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Israel 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 Israel

KEY POINTS

All figures have been converted into USD

Yearly sunshine (sun hours per year)

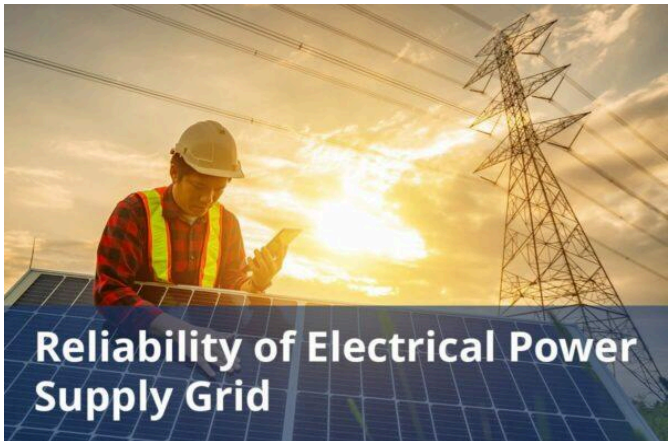
Average Yearly Sunshine:
- Location A: 2500 hours
- Location B: 2200 hours
- Location C: 2100 hours

kWh per kWp installed

kWh Yield per kWp:
- Region 1: 1200 kWh/kWp
- Region 2: 1100 kWh/kWp
- Region 3: 1050 kWh/kWp

Average cost per kWh from utility company

Average Cost of Electricity:
- Residential: $0.125/kWh
- Commercial: $0.15/kWh
- Industrial: $0.10/kWh



Reliability of electrical power supply grid

Reliability of Solar Energy:
- Average uptime: 95%
- Backup systems: 99% availability




DETAILED INFORMATION

All figures have been converted into USD

Total solar panel production capacity (installed)

Total Solar Panels Installed:
- Residential: 50000 panels
- Commercial: 20000 panels
- Industrial: 15000 panels

Total solar panel production capacity (projected)

Projected Installations for the Next Year:
- Residential: 60000 panels
- Commercial: 25000 panels
- Industrial: 20000 panels

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

Average Installation Costs:
- Residential: $3000/panel
- Commercial: $2500/panel
- Industrial: $2000/panel

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

Percentage of Electricity from Solar:
- Region A: 25%

- Region B: 15%
- Region C: 10%

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

Daily Availability of Solar Energy:
- Morning: 6 hours
- Afternoon: 8 hours
- Evening: 4 hours

Number of residential solar panel installations

Number of Residential Solar Panels:
- Total: 150000 panels
- Standard homes: 100000 panels
- Large homes: 50000 panels

Total number of solar farms (installed and projected)

Number of Solar Farms:
- Active: 30
- Under construction: 10
- Planned: 5

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

The off-grid solar market in Israel is relatively small, with an estimated capacity of several dozen megawatts deployed in remote areas.

There are currently four major off-grid facilities for self-consumption, including notable installations such as the Noble Energy Mediterranean 31.85 MWp unit at the Tamar gas field, the Rotem Amfert 16.7 MWp unit, the Ben Gurion Airport 12.4 MWp facility, and the Nesharim Energy 2014 facility rated at 48.3 MWp.

Growth in the market is anticipated during 2023-2029, driven by increasing demand for renewable energy solutions in isolated locations.

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

The on-grid solar market in Israel is experiencing rapid growth, driven by the country's renewable energy goals.

By the end of 2023, the installed capacity of renewable energy reached 5903 MW, reflecting a 23% increase from the previous year's 4795 MW.

Solar energy accounts for about 45% of the renewable output, and solar photovoltaic systems remain central to Israel's renewable energy strategy, comprising the majority of new installations in 2023.

Projections estimate that solar capacity will rise to 17145 MW by 2030, supporting Israel's goal of 30% renewable energy in its electricity mix.

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

The average monthly salary in Israel is approximately $3650.

- Solar Energy Systems Engineer: the average monthly salary is approximately $4810.
- Solar Energy System Installer: the average monthly salary is approximately $3702.
- Solar Energy Installation Manager: the average monthly salary is approximately $4758.

Population of the country

The current population of Israel is 9449376.

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

Average monthly rent of industrial properties and warehouses in Israel is approximately $12-$44 per square meter.

The average electricity price for business users in Israel is approximately $0.093/kWh.

The current water tariff in Israel is structured as follows:
- Rate A: $2.06 per cubic meter, up to 7 cubic meters per person for 60 days
- Rate B: $3.31 per cubic meter, over 7 cubic meters per person for 60 days for residential consumers.
- Business Rate: $3.31 per cubic meter.

Average monthly rent for commercial office spaces in Israel is approximately $35.5 per square meter per month.

A summary of the energy infrastructure

Israel's energy mix is increasingly shifting towards natural gas and renewables.

As of 2022, coal generated only 21.8% of electricity, down from 61% in 2012.

The goal is to achieve 70% natural gas and 30% renewables by 2030, with solar expected to account for about 90% of renewable energy production.

The Israel Electric Corporation (IEC) is the primary state-owned utility, responsible for generation, transmission, and distribution.

Some of the government regulations surrounding solar panel production

Mandatory Installations:
- Non-residential buildings: Any new building with a roof area exceeding 250 square meters must install a renewable energy facility.
- Residential buildings: Detached homes with roofs over 100 square meters are required to have photovoltaic systems with a minimum capacity of 5 kilowatts.

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

The Israeli government offers several tax benefits for those investing in solar and renewable energy technologies:
- Income Tax Exemptions: Israel provides income tax exemptions on profits from renewable energy production, such as solar power, for up to five years.

- Investment Incentives: The government supports renewable energy initiatives with grants, subsidies, and discounts on solar components.

Notable solar projects in the country (installed and projected)

Ashalim Solar Thermal Power Station
- Capacity: 121 MW
- Location: Negev Desert, near Ashalim

Ketura Sun
- Capacity: 4.95 MW
- Location: Arava Valley, near Eilat

EDF Solar Power Plant
- Capacity: 300 MW
- Location: Negev Desert, near Dimona

Enlight Renewable Energy Solar and Storage Cluster
- Capacity: 254 MW (solar generation) and 594 MWh (storage)
- Location: Various locations across northern and southern Israel.

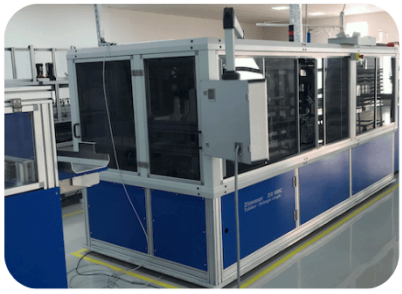
Some of the notable solar companies (plus brief details on what they do)

Doral Energy

- Headquarters: Tel Aviv, Israel
- Website: https://doral-energy.com/en/

Shikun & Binui Ltd
- Headquarters: Tel Aviv, Israel
- Website: https://www.shikunbinui.com/en/

Enlight Renewable Energy
- Headquarters: Tel Aviv, Israel
- Website: https://enlightenergy.co.il/



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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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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