

SolarInvert Energy Solutions

Prices of photovoltaic modules from mainstream manufacturers





Overview

The cost of a solar photovoltaic panel module typically ranges from 0.50 to 1.00 USD per watt (1), with the average price being around 0.75 USD per watt; various factors influence this price (2), including efficiency, brand reputation, and technology type; bulk purchases often lead to significant discounts (3), making it financially advantageous for larger installations; installation costs are additional and can vary widely, typically constituting 20 to 50 percent of the total system cost (4). 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.

Where did photovoltaic cost data come from?

Photovoltaic cost data between 1975 and 2003 has been taken from Nemet (2009), between 2004 and 2009 from Farmer & Lafond (2016), and since 2010 from IRENA. Prices from Nemet (2009) and Farmer & Lafond (2016) have been converted to 2024 US\$ using the US GDP deflator, to account for the effects of inflation.

How efficient is a residential PV system in 2024?

The representative residential PV system (RPV) for 2024 has a rating of 8 kW dc (the sum of the system's module ratings). Each module has an area (with frame) of 1.9 m 2 and a rated power of 400 watts, corresponding to an



efficiency of 21.1%.

How efficient are photovoltaic modules in 2025?

But let's take a closer look at the figures recorded in January 2025: Photovoltaic modules with monocrystalline or bifacial HJT cells, N-type/TOPCon or xBC (Back Contact) and their combinations, with efficiencies above 22.5%.

How much does a module cost in 2024?

High-Efficiency Modules: Average price of €0.14/Wp, down 6.7% from September 2024 and 39.1% from January 2024. 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.



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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 'Thin film a-Si/u-Si or ...

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Global solar module prices mixed on varying demand expectations - pv

In a new weekly update for pv magazine, OPIS, a Dow Jones company, provides a quick look at the main price trends in the global PV industry.



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Solar module prices spiked in early 2025 -

Thanks to Anza Renewables for sharing its Q1 2025 Solar Module Pricing Insights Report. The data in this report represents median DG list prices from over 35 module vendors ...

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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 benchmarks to measure progress ...

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Low-price range for modules stabilizes amid mixed polysilicon prices

The Latin American market sees a USD 0.09-0.10/W price. In the U.S., prices are impacted by policy changes, resulting in weaker project activities. Manufacturers are delivering ...

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Due to the continuous rise in raw material prices, the ...

Photovoltaic modules: prices remain stable overall The mainstream transaction price of monocrystalline 166MM photovoltaic modules is around USD0.29/W, ...



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PV module prices at crossroads - pv magazine USA

The trajectory of module prices - whether rising, stagnant, or falling - depends largely on national and





international demand in the coming months. Almost any scenario is ...

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Solar Photovoltaic Prices, PV modules, PV glass, PV cells, PV ...

Solar cell prices is expected to remain firm amid policy direction. Supported by rising cost change and producers' willingness, cell prices are expected to remain above the average cash cost ...



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Solar module prices may reach \$0.10/W by end 2024 - pv ...

Solar module prices may approach the threshold of \$0.10/W by the end of 2024 or eventually in 2025, according to Tim Buckley, director of Australia-based think tank Climate ...

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Solarbe PV Price Index: Overall Pressure on the Industrial Chain ...

This week, module prices remain unchanged. For ground-mounted power stations, TOPCon 210 bifacial modules are priced at 0.660 yuan/W, TOPCon



rectangular bifacial ...

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P-type Solar Cells Price Increase as Market Demand Recovers

For bifacial G12-HJT modules, mainstream manufacturers' prices are in the 0.65-0.80 RMB/W range. Driven by policy demand and the peak season starting in some overseas ...



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How much does a solar photovoltaic panel module cost?

Understanding the dynamics that affect solar panel pricing is imperative for making informed purchasing decisions. Numerous factors contribute to the





fluctuations in cost, ranging ...

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Photovoltaic Module Prices 2025: Updated Data

Mainstream Photovoltaic Panels: Average price of EUR0.10/Wp, down 9.1% month-on-month. Low-Cost Photovoltaic Modules: Average price of

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Photovoltaic (PV) Module Technologies: 2020 Benchmark ...

Photovoltaic (PV) module prices are a key metric for PV project development and growth of the PV industry. The general trend of global PV module



pricing has been a rapid and steep ...

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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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Moderate accumulation of module inventory, solar cell prices in ...

[SMM Silicon-based PV Morning Meeting Summary: Minor accumulation of module inventory, solar cell prices in the doldrums in the short term] The mainstream ...



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PV module prices at crossroads - pv magazine ...

This reclassification has altered pricing. For instance, the January price point for mainstream modules includes several performance classes ...



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Solar module prices hovering at alltime lows

A growing number of PV module manufacturers are threatening to shut down their production facilities in Europe due to the ongoing low-price ...



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March 4, 2024 By Jenny Chase, Solar, BloombergNEF The photovoltaic industry added about 444 gigawatts of new capacity in 2023, a 76% growth on 2022 build. Prices of solar modules are at ...

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Top 10 Global Photovoltaic Module Manufacturers in 2025

Based on the 2025 market shipment forecast and technology analysis, this report provides an in-depth overview of the world's top 10 photovoltaic module



manufacturers to help enterprises ...

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Prices rising across China's PV supply chain, says ...

Taiwan-based research firm EnergyTrend says market optimism in China has driven up solar module prices, while production of modules, cells, ...

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Solar Photovoltaic Prices, PV modules, PV glass, PV ...

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Market Analysis January 2025

The trajectory of module prices - whether rising, stagnant, or falling - depends largely on national and international demand in the coming months. ...

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Market Analysis January 2025

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Solar blog & Photovoltaic guide

Monitoring the price development of solar modules is of crucial importance for investors, manufacturers and other players in the solar energy ...

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