

Background

Golden Arrow Bus Services (GABS) is Cape Town's largest bus company, transporting thousands of people to work and back daily. Additionally, Golden Arrow is currently the only scheduled passenger transport operator in the Cape Metropole to have achieved prestigious government and industry recognized Road Transport Management System (RTMS) accreditation.

Multimech is the company's central engineering complex where this installation took place. This facility services the fleet of buses, ensuring the fleet operate smoothly and safely

Objective

The 159-year-old company wished to establish itself as a champion of sustainable energy use. As such, GABS has embarked on various initiatives as part of its ongoing sustainability and carbon footprint reduction initiatives.

This project, which is the first of its kind, saw a multi-year collaboration between Golden Arrow, New Southern Energy and the City of Cape Town.

Solar solution

A grid-tied solar plant was designed for Multimech, that would be rolled out in various stages. The solar system generates renewable power by harnessing solar energy from the sun and converting it to usable AC power. Such a system generates power for the property and thereafter, feeds any excess power it generates back into the electrical grid, to which it is connected.



Results

The switch to renewable energy has been so successful that this large industrial site has reduced its electricity account by 71% over the last three years. Moreover, it has had a zero energy bill since January 2020. The company is now established as a net producer of green energy, using only approximately 46 % of the power it produces, and exporting the rest to the City of Cape Town.

A solar system of this nature has an estimated lifespan of 20-25 years and projections indicate financial savings exceeding R 80 million over its lifespan.

Solar solution

The first phase of the project, which began in 2017, comprised a small installation of solar panels on Multimech's roof. During the second and third phases of the project, the number of panels was increased to almost 2 500 with the capacity to generate approximately 1 200 million kilowatt hours per year.

The final installation was completed during October 2019. Since then, the site has consumed only 46% of the electricity generated by the system and exported the balance to the City of Cape Town for use elsewhere.



Team

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