Elgawa is a licensed distributor of well-known brands like Generac, Trane, Legrand, Fronius, ABB, and Vita.

Company Name: Solar Power Solutions Pvt Ltd

- Location: Paramaribo, Suriname

- Website: <http://solarpspl.com>

- Services and Products:

- Services: Solar installation, system design, commissioning, after-sales support, and manufacturing. Specializes in solar EPC (Engineering, Procurement, and Construction) services for residential, commercial, and industrial clients.



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

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

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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