



# Unit price of solar power generation and energy storage in the United States

How much does solar cost per kilowatt (kW)? The recently released data examine trends from past years. Discussion of additional cost information and trends is available in our Short-Term Energy Outlook. Solar Average U.S. solar construction costs across all solar panel types increased 1.7% to \$1,588 per kilowatt (kW) in . What percentage of new residential solar capacity is paired with storage? Over 28% of all new residential solar capacity was paired with storage in , compared to under 12% in . California's shift in net metering policy and state incentives for solar+storage in other markets have driven attachment rates up in recent quarters. How much did solar power cost in ? Key findings from this year's report include: 18.5 GW AC of new utility-scale PV capacity came online in , bringing cumulative installed capacity to more than 80.2 GW AC across 47 states. Installed costs continued to fall in . Relative to , capacity-weighted averages decreased by 8% to \$1.43/W AC (or \$1.08/W DC). How much does a solar system cost? An average-sized residential system has dropped from a pre-incentive price of \$40,000 in to roughly \$26,880. Recent utility-scale PPA prices range from \$16/MWh - \$35/MWh, competitive with all other forms of generation. Over the past 10 years, solar prices have declined. However, for the past 3 years, prices have been volatile. How many solar installations are there in the United States? In that same year, solar energy accounted for 55 percent of new electricity-generating capacity additions in the North American country. Of the total solar capacity installed in the U.S., over 26 percent corresponds to residential installations. This segment has grown in recent years, reaching some 4.7 million installations in . What is the average solar market value in ? Solar's average market value was lowest in CAISO (\$27/MWh), the market with the greatest solar generation share, and highest in ERCOT (\$67/MWh). Newer solar projects had greater market value in than their generation costs, yielding \$1.1 billion in benefits. Solar Photovoltaic System Cost Benchmarks Each benchmark system is representative of what is currently being installed in the United States and is defined in sufficient detail to assess the impact of system size, module efficiency, overhead, and many other factors on cost. Utility-Scale Solar, Edition: Empirical Trends in Deployment Solar's average energy and capacity value (i.e., ability to offset costs of other power generation sources) across the U.S. was \$45/MWh in . Solar's average market value was lowest in U.S. Solar Photovoltaic System and Energy Storage Cost We show bottom-up manufacturing analyses for modules, inverters, and energy storage components, and we model unique costs related to community solar installations. We also Solar Industry Research Data - SEIA Solar energy in the United States is booming. Along with our partners at Wood Mackenzie Power & Renewables, SEIA tracks trends and trajectories in the solar industry that demonstrate the Residential solar market in the U.S. In the last decade, solar has grown with an average annual rate of 26 percent, reaching a capacity of over 138 gigawatts in . In that same year, solar energy accounted for 55 percent of U.S. construction costs rose slightly for solar and The average U.S. construction costs for solar photovoltaic systems and wind turbines in were close to costs, while natural gas-fired electricity generators decreased 11%, according to our recently U.S. solar photovoltaic system and energy storage cost Pursuant to Title 17 Section 105 of the United States Code, this file is not subject to

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