

Annual price of photovoltaic modules





Overview

As of 2025, the average cost of residential solar panels in the U.S. is between \$15,000 and \$25,000 before incentives. This typically translates to about \$2.50 to \$3.50 per watt of installed capacity (more on price per watt below). How much does a photovoltaic module cost?

Mainstream Modules: Average price of €0.11/Wp, stable compared to September but 21.4% lower than January 2024. Low-Cost Modules: Average price of €0.065/Wp, a 7.1% decrease from September and 27.8% from January 2024. These trends are exerting mounting pressure on the photovoltaic sector.

How much does a photovoltaic panel cost?

Mainstream Photovoltaic Panels: Average price of €0.10/Wp, down 9.1% month-on-month. Low-Cost Photovoltaic Modules: Average price of €0.060/Wp, a decrease of 7.7% compared to the previous month. These figures underscore the significant pressures in the photovoltaic market, as price reductions strain margins to unprecedented levels.

What factors affect the cost of photovoltaic modules?

1. Cost Factors Driving Price Fluctuations The cost of photovoltaic modules is primarily composed of solar cells, glass, encapsulation film, and labor expenses.

Why do solar modules cost so much?

However, as the primary cost component of photovoltaic modules, the price of solar cells plays a decisive role in module pricing. Due to the oversupply of polysilicon in earlier periods, prices have been under sustained pressure since 2023, even falling below cost levels in the first half of 2024.

What is the PV module price index?

The PV Module Price Index tracks wholesale pricing and supply of crystalline-



silicon modules that have fallen out of traditional distribution channels, and as a result are listed for resale on the EnergyBin exchange.

How are photovoltaic module price adjustments affecting industry players?

The current round of photovoltaic module price adjustments has imposed significant operational pressure on industry players. Leading companies, with their high R&D costs, are at a disadvantage in the price competition. Meanwhile, small and medium-sized enterprises find it challenging to endure prolonged price wars.



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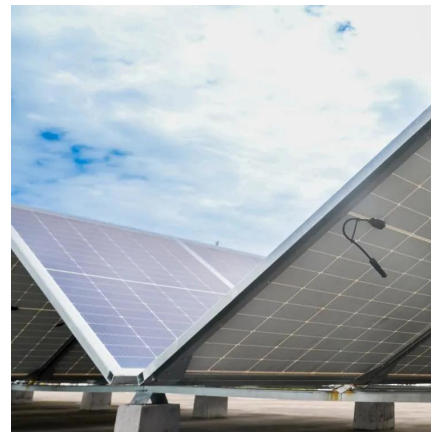


Record numbers of solar panels were shipped in the ...

U.S. shipments of solar photovoltaic (PV) modules (solar panels) rose to a record electricity-generating capacity of 28.8 million peak kilowatts ...

Updated report and data illustrate distributed solar pricing and ...

We are pleased to announce the release of the latest edition of Berkeley Lab's Tracking the Sun annual report, describing trends for distributed solar photovoltaic (PV) ...



Utility-Scale PV , Electricity , 2023 , ATB , NREL

PV system ILR choice is based on an optimization exercise to maximize profits (or offer the lowest energy price), trading-off the extra cost and increased clipping ...

2024 PV Module Price Index

The PV Module Price Index tracks wholesale pricing and supply of crystalline-silicon modules that have fallen out of traditional distribution ...



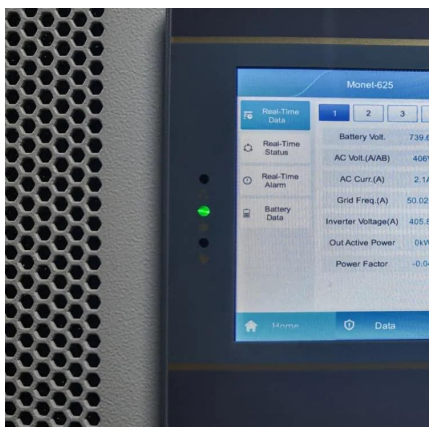
Solar Photovoltaic System Cost Benchmarks

The U.S. Department of Energy's solar office and its national laboratory partners analyze cost data for U.S. solar photovoltaic systems to develop cost ...



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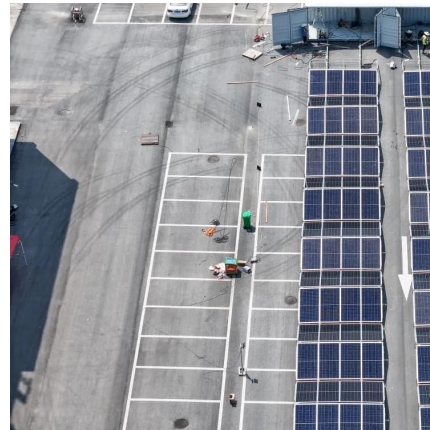
Solar (photovoltaic) panel prices

IRENA presents solar photovoltaic module prices for a number of different technologies. Here we use the average yearly price for technologies ...



PV Index: Resilient market and year-end pricing ...

The European PV market closed 2024 on a resilient note despite slight seasonal adjustments. The December edition of the PV Index of ...



Latest Solar Price Chart and Dashboard Carbon Credits

Solar Pricing and Price Charts. Solar prices across the world's most active residential, utility, and commercial PV (Photovoltaics) markets.

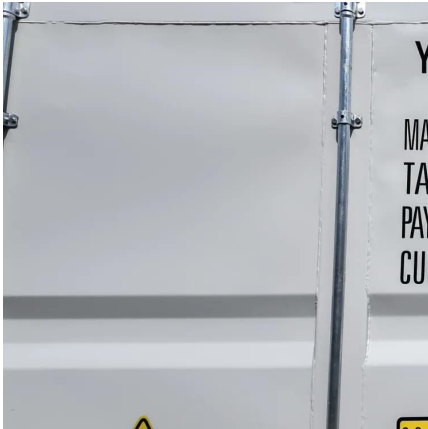
Solar Market Insight Report 2024 Year in Review - SEIA

3.1. Residential PV 4,742 MWdc installed in 2024, 1,155 MWdc in Q4 2024 Down 31% from 2023
The residential solar market experienced its first annual contraction since ...



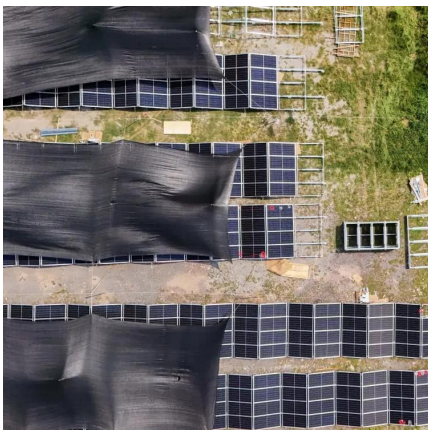
[Photovoltaic Module Prices 2025: Updated Data](#)

Prices for photovoltaic modules in 2024 continue to fall. According to the monthly index published by Germany's pvXchange Trading, the ...



Analysis Of Photovoltaic Module Price Trends And Industry ...

In conclusion, photovoltaic modules prices are expected to remain in a low adjustment phase during 2025-2026. However, the likelihood of significant price drops is ...



2024 PV Module Price Index

The PV Module Price Index tracks wholesale pricing and supply of crystalline-silicon modules that have fallen out of traditional distribution channels, and as a result are listed for ...

Italy solar photovoltaic industry

Average price of solar PV modules in Italy 2009-2023 Average price of standard crystalline silicon solar photovoltaic modules in Italy from 2009 to 2023 (in euros per watt)





Photovoltaics

Panel prices dropped by a factor of 4 between 2004 and 2011. Module prices dropped by about 90% over the 2010s. In 2022, worldwide installed PV capacity increased to more than 1 ...

Solar (photovoltaic) panel prices vs. cumulative capacity

Solar (photovoltaic) panel prices vs. cumulative capacity Learning curve for solar panels. This data is expressed in US dollars per watt, adjusted for inflation. ...



2025 Solar Panel Costs: Ultimate Guide to Pricing and Savings

1 All prices do not include sales tax. The account requires an annual contract and will renew after one year to the regular list price.

[Annual Solar Photovoltaic Module Shipments Report](#)

This report includes summary data for the photovoltaic industry from annual and monthly respondents. Data include manufacturing, imports, and exports of modules in the ...



[Residential PV , Electricity , 2024 , ATB , NREL](#)

Residential PV pricing and capacities are quoted in kW DC (i.e., module rated capacity) unlike other generation technologies (including utility-scale PV), which are quoted in kW AC. This is ...



Photovoltaic Price Index

Only tax-free prices for photovoltaic modules are shown. The prices stated reflect the average offer prices in retail and on the European spot market (customs cleared).



[ITRPV says solar module prices fell 50% in 2023](#)

German engineering association VDMA has published the annual ITRPV report, now in its 15th edition. The report reveals that module ...





2025 Solar Panel Costs: Ultimate Guide to Pricing and Savings

As of 2025, the average cost of residential solar panels in the U.S. is between \$15,000 and \$25,000 before incentives. This typically translates to about \$2.50 to \$3.50 per ...



Global average price for solar PV modules 2024, Statista

1 All prices do not include sales tax. The account requires an annual contract and will renew after one year to the regular list price.

Global PV installations have seen explosive growth in ...

The market price of PV module has fallen sharply to less than 15 cents/W due to global overproduction, and the advantage over conventional ...



[Photovoltaic Module Prices 2025: Updated Data](#)

Prices for photovoltaic modules in 2024 continue to fall. According to the monthly index published by Germany's pvXchange Trading, the downward trend persists, driven ...



Executive summary - Solar PV Global Supply Chains

Global capacity for manufacturing wafers and cells, which are key solar PV elements, and for assembling them into solar panels (also known as modules), exceeded demand by at least ...



Solar (photovoltaic) panel prices

IRENA presents solar photovoltaic module prices for a number of different technologies. Here we use the average yearly price for technologies 'Thin film a-Si/u-Si or ...

India PV Module Intelligence Brief , Q4 2024

Recent reports India PV Module Intelligence Brief , Q1 2025 This report encapsulates quarterly trends in module demand and supply, import ...





[Price of photovoltaic modules worldwide, Statista](#)

Global annual price change of photovoltaic modules from 2005 to 2010 (in U.S. dollars per watt) You need a Statista Account for unlimited access

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<https://www.talbert.co.za>