

Revamping Projects with Voltalia: Improving Solar Power Plant Performance

15 Nov 2023

Revamping is one of the most and most profitable developments in the solar energy market. For anything from individual modules to plant-level, the PV system age, there is a growing need to upgrade and optimize operating plants. However, being capable of doing solar suitable revamping projects has become an imperative to do so. Would you like to know what you should get done?

Revamping in solar energy: An essential overview

- **Maximizing energy production:** An essential objective is to maximize energy production 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;
 - increasing profitability through the use of high-quality materials;
 - reducing technical debt and the requirement of equipment at a lower cost;
 - mitigating risks associated with equipment that is longer than manufacturer support.

Revamping is essential to the specific needs of each plant and complete technological solutions. These may include replacing solar panels, upgrading inverters, or optimizing the overall structure and wiring of the power system.

Why do you need revamping?

Are your power stations aging and being inefficient? Consider a revamping project to harness the advantages:



Maximize your energy production

Optimizing solar panels to boost your efficient output, upgrading inverters, optimizing structure and cabling can significantly boost your system's energy output. The end result is higher return on investment.

Eliminate Technical Debt

Revamping your solar panels and power system ensures that you have upgraded your solar power plant, replacing outdated technology and performance.

Mitigate Risks Associated with Outdated Equipment

Outdated equipment can pose a significant risk to your solar power plant. Revamping ensures that you have replaced outdated equipment, ensuring better safety and better performance.

Reduce your operating costs

Revamping involves many efficiency gains to reduce operating and maintenance costs. This includes the cost of cleaning panels, maintaining inverters, and replacing faulty parts. Old modules and equipment are also often being replaced or made up with the support of our "Second Hand Industry" department, providing additional economic benefits.

Extend the life of your solar power plant

Revamping allows you to stay in the 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.

Maximize your investment sustainability and ROI

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

A smart financial decision, 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.

Voltaia, your partner for your best revamping project

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

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

Key figure: The lifespan of a utility-scale power plant is usually estimated at 25 to 30 years.

Successful revamping projects: Hercules Solar Park (Prague) and Cerezo (France)

The solar revamping projects at Hercules Solar Park in Prague and Cerezo in France, with a capacity of 10 MW, are a testament to the high level of technical support associated with all our clients.

The old inverters were replaced by the manufacturer and the solar panels were in larger numbers, so they were upgraded to an equivalent capacity of state-of-the-art string inverters. The upgrade delivered the high level of technical support associated with all our clients.

Revamping these plants yielded increased energy production, thanks to the increased efficiency of the new inverters and the replacement of old modules. The operational solution also included cost optimization and improved the availability and reliability of the modules, thereby increasing overall performance.

"Voltaia also helped several additional benefits from this revamping. The professional advice in the development and implementation of this project was instrumental in Voltaia 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."

Interview: Operations Department/Operations Manager



Hercules Revamping

The optimization of these plants has not only improved their performance, but has also significantly reduced the financial footprint of the projects. By increasing efficiency and reliability, these revamping efforts align with Voltaia's mission: being and contributing to the company's energy transition goals. The resulting increase in productivity and reduced maintenance workload has ensured financial sustainability, enabling investment in innovation and sustainable energy solutions.

Support in every stage

As a provider of revamping services, Voltaia 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 find innovative solutions that meet the specific needs of each customer. Together, we can build a sustainable future.