

RatedPower's solar and renewable predictions for 2022 backed up with 6.5TW of photovoltaic designs

RatedPower's [annual research](#) carried out to +100 diverse industry experts and +80,000 simulations in their software, evidenced their confidence in the fact that the solar sector will reach the 200GW capacity mark in 2022, surpassing 2021's record of 127GW. This will be led by countries with supportive government policies and investment strategies while in conjunction with digitalization, innovation, incentivization and diversification.

Madrid, 17th February 2022 - In the midst of recovery from the pandemic, the renewable energy industry has settled into a new reality. Clean energy took up a larger share of the generation mix with power demand falling during lockdowns. Social awareness of the environmental impact of regular human activity increased, and governments have committed to investing in renewables to help spur economic recovery.

To gain further insight into the **status of the industry and the key trends** for this year and beyond, **RatedPower turned to +100 experts** from energy companies of all sizes from around the world, and carried out a comprehensive survey that includes their views on the challenges and prospects ahead. Additionally, the report analyzes data from RatedPower's solar plant simulation software to highlight key trends and top manufacturers around the world in 2021.

Survey findings

Industry challenges: Bottlenecks in the development process present the biggest challenge to the sector in the coming years, according to 68% of respondents, alongside an increase in prices due to the lack of materials. 53% of industry experts also view grid saturation as a significant challenge.

Technologies with highest potential: **Energy storage** such as green hydrogen (63%) and batteries (54%), **floating PV, offshore wind** and **agrivoltaics** are at the top of the list.

Countries with the most potential: The highest growth potential is perceived in **China**, according to 64% of responses, closely followed by the US with 62%. **India and Australia** also made the list with their ambitious renewable plans.

Perception of keys to success: Almost all industry professionals believe that **technology solutions** will help them achieve their objectives in the future. **Automation** and **digitalization** of the processes offer benefits throughout the supply chain and will play a key role in the future.

RatedPower: a deep dive into the data

There has been an increase in the volume of generation capacity simulated in RatedPower's software to almost 6.5TW in the past two years.

1. The **average rated power capacity worldwide** in 2021 was around 80MW, with the third quarter being the highest at 95.40 MW.
2. An average of 57.4% of the simulations were based on installations with a **central inverter**. However, the data shows an increase in the popularity of string inverters over central inverters for the first time in the fourth quarter of 2021.
3. Although solar **tracking systems** accounted for 65% of the simulations, there seems to be a growing trend towards the use of fixed structures, which increased by 3%.
4. Top three countries by average rated power are **Saudi Arabia** (327.2MW), **Brazil** (199.9MW) and **China** (170MW).
5. **Bifacial modules** saw a growth of 47% reaching a total of 57% of simulations, up from 30% in 2020.

2021 was a year of record high energy costs across Europe, which has emphasized the advantages of low-carbon energy generation, increasing calls for an acceleration in installing wind and solar systems. The survey reveals that more than 100 renewable energy experts are **confident that solar power generation will surpass 2021's record 127GW of capacity additions to reach the 200GW mark in 2022**. And, **digitalization, storage and diversification** will be **key for the development of the renewable energy** sector going forward.

About RatedPower

We help companies discover the smartest ways to design utility-scale solar PV plants and maximize their potential through pvDesign, our software to automate and optimize the study, analysis, design, and engineering of photovoltaic plants in all its stages.

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