A new era for solar energy in Europe

The 650 megawatt (MW) Witznitz solar park is redefining large-scale renewable energy with its subsidy-free model and cutting-edge solar technology. Supplied with over 1.1 million JinkoSolar Tiger Neo modules, the project is not only a major step in Germany's clean energy transition, but also a blueprint for sustainable development, biodiversity conservation and long-term energy security across Europe.

The Witznitz solar park, located near Leipzig, Germany, stands as an impressive example of innovation and commitment to sustainable energy. At 650 MW, it is one of Europe's largest photovoltaic installations and it has set a new standard for large-scale solar energy projects without relying on state subsidies.

This monumental project showcases the power of collaboration between global energy players, advanced technology and a shared goal to reduce carbon emissions and combat climate change.

JinkoSolar has been at the forefront of supplying cutting-edge solar technology globally and the Witznitz solar park is a key project in its European portfolio. By providing over 1.1 million Tiger Neo modules, the business has showcased its products' performance and reliability and made a tangible impact on Germany's energy transition.

A game changing project for Germany and beyond

The Witznitz solar park is more than just a large-scale project; it is an essential part of Germany's ambitious renewable energy transition. This transition, known as the 'Energiewende', is the country's plan to phase out coal and other fossil fuels in favor of cleaner energy sources, to achieve a 100% renewable energy system by 2045. The Witznitz solar park's 650 MW capacity contributes substantially to this effort and is expected to generate approximately 0.6 terawatt-hours (TWh) of electricity annually. This output is enough to power approximately 200,000 households, a significant step toward achieving the nation's renewable energy goals.

The solar park's energy is fed directly into the extra high voltage grid of 50 Hertz Transmission GmbH via two substations, designed and built by MOVE ON Energy GmbH, the project's developer. These substations ensure that the electricity produced by the solar farm can be efficiently transmitted to the national grid, where it can be used by homes and businesses across Germany.

A key feature of the Witznitz solar park is its long-term power purchase agreement (PPA), which secured a commitment to procure energy generated by the park. This arrangement provides financial stability for the project and ensures a reliable source of clean energy for customers. It is particularly important to emphasize that the Witznitz solar park does not receive any subsidies or grants.

A strategic partnership for sustainability

The development of the solar park was made possible through the collaboration of several key stakeholders, each of whom brought unique expertise to the table. MOVE ON Energy GmbH, the project developer, oversaw the design, construction and operational management of the park. SIGNAL IDUNA, through its affiliate HANSAINVEST Real Assets GmbH, provided the financial backing necessary to bring the project to life.

This investment highlights the growing interest from institutional investors in renewable energy projects, which are seen as both financially viable and aligned with global sustainability goals.

A long-term off-taker of the electricity generated by the park, played a crucial role in securing the PPA.

TOPCon technology over time

JinkoSolar's Tiger Neo 72 Bifacial Dual Glass modules are at the heart of the Witznitz solar park's impressive energy output. Over 1.1 million of these high-performance modules were installed, making the company one of the key partners in the project.

The modules, built using state-of-the-art n-type TOPCon (Tunnel Oxide Passivated Contact) technology, bring several advantages over traditional solar module designs, significantly enhancing the performance of the entire project.

JinkoSolar has refined TOPCon technology through several years of real-world testing, optimization and large-scale deployment. As a result, it has made significant strides in advancing solar panel efficiency and durability, positioning itself at the forefront of industry innovation. Its Tiger Neo modules, based on cutting-edge n-type TOPCon technology, provide higher efficiency, lower degradation rates and superior performance under challenging conditions, making them highly sought after in large-scale projects. These innovations reflect the brand's commitment to sustainability, providing solar energy solutions that maximize output while reducing the environmental footprint.

By incorporating these high-performance Tiger Neo 72 modules with n-type TOPCon technology, JinkoSolar has helped ensure the solar park achieves its ambitious energy production targets while maintaining reliability, efficiency and long-term sustainability. The park is now positioned to provide consistent, green energy to Germany's power grid, contributing significantly to the country's renewable energy transition.

Strengthening its position in Europe

JinkoSolar's involvement in the Witznitz solar park is part of a broader strategy to strengthen its presence in Europe, a region that is rapidly increasing its investment in renewable energy. The project exemplifies the company's ability to deliver large-scale solar projects that meet the rigorous standards required by European markets. As countries like Germany move toward achieving carbon neutrality, projects like this represent a crucial element in the transition to a clean, renewable energy future.

The solar park is also strategically important for JinkoSolar as it aligns with the European Union's goal of achieving a 100% renewable energy system by 2045. By contributing to Germany's energy mix and providing high-efficiency modules, the business is playing a central role in helping Europe meet its climate targets.

Impact on the environment and local community

The Witznitz solar park is not only a win for the environment but also for the local community and economy. The solar farm is located on former mining land, which has been repurposed for renewable energy generation. This repurposing of land is part of a broader effort to support the renaturation of former industrial areas, which often struggle to find new uses after mining activities cease.

In addition to its energy production capabilities, the project has made important contributions to local biodiversity. As part of its commitment to sustainability, the solar park incorporated various nature conservation measures into its design. These include the planting of nearly 21 kilometers of field

hedges, which serve as visual protection and breeding grounds for local wildlife. The creation of flower meadows and the installation of nest boxes for birds and bats further support local biodiversity.

The project has also created jobs in construction, operations and maintenance, providing a boost to the local economy. Moreover, the establishment of recreational trails for hikers and cyclists makes the region an attractive destination for tourism, benefiting the local community in another way.

A milestone in the global renewable energy transition

The Witznitz solar park represents a crucial step in the global transition to renewable energy, driven by cutting-edge technology, strategic partnerships and a shared commitment to sustainability. JinkoSolar, with its high-efficiency Tiger Neo modules, has played an essential role in the success of this project, which will continue to generate clean energy for decades to come.

As the world works toward achieving climate goals and reducing carbon emissions, the project stands as a testament to the power of innovation, collaboration and sustainable energy solutions. It is a beacon of hope for a cleaner, greener future, one where large-scale solar projects like this are key to shaping the global energy landscape.

For a deeper look into this groundbreaking project, watch the video overview of the Witznitz Solar Park.

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