

Largest solar farm in southern hemisphere launched

Late last week, Minister of Energy Tina Joemat-Pettersson inaugurated the 175MW Solar Capital facility based in De Aar, Northern Cape. It is the largest solar farm ever completed in the Southern Hemisphere, Africa and the Middle East region.



Photo by Roger Sedres/ImageSA

This launch of the facility is the culmination of a two-phase project. The first phase has a capacity of 85MW and the second phase an even larger capacity of 90MW. In total the facility is 473ha, consists of 503,942 modules and took a mere 28 months to construct. The amount invested in the project totaled R2.2bn and R2.6bn for the first and second phase respectively – making an overall investment of R4.8bn in the development of the facility.

Rising energy consumption

According to Joematt-Pettersson, sub-Saharan Africa has seen tremendous economic growth and its energy consumption has risen by 45% since 2000. “Many governments are now intensifying their efforts to tackle the numerous regulatory and political barriers that are holding back investment in domestic energy supply, and inadequate energy infrastructure puts a brake on urgently needed improvements in living standards.”

The Department of Energy (DoE) has been working hard to solve the energy shortage in South Africa through its Renewable Energy Independent Power Producers Procurement (REIPPP) Programme. This programme allows for foreign investment in renewable energy farms, and has enabled the establishment of various renewable energy facilities which assist in providing the grid with electricity, such as Solar Capital De Aar’s 175MW farm.

Highest irradiation levels

Paschal Phelan, chairman of Solar Capital, says that the launch of the facility is an important example of how solar power can assist in solving the current energy crisis in South Africa. “The Northern Cape of South Africa has some of the highest irradiation levels in the world, with the location of this facility boasting 2168kWh/m². This allows the abundant sunlight in the region to be converted into green energy to be transferred to the national energy grid.”

Phelan explains that South Africa as a whole will benefit from the facility, as all power generated from the project will be exported into the national electricity grid. “The electricity produced will be able to power approximately 75,000 South African homes every year.”



Photo by Roger Sedres/ImageSA

He adds that, with the introduction of lithium batteries in the near future, power will not only be transferred during the day, but can also be provided at night when it is most needed.

Positive local impacts

Solar Capital has also invested in long-term economic development in and around De Aar. Phelan points out that the De Aar project has had positive economic effects in the local area. The facility employed over 2,000 local people at peak and currently employs approximately 100 people for operations and maintenance.

He says that by the end of 2016 more than R24m will be spent on economic development in projects, such as a community leaders development programme, free Wi-Fi for the town of De Aar, a large community training centre that houses a computer training laboratory, as well as an arts training and exhibition centre.



Photo by Roger Sedres/ImageSA

“The launch of the solar farm is not only a success in its own right, but also allows for the opportunity to spread the message of solar success. It has no mechanical parts, it has minimal operation costs, no emissions, no water usage and it is safe. It needs to be a priority in South Africa that we continue the investment in this source of abundantly free, green, sustainable energy,” concludes Phelan.

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