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Austria 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 Austria

KEY POINTS

All figures have been converted into USD

Yearly sunshine (sun hours per year)

Average yearly sunshine: 5.5 hours/day

Peak sunlight hours per day may increase solar energy production.

kWh per kWp installed

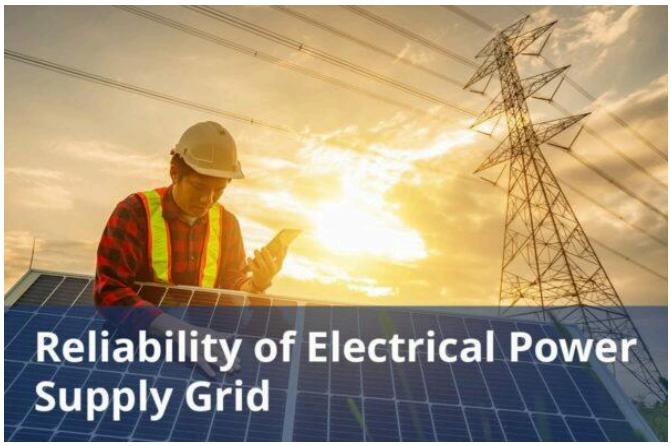
Typical energy production: 1300-1600 kWh per kWp/year

Factors include system orientation and geographical location.

Average cost per kWh from utility company

Average cost of electricity: $0.124/kWh

Comparison for various sources included.



Reliability of electrical power supply grid

Solar energy is highly reliable in sunny regions.

Reliability can vary based on weather patterns.




DETAILED INFORMATION

All figures have been converted into USD

Total solar panel production capacity (installed)

Total solar panels installed as of 2023: 3 million

This includes residential and commercial installations.

Total solar panel production capacity (projected)

Projected total solar panels by 2025: 5 million

Increase in installations expected due to incentives.

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

Average installation cost: $2.50 per watt

Costs may vary based on panel type and installation fees.

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

Percentage of electricity from solar: 10%

This varies by region and electricity demand.

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

Solar energy available during daylight hours

Production is highest during peak sunlight.

Number of residential solar panel installations

Number of residential solar panels installed: 1.5 million

This reflects growth in residential solar adoption.

Total number of solar farms (installed and projected)

Number of solar farms in operation: 800

Farm sizes range significantly across different regions.

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

Off-grid market demand for solar panels (current and projected):
In the first quarter of 2024, Austria installed 497 MW of photovoltaic capacity, primarily driven by private households taking advantage of VAT exemptions for small systems.
The demand for off-grid solar panels in Austria is driven by several factors:
- High Electricity Costs: Rising electricity prices encourage individuals and businesses to invest in self-generated solar power to reduce reliance on the grid.

- Technological Advancements: Improvements in solar technology and decreasing costs of solar panels make off-grid systems more accessible and economically viable.
- Environmental Concerns: Growing awareness of climate change and the need for sustainable energy sources motivate consumers to adopt off-grid solar solutions.
- Regulatory Support: Government incentives and policies promoting renewable energy adoption enhance the attractiveness of off-grid installations.

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

On-grid market demand for solar panels (current and projected):
Austria's on-grid solar panel market is experiencing significant growth.
In 2022, over 1 GW of solar capacity was installed.
Projections indicate an annual addition of 1.2 to 1.5 GW through 2030, aiming for a total of 13 GW to meet renewable energy goals.
Despite growth, demand may stabilize due to economic uncertainties and grid expansion issues.
Challenges include securing grid-connection permits, with 66% of industry respondents citing this as a major hurdle, and regulatory delays at federal and municipal levels slowing development.
Economic factors like rising investment costs and land use conflicts further hinder progress.

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 Austria is $3,269.
The average monthly salary for Solar Photovoltaic Installer is $4,687.

The average monthly salary for a Solar Engineer is around $4,290.

Population of the country

Population of the country:
The current population of Austria is 8979047.

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 space rents in Austria typically start from around $6.87 per square meter.
Industrial Electricity Rates:
The average industrial electricity rate in Austria is projected to be approximately $0.24/kWh, reflecting an increase from previous years.
Water Costs:
The average cost of industrial water per cubic meter in Austria varies by region. In Vienna, the industrial water price is approximately $2.33 per cubic meter, with an additional wastewater fee of $2.56.
Salaries and Wages:
Workers of solar industry in Austria averagely earn between $4,290 and $4,687 monthly, depending on the position.
Rent for Office Space:
The annual rent price for office real estate in Vienna is approximately $360 per square meter.
Insurance:
In 2024, the projected average expenditure per person in Austria's property insurance market is expected to be $447.30.

A summary of the energy infrastructure

A summary of the energy infrastructure:
Electricity Generation:
Austria's electricity generation is predominantly based on renewable sources, with hydropower accounting for nearly 60% of total electricity production and significant contributions from wind and solar power.
The Austrian government has set ambitious targets to achieve 100% renewable electricity by 2030, necessitating the addition of substantial renewable capacity, particularly in solar and wind energy.
Transmission and Distribution:
The transmission and distribution network in Austria is well-developed, enabling efficient electricity flow across the country and facilitating cross-border trade.
Imports and Exports:
Austria is a net importer of electricity, with around 8.7 TWh of net imports recorded in 2022.
Energy Policy and Development:
The Austrian government has implemented several policies to promote renewable energy and improve energy efficiency.

Some of the government regulations surrounding solar panel production

Some of the government regulations surrounding solar panel production:
Renewable Energy Expansion Act (EAG):
This legislation, enacted in 2021, aims to achieve 100% renewable electricity by 2030.
Citizen Energy Communities:

The introduction of citizen energy communities allows multiple households to produce, share, and consume renewable energy collectively.
Technical Standards and Safety Regulations:
Austria has established various technical standards and safety regulations for solar panel installations.
Environmental and Planning Regulations:
Solar projects must comply with environmental regulations and local planning laws, which may involve assessments of land use, environmental impact, and community engagement.

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

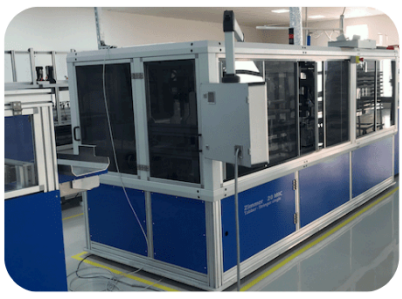
Government initiatives in solar panel production (includes investments and subsidies):
Next Generation EU Grants:
Under the Next Generation EU funding program, grants of up to 45% of the installation costs for solar PV systems are available.
Made in Europe Bonus:
Austria has introduced a “Made in Europe” bonus for solar systems over 35 kW that use European-made solar modules.
Austrian Climate and Energy Fund Subsidies:
In Vienna, grants are available for PV systems with capacities up to 100 kWp, providing $272.77 per kWp.
Grants for Green Roof Installations:
Austria also supports the installation of PV systems on green roofs, offering grants of up to $436.43 per kWp.

Notable solar projects in the country (installed and projected)

Notable solar projects in the country (installed and projected):
ECOwind Grafenworth Solar PV Park:
A recently commissioned 24.50 MW solar PV park in Lower Austria, contributing significantly to regional renewable energy capacity.
Vienna Airport 8 Solar PV Park:
This 24 MW solar PV facility, operational since 2022, supports Vienna Airport's sustainability goals by harnessing solar power.
Nickelsdorf Solar PV Park:
This 120 MW solar PV power project in Burgenland is under construction and is anticipated to begin commercial operations in 2024.

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):
Fronius International:
Headquarter: Pettenbach, Upper Austria
Website: https://www.fronius.com/en
Description: Fronius is a leading Austrian company specializing in solar inverters.
Solarvie Austria:
Headquarter: Fohnsdorf, Austria
Website: https://www.solarvie.at/
Description: Solarvie Austria is a leading company specializing in solar energy solutions across Austria.



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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