



Bottling Facility Kranskop 905kW Grid-Tied Solar System

- **PROJECT OVERVIEW :**

In a bid to revolutionize their energy sourcing and reduce their carbon footprint for a bottling facility in Kranskop, as they embarked on a groundbreaking project to install a 905kW grid-tied solar system. The project aimed to counter the escalating Eskom tariffs, mitigate the impacts of load shedding, and transition to a more sustainable energy source. The installation was executed by a dedicated team of 15 expert installers from Ijika and GMG, led by Engineering Director Wayne Lehmkuhl. The project timeline spanned from September 2021 to November 2021 in partnership with Magnet, the principle contractor.

- **PROJECT BACKGROUND :**

The bottling facility initially relied on diesel generators to power their operations before securing an Eskom electrical connection. However, the surging Eskom tariffs and persistent load shedding prompted them to seek a long-term, eco-friendly energy solution. This led to the decision to establish a comprehensive solar power system.



- **Challenges Faced:**

The bottling facility project was not without its share of challenges. The installation site, characterized by frequent rainfalls and strong winds, presented safety concerns. The Ijika Solar Solutions team had to devise innovative strategies to ensure the safety of their crew and equipment while working under adverse weather conditions. Despite these challenges, the team remained steadfast in their commitment to quality and safety.

- **Project Execution :**

The installation encompassed 2000 solar panels strategically positioned across the bottling facility. To harness the energy captured by these panels, the project integrated 10 state-of-the-art SolarEdge inverters. This cutting-edge technology ensured maximum energy efficiency, enabling the bottling facility to optimize their energy production and consumption. The involvement of Ijika Services' Director, Wayne Lehmkuhl, in engineering designs and generator integration underscored the company's dedication to delivering excellence.

- **Technical Expertise and Teamwork:**

The success of the bottling facility solar installation can be attributed to the expertise and synergy of the 15-members solar installation team. Their collective skills, honed through extensive training and experience, allowed them to navigate the intricate installation process smoothly. The team's commitment to safety, even in the face of adverse weather conditions, demonstrated their unwavering dedication to the project's success.



- **Outcomes and Impact:**

The completion of the 905kW grid-tied solar system marked a significant milestone for both aQuellé and all team stakeholders. aQuellé's transition to solar energy not only mitigated the impact of escalating Eskom tariffs but also drastically reduced their carbon footprint. The system's integration with Eskom's grid provided a seamless energy supply, even during load shedding episodes, It reduced load on the generators ensuring a reduction in fuel cost.



- **Conclusion:**

The bottling facility 905kW grid-tied solar system installation stands as a testament to the power of innovation, teamwork, and sustainable energy solutions. Through the collaborative efforts of dedicated installers and project team, the bottling facility successfully transformed their energy sourcing while maintaining the highest standards of safety and quality. This case study exemplifies the potential for businesses to embrace renewable energy solutions, not only for economic advantages but also for the greater good of the environment.