

Project Leaflet

1MW rooftop grid-connected solar plant for Belgotex Floorcoverings (Pty) Ltd in Pietermaritzburg.



Sustainable Power SolutionsTM builds Africa's largest industrial rooftop solar plant in Pietermaritzburg.

Pietermaritzburg is leading the way with Africa's first 1MW rooftop grid-connected solar plant!

Recognizing the trend of ever increasing electricity prices, Belgotex made the decision to build a 1MW solar plant on the 100 000 m² roof of their manufacturing facility at a cost of R17 million as part of their strategy to offset 5% of their carbon emissions.

How it works

The system is built on the north-facing roof of the facility at an angle of 15 degrees resulting in a yield of 1415 MWh per annum. The entire installation comprises 4080 poly crystalline modules each rated at 245 Watt peak. The solar modules are tied to 64 Danfoss three-phase grid inverters and the output of the grid inverters is integrated into Belgotex's electricity system at 11000 Volts. The integrated web server function in the inverter compiles data on the status of the solar plant which is fed to a web portal, and can be easily accessed by

Belgotex and the operations and maintenance team.

The energy generated daily is estimated to power 200 average households and avoids carbon emissions of 1 386 tons each year from not having to rely on coal produced electricity.

Sustainable Power SolutionsTM MD, Axel Scholle says, *"The interest of commercial and industrial clients in solar power generation is what will make solar power sustainable in South Africa and will ultimately lead to a change in how the electricity sector in South Africa will operate to incorporate the increasing contribution of intermittent renewable energy generation."*

Sustainable Power SolutionsTM boasts a highly qualified and dynamic team of engineers and professionals with over 30 years local and international experience in the renewable energy sector. The optimised engineering design, the use of high quality components and consistent service offer as demonstrated in previous projects such as Dube TradePort (700kWp), GlaxoSmithKline (80kWp) and Impahla Clothing (30kWp) bear reference to this.

BELGOTEX: 1 MW SOLAR PV PLANT FAST FACTS

System size	Date commissioned	Construction time	Annual generation
1 MW	November 2013	10 weeks	1415 MWh