

CASE STUDY

MAN GOES GREEN WITH GOODWE

Background:

A major move taken by MAN on its global mission to build a cost-effective future and reduce their impact on the environment had to be their biggest milestone in 2021 when they decided with the help of Energy Guru, who ensured they had the best system installed to the highest quality standards at their offices in Olifantsfontein Johannesburg South Africa, With the high use of energy daily Man Truck decided it was time to contribute to the environment in reducing CO2 emissions.

Challenge:

“An energy logger was installed to determine the total load and general power quality at the site. The engineering team had to consider factors like mounting arrangements, environmental aspects such as wind force and more intricate details such as cable routes, cable management, expansion, and bi-metallic corrosion of the disparate metal components, etc.

Safety files were prepared to comply with the OHS act and all access and anchoring points to the roof areas were secured. The roof structure for the plant was signed-off by a structural engineer prior to the construction & installation phase.

The AC DB board was designed and manufactured to SABS standards while the solar panels were being installed. Lastly the electrical network was complimented with the integration of the generator to operate in conjunction with the solar system resulting in diesel savings during load-shedding cycles.” Energy Gurus Project Manager, Carel Ballack, explained the project methodology.



Installation details

Location: Olifantsfontein, Johannesburg, South Africa
System Owner: Man Bus and Coach Manufacturing Plant
System Capacity: 360kW
Solar Panels: 806 JA Solar 540W Panel Installed
Inverters: HT120kW x 3

Solution:

3 GoodWe HT 120kW Inverters were chosen for the installation, The HT series offers up to 12 MPPTs, and is compatible with bifacial modules, with a higher threshold of DC current (Max. 15A per string). It includes PLC communication and internal humidity detection. The HT series seamlessly incorporates different sets of technical strengths designed to achieve higher savings in the installation.

System Performance:



Environmental Effect:

The PV generation in this case will reduce CO2 consumption by 372,484 kg per year, which is equivalent to:



1,784,286
square meters of forest in a year



924,581
miles driven by an average gasoline-powered passenger vehicle



412,119
pounds of coal burned



158,850
Liters of gasoline consumed



45,309,880
times of smart-phone charged



72.5
homes' electricity use for a year

Results may vary depending on your location.

About GoodWe

GoodWe is a world-leading PV inverter and energy storage systems manufacturer listed on the Shanghai Stock Exchange (Stock Code: 688390). The company has more than 3,000 employees located in 20 different countries and a team of over 600 engineers working at its R&D centers to continuously optimize and advance energy storage technology. GoodWe storage inverters were ranked No. 1 globally by Wood Mackenzie in 2020, with over 15% market share, and the company was ranked one of the world's Top 10 inverter suppliers by IHS Markit. Having achieved over six consecutive TÜV Rheinland "All Quality Matters" awards and consistently being ranked at the top in terms of overall product quality, GoodWe's comprehensive portfolio of products and solutions for residential, commercial, and utility-scale PV systems is guaranteed to deliver high performance and reliable quality across the board. For more information, please visit goodwe.com.

“ *As a MAN bus manufacturing plant, we utilize high amounts of energy daily through very complex processes. We decided that we wanted to give back to the environment and contribute our share in reducing CO2 emissions. The Energy Gurus have helped us take a successful step in the right direction. They ensured we had the best system installed by professionals to the highest quality standards and ahead of time.* **”**

- says Mark Gouws, Plant Manager at MAN South Africa

“ *Our mission is not only manufacturing world class buses & coaches, but to ensure we do not adversely impact the overall environmental footprint and hence we took on the Solar Project. This was one of our many best moves. The impeccable team from The Energy Gurus surpassed project timeline expectations and maintained every aspect of professionalism and quality service throughout the project.* **”**

- says Mamotse Mapheto MAN (SHERQ) Safety, Health, Environment, Risk