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Revamping Projects with Voltalia: Improving Solar Power Plant Performance

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Revamping is one of the newest and most attractive developments in the solar energy market, for everything from medium-sized investors to private funds. As PV systems age, there is a growing need to upgrade and improve operating plants. However, many companies either do not undertake revamping projects or lack the resources or expertise to do so. Interested in this concept? Read on to find out why you should get started!

Revamping in solar energy: An essential overview

In simple terms, revamping refers to all measures taken to modernize and optimize the performance of an existing photovoltaic solar power plant. This proactive approach has many benefits, including:

- extending the life of the installation;
- increasing efficiency and energy output;
- improving profitability through the use of high-quality materials;
- enabling technical updates and replacement of equipment at a lower cost;
- mitigating risks associated with equipment that no longer has manufacturer support.

Revamping techniques vary based on the specific needs of each plant and available technological advances. These may include replacing solar panels, upgrading inverters, or optimizing the overall structure and wiring of the power station.

Why do you need revamping?

Are your power station's aging and losing efficiency? Consider a revamping project for several key advantages.



Increase your energy production

Upgrading **solar panels** to newer, more efficient models, improving inverters, optimizing structure and cabling can significantly increase your system's energy output. This can result in **higher return on investment.**

Eliminate Endemic Problems

Revamping can address and eliminate persistent issues that have plagued your solar power plant, improving overall reliability and performance.

Mitigate Risks Associated with Unsupported Equipment

Updating equipment can mitigate risks associated with components that no longer have manufacturer support, ensuring more reliable and safer operations.

Reduce your operating costs

Revamping improves plant efficiency, leading to reduced operating and maintenance costs. This includes the cost of cleaning panels, maintaining inverters, and replacing faulty parts. Old modules and equipment are also almost entirely recyclable or reusable with the support of our "Second Hand Activity" department, providing additional economic benefits.

Extend the life of your solar power plant

Revamping allows you to delay the need to replace your solar power plant by extending its life. This can represent a significant saving for businesses, as the cost of installing a new solar power plant is usually high.

Enhance your company's sustainability and brand image

Revamping your solar power plant has important environmental benefits. By increasing solar energy production and extending the plant's lifespan, revamping projects help minimize waste and increase the use of green energy.

In terms of branding benefits, a commitment to revamping your solar power plant demonstrates your company's dedication to environmental responsibility and sustainable development. This can build positive relationships with customers, partners, and employees, while also improving your brand image.

Voltalia, your partner for your next revamping project

With years of experience in revamping projects, Voltalia offers a dedicated team skilled in:

- **assessing the condition of solar power plants;**
- **selecting the most suitable revamping approach;**
- **implementing revamping on-site.**

Key figureThe lifespan of a utility-scale power plant is usually estimated at 20 to 30 years .

Successful revamping projects: Hercules Solar Park (Portugal) and Camazou (France)

Two notable revamping projects, Hercules Solar Park in Portugal and Camazou in France, each involved replacing 10 MWp of central inverters.

The old inverters were unsupported by the manufacturer and the spare parts were no longer available, so they were upgraded to an equivalent capacity of state-of-the-art string inverters. This upgrade eliminated the high risk of requiring technical support associated with the old inverters.

Revamping these plants significantly boosted energy production, thanks to the increased efficiency of the new inverters and the improved technical solution. The implemented solution also simplified site maintenance and improved the availability and reliability of the inverters, thereby increasing overall performance.

"Voltalia also reaped several additional benefits from this revamping. The professionalism shown in the development and implementation of this project was instrumental in Voltalia winning the subsequent tender for the operation and maintenance of the system for five years. Moreover, the positive results prompted the asset manager to request a study for revamping other equipment at the site, which is currently underway."

Adriano Fernandes, Maintenance Engineering Coordinator at Voltalia



Hercules Revamping

The implementation of these projects has not only improved asset performance, but has also significantly enhanced the financial performance of the plants. By increasing efficiency and reliability, these revamping efforts align with Voltalia's innovation strategy and contribute to the company's energy transition goals. The resulting increase in productivity and reduced maintenance costs lead to improved financial outcomes, enabling further investment in innovative and sustainable energy solutions.

Support at every stage

As a provider of renewable energy services, Voltalia is proud to support its customers in the implementation of solar power plant revamping projects. Our technical expertise and in-depth knowledge of the market enable us to offer tailor-made solutions that meet the specific needs of each customer. Together we can build a sustainable future.