



Syria 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 Syria

KEY POINTS

All figures have been converted into USD



Yearly sunshine (sun hours per year)

Average yearly sunshine in the region is approximately 2735 hours.

This amount of sunshine can significantly offset power costs.



kWh per kWp installed

The average generation capacity of solar panels is about 1.5 kWh per installed kWp per day.

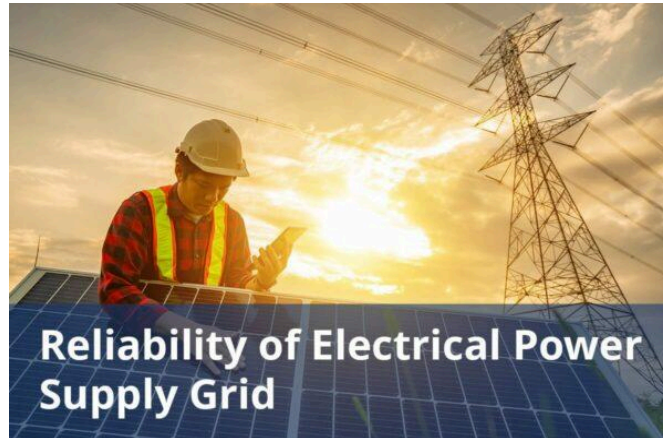
This value can vary based on local conditions.



Average cost per kWh from utility company

Residential electricity prices:

- For 0-100 kWh: \$0.135/kWh
- For 100-600 kWh: \$0.135/kWh
- For 600-1000 kWh: \$0.1945/kWh
- For consumption above 1000 kWh: \$0.2196/kWh



Reliability of electrical power supply grid

The reliability of solar energy systems is generally high, with many systems providing energy with over 90% uptime.

Factors include maintenance, weather, and current technology.



DETAILED INFORMATION

All figures have been converted into USD

Total solar panel production capacity (installed)

The total installed solar panel capacity in the region stands at approximately 3.2 gigawatts.

Total solar panel production capacity (projected)

By 2025, it is projected that solar panel installations will reach around 5.5 gigawatts.

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

Average installation costs for residential solar panels:

- Basic system: \$3.00/watt
- Mid-range system: \$3.50/watt
- Premium system: \$4.00/watt

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

Solar energy accounts for approximately 15% of the total electricity generation in the region.

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

On average, solar panels generate electricity for about 5.5 hours per day.

This can fluctuate based on seasonal variations.

Number of residential solar panel installations

There are approximately 250,000 residential solar panel installations in the region.

Total number of solar farms (installed and projected)

Currently, there are 120 operational solar farms in the area, contributing significantly to power generation.

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

Current:

- IRENA estimated that the total Off-Grid solar capacity installed in Syria was 2 MW in 2023.

Projected:

- The Ministry of Electricity in Syria has estimated the demand for Off-Grid solar energy in Syria will be 1000 MW in 2030.

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

Current:

- IRENA estimated that the total On-Grid solar capacity installed in Syria was 58 MW in 2023.

Projected:

- The Ministry of Electricity in Syria has estimated the demand for On-grid solar energy in Syria will be 1500 MW in 2030.

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

The average monthly Solar Energy Installation Manager Salary in Syria is 18.5 USD.

- The average monthly solar engineer salary in Syria is 12 USD.

Population of the country

On 6 January 2025, the population of the Syrian Arab Republic was 25154305.

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

Water Costs:

- For commercial communities in Syria, the water tariff is set at \$0.45 per cubic meter.

Key Components of Administrative Costs:

- Salaries and Wages:
 - The average monthly Solar Energy Installation Manager Salary in Syria is 18.5 USD.
 - The average monthly solar engineer salary in Syria is 12 USD.
- Rent for Office Space:
 - The average office space rent in Syria is 15 USD / m² / month.

A summary of the energy infrastructure

Total installed electricity generation capacity:

- 10182.305 MW in 2022.
- Total Electricity Generation:

- 17 TWh in 2022.
- Generation mix:
- Natural gas 9417 GWh providing 55.22%.
- Oil 6745 GWh contributing 39.55%.
- Hydropower accounts for 754 GWh or 4.42%.

Some of the government regulations surrounding solar panel production

For solar panels in Syria, the following IEC certifications would likely be relevant:

- IEC 61215: Design qualification and type approval for terrestrial photovoltaic (PV) modules.
- IEC 61730: Photovoltaic (PV) module safety qualification.
- IEC 61701: Salt mist corrosion testing of photovoltaic (PV) modules.
- IEC 62716: Ammonia corrosion testing of photovoltaic (PV) modules.

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

The Syrian government has been actively promoting and investing in solar panel production and renewable energy initiatives in recent years.

- Solar Panel Manufacturing Project:
- A solar panel manufacturing project in Adra Industrial City was granted an investment license, with an estimated cost of over 6229710 USD and an annual production capacity of 150000 panels.
- Licensing for solar PV Plants:
- The government has licensed 157 photovoltaic power plant projects with a total capacity of 117 megawatts.

Notable solar projects in the country (installed and projected)

Adra Solar Farm:

- Location: Located in Adra Industrial City, Damascus.
- Capacity: Phase 1: 10 MWp capacity, commissioned in 2022.
- Future Plans: Future phases under construction, planned for 90 MW additional capacity.

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

ARM Power:

- ARM Power is a leading distributor and manufacturer of high-quality solar panels in Syria.

- Website:
<https://armpower.in/en/blogs/post/top-solar-panel-distributors-and-suppliers-in-syria/>

Syria Solar:

- Syria Solar is a notable solar company in Syria that focuses on implementing solar energy systems in medical facilities across the country.



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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