

# The future scale of solar power generation in China



## Overview

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The 277 GW of utility-scale solar capacity installed in China in 2024 alone is more than twice as much as the 121 GW of utility-scale solar capacity installed in the United States at the end of 2024. Planned solar capacity projects will likely lead to continued growth in China's solar.

## The future scale of solar power generation in China

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[The promising future of developing large-scale PV solar farms in](#)

The results of this study indicated that China, as one of the fast-growing countries in the global south, shows outstanding potential for solar PV power station installation and generation

### Renewable electricity - Renewables 2025 - Analysis

Since solar PV and onshore wind are the cheapest technology options to add new power generation in China, facilities were receiving 15- to 20-year contracts at



### China's energy dominance in three charts

China is the dominant force in next-generation energy technologies today. It's pouring hundreds of billions of dollars into putting renewable sources

### std::future

The class template `std::future` provides a mechanism to access the result of asynchronous operations: An asynchronous operation (created via `std::async`, `std::packaged_task`,



[Ansible yum throwing future feature annotations is not defined](#)

The error: `SyntaxError: future feature annotations is not defined` usually related to an

old version of python, but my remote server has Python3.9 and to verify it - I also added it in my

### **std::future::wait**

Blocks until the result becomes available. `valid() == true` after the call. The behavior is undefined if `valid() == false` before the call to this function.



### **std::future::~~future**

These actions will not block for the shared state to become ready, except that they may block if all following conditions are satisfied: The shared state was created by a call to `std::async`.

### **Solar power in China**

The growth of solar power industries worldwide has been rapidly accelerated by the growth of the solar market in China. Chinese-produced photovoltaic cells have



### **How China adds more renewable energy than any**

China is adding more solar and wind power to its energy grid than any other economy - but that huge buildout has its challenges. Here's what we

### **std::shared\_future**

Unlike `std::future`, which is only moveable (so only one instance can refer to any particular asynchronous result), `std::shared_future` is copyable and multiple shared future objects





[China continues to lead the world in wind and solar.](#)

By the first quarter of 2024, China's total utility-scale solar and wind capacity reached 758 GW, though data from China Electricity Council put the

**std::future::get**

The get member function waits (by calling wait ()) until the shared state is ready, then retrieves the value stored in the shared state (if any). Right after calling this function, valid () is false.



**std::future::wait\_for**

If the future is the result of a call to std::async that used lazy evaluation, this function returns immediately without waiting. This function may block for longer than timeout\_duration due to

[China building two-thirds of world's wind and solar projects](#)

The amount of wind and solar power under construction in China is now nearly twice as much as the rest of the world combined, a report has found.



**std::future::wait\_until**

wait\_until waits for a result to become available. It blocks until specified timeout\_time has been reached or the result becomes available, whichever comes first. The return value indicates why

[China's solar power capacity growth to slow in](#)

## [H2 after](#)

BEIJING, Aug 13 (Reuters) - China's new solar power capacity will slow in the second half of 2025 as reforms removing guaranteed pricing create uncertainty



## **std::future::valid**

Checks if the future refers to a shared state. This is the case only for futures that were not default-constructed or moved from (i.e. returned by `std::promise::get_future()`),

## [China's solar capacity installations grew rapidly in 2024](#)

China has more utility-scale solar than any other country. The 277 GW of utility-scale solar capacity installed in China in 2024 alone is more than twice as much as the 121 GW of utility



## [National Survey Report of PV Power Applications in China 2024](#)

China's goal of achieving a total installed capacity of over 1200GW for wind power and solar power by 2030 has been achieved six years ahead of schedule. By the end of July 2024, the combined

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