

SIGNET TERRACE SHOPPING CENTRE

How renewable energy can advance sustainable shopping

OVERVIEW

Signet Terrace Shopping Centre in Johannesburg, South Africa, inaugurated its state-of-the-art solar power plant in June 2023. At the time, they were one of the first retail outlets to switch to large-scale solar power and the first in their area to incorporate solar-powered EV charging, marking a shift towards sustainable retail and green energy adoption.

The installation boasts a total capacity of 975.7 kWp solar PV, which would bring about an impressive 66% reduction in kWh consumption over the plant's lifetime. In the first month alone, the solar power plant achieved a remarkable 30% reduction in kWh usage. As part of the focus on green energy, the solar installation also includes a 22kW Enelion Vertica EV Charger that powers two EV charging bays.

SYSTEM DETAILS

At Solarise Africa, we prioritise high-quality products for our solar installations. For Signet Terrace Shopping Centre, the key components include:

- Solar Modules: 1174x 550W monocrystalline Canadian Solar Modules
- Inverters: 8x Sungrow 110 kW inverters
- EV Charger: 22kW Enelion Vertica EV Charger

The solar panels utilised in Signet Terrace's installation boast an impressive efficiency rate of 21.45%, which surpasses traditional panels, enabling heightened energy generation from sunlight and maximising the system's overall output.

AT A GLANCE

This landmark project serves as a powerful reminder of the importance of collaborative efforts in driving sustainable development.

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Signet Terrace Shopping Centre is proud to be at the forefront of the renewable energy movement, leading the way for other businesses to follow suit and embrace clean, green energy solutions, clearly highlighting the potential for cost-effective energy solutions that benefit both the environment and the bottom line.

CASE STUDY

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BENEFITS

Financial Viability

The Power Purchase Agreement (PPA) between Signet Terrace and Solarise Africa not only aligns with Signet Terrace's sustainability objectives but also yields substantial cost savings on electricity expenditure, with estimated cumulative savings of R53 million over twenty years.

Environmental Impact

Signet Terrace Shopping Centre's commitment to incorporating environmentally friendly solutions aligns with its overarching goal of sustainability. By switching to solar, the shopping centre significantly reduced carbon emissions by an estimated 32,702 tonnes of CO₂ over the plant's operational lifespan. This reduction is equivalent to planting 54,502 trees or saving approximately 12,160,072 litres of diesel fuel.

Risk Mitigation

This collaborative solution empowers Signet Terrace to fulfil its social and environmental obligations without diverting resources towards monitoring, maintenance, cleaning, insurance, or system replacement. The Centre can now channel its focus towards core competencies while entrusting Solarise Africa with a meticulously managed, compliant, and secure energy provision.



"The Signet Terrace Shopping Centre solar power plant is a testament to our commitment to sustainability and responsible business practices. This installation allows us to generate a substantial portion of our electricity needs through renewable energy sources, significantly reducing our carbon footprint while ensuring long-term cost savings.

We are also delighted to introduce EV charging bays powered by our solar installation. This addition demonstrates our commitment to sustainable transportation options and provides a convenient solution for electric vehicle owners visiting our shopping centre."

Kavi Naidoo

Signet Terrace Shopping Centre

Solarise Africa is a pan-African Energy-as-a-Service company. We provide reliable and affordable decentralised energy solutions for businesses in Africa. Together with our solar partners, we offer a full-service solution that covers designing, building, financing and maintaining solar installations. Through our smart financing solutions, we unlock possibilities and empower our partners to thrive and actively drive Africa's progress.