



SOUTH AFRICA/AFRICA
Marble Hall / Frans Smit Trust
 realized 2016

Holms and Friends 

GRID-TIED SINGLE AXIS PV SYSTEM

Description:

Frans Smit Trust (FST) had more than 24 sites with individual connections to the national electricity grid with an annual consumption of 1,941,000kWh. The monthly seasonal variance was >300%. These were on different tariff structures and all paid maximum demand individually. Holms and Friends was requested to combine these sites into a single unit, reduce the effective maximum demand and install a solar photovoltaic system. As the new tariff was a Time of Use (ToU) structure, early morning and late afternoon tariffs were higher. The solar system therefore had to supply more energy during this time. The national Electricity utility had a so-called "Banking-system" where over production could be used within a twelve-month period at the same tariff as use. Holms and Friends therefore installed a single axis tracking system of 802.56kW_p in order to maximize the energy yield over the whole day. The additional output advantage to a fixed system was 26%, yet the financial benefit for both FST and the utility, was much higher.





Geographical position:

Lines of latitude: -25.071285

Lines of longitude: 29.183264



KEY DATA

<p>SYSTEM CAPACITY</p> <p>2 816 X 285 W_p</p> 	<p>SOLAR PEAK PERFORMANCE</p> <p>802,56 W_p</p> 
<p>CO₂ REDUCTION</p> <p>88% OF GRID ELECTRICITY NEED</p> 	<p>SMA STP25000TL-30 INVERTERS:</p> <p>32</p> 



For more information go to:
www.holmsandfriends.co.za