
JinKo

Achieving greater energy independence begins at home

As reliance on solar energy increases, how can traditional PV modules be updated to offer higher efficiency with reduced energy loss and performance? And how does this then translate into cost savings and improved energy output for the end user? We asked these questions and more of Roberto Murgioni, Head of Technical Service and Product Management EU at JinkoSolar EU.

PES: Welcome to PES Roberto. It would be useful to start with a short introduction to the company, for readers who may not know you.

Roberto Murgioni: JinkoSolar is a global leader in the solar industry, with a strong presence in Europe. We specialize in the design, manufacture, and sale of high-quality solar products, including PV modules and storage systems, and have a proven track record of delivering reliable and efficient solutions to our customers.

PES: Solar panel technology has advanced at a fast pace in recent years. What are some of the major changes in technology that you have witnessed?

RM: The solar industry has made significant advancements in technology, including improvements in the efficiency and durability of PV modules, the development of new materials and coatings to enhance performance, and the integration of energy storage systems. JinkoSolar has been at the forefront of solar panel technology advancements, of N-type solar cell technology, which is known for its higher efficiency and better temperature stability compared to traditional P-type cells.

We have also seen increased digitization and automation in the manufacturing process, which has helped to reduce costs and improve quality.

PES: What is driving these changes? Is it just a case of technology advancing and presenting new opportunities?

RM: The changes we are seeing in solar technology are being driven by a combination of factors, including increased demand for renewable energy solutions, the need to reduce costs and improve efficiency, and advances in materials science and engineering. These factors are creating new opportunities for innovation and growth in the industry.

PES: Is it also in response to customer demand? How has this changed?

RM: Yes, customer demand is a key driver of innovation in the solar industry. As more and more consumers and businesses look to adopt renewable energy solutions, there is a growing demand for products that are more efficient, durable, and cost-effective. This has led to a shift in the industry towards higher-quality and more reliable products, as well as the integration of energy storage systems to help customers achieve greater energy independence.

PES: Residential storage is seeing a particular uplift, how are you responding to this?

RM: We recognize the growing demand for residential storage solutions and have developed a range of products that are specifically designed for this market. Our storage systems are highly efficient, reliable, and can be easily integrated with existing PV systems to help customers reduce their reliance on the grid and achieve greater energy independence.

PES: You recently launched new Ntype/TOPCon technology. Can you tell me a little more about this?

Roberto Murgioni

RM: Our Ntype/TOPCon technology represents a major breakthrough in solar cell design and offers significantly higher efficiency and performance compared to traditional PV modules. The technology uses advanced materials and innovative cell structures to reduce energy loss and increase power output, making it an ideal solution for a wide range of applications.

PES: What are the main benefits of this technology?

RM: The main benefits of our Ntype/TOPCon technology include higher efficiency, greater durability and reliability, improved

performance in low-light conditions, and reduced susceptibility to degradation over time. These benefits translate into significant cost savings and improved energy output for our customers.

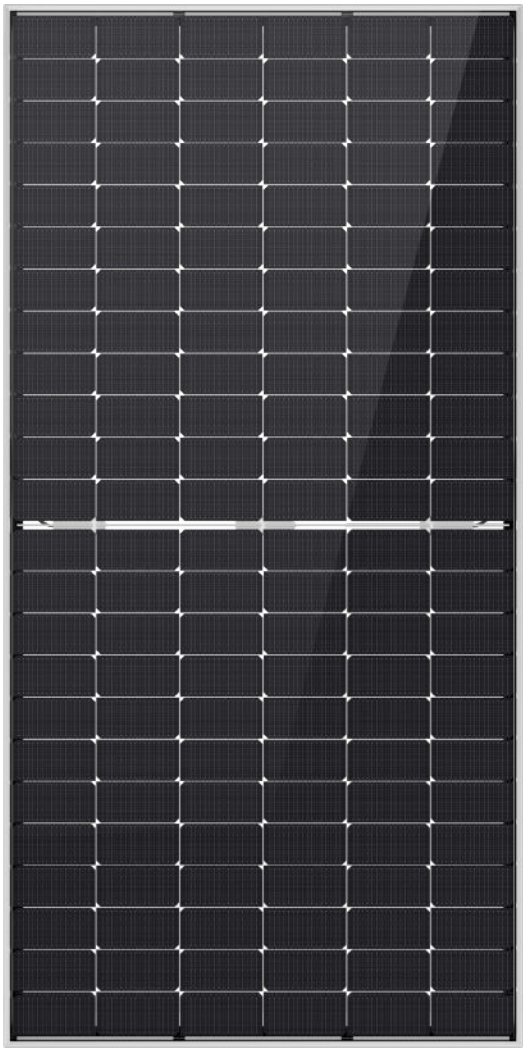
PES: In the past, solar panels have been affected by external conditions such as change in temperature. How are you able to combat this?

RM: N-type solar cells from Jinko perform better at higher temperatures than P-type solar cells, which typically have a positive temperature coefficient. This is because the electrical properties of the materials used in N-type solar cells are less affected by temperature changes than those in P-type solar cells. In addition, the use of N-type technology can result in higher efficiencies and improved long-term stability compared to P-type technology.

N-type solar cells are also less prone to degradation from light-induced effects such as light-induced degradation (LID), which can lead to a decrease in efficiency over time. We guarantee 0.29% power temp. Coefficient. So, overall, the temperature coefficient is an advantage for N-type technology, along with several other benefits that make it an attractive option for solar PV systems.

PES: There has been a big focus on the requirement for clean energy recently, not least due to the rise in energy prices and market conditions around the world. How do you think this will affect things going forward?

RM: The increasing focus on clean energy is a positive trend for the industry, as it presents a major opportunity for growth and innovation. As energy prices continue to rise and governments and consumers become more aware of the environmental impact of traditional energy sources, there will likely be increased demand for renewable energy solutions.



This could lead to a shift in market conditions, with more investment and development in the solar and storage industry. It may also lead to increased government support for renewable energy initiatives, as policymakers recognize the economic and environmental benefits of clean energy.

PES: How is Jinko preparing to react to what looks like being a busy time for solar going forward?

RM: We are well positioned to take advantage of the growing demand for solar energy. The company has a strong track record of developing high-quality solar products and solutions, and has a deep understanding of the European market. In 2022 we exceeded the target by shipping 44GW+.

We have shipped more than 10GW of Tiger Neo to over 80 countries as of the end of 2022. Tiger Neo has proven hugely popular with customers, particularly due to the power output, which is so important to them. We are constantly innovating and developing new technologies to improve the efficiency and reliability of its solar panels, which will help the company remain competitive in a rapidly evolving industry.

There is no doubt that the solar and storage industries will continue to evolve and innovate in the coming years. We are at the forefront of this innovation, and are constantly exploring new technologies and developing new projects to improve the efficiency and effectiveness of its products.

Additionally, we are working closely with its partners and customers to identify new opportunities and develop customized solutions that meet their specific needs. Additionally, we will have a 70 GW capacity for PV modules by the end of 2023.

PES: Is there even more technology and clever thinking to come? Are there new projects in the pipeline you can give us a taste of here?

RM: There is no doubt that the solar and storage industries will continue to evolve and innovate in the coming years. We are at the forefront of this innovation, and are constantly exploring new technologies and developing new projects to improve the efficiency and effectiveness of its products. Some of the new technologies that we are working on include new Topcon technology evolutions, and smart storage systems.

Additionally, we are involved in several major solar projects in Europe. These projects demonstrate Jinko's commitment to developing large-scale solar solutions that can help meet the growing demand for clean energy.

In 2023, we will of course focus on the further promotion of the N-type technology. But JinkoSolar will make a serious effort to become a more important supplier of energy storage.

Over time, we think the demand for our energy storage is going to be at least as high as the demand for our solar PV panels. Our core concept is to make the solar energy as independent, non-intermittent, and self-reliant as possible, and to have a JinkoSolar-powered building or grid.

www.jinkosolar.eu