Solar PV system installed at new Cedar Mill Mall

Clanwilliam's new Cedar Mill Mall is is an example of how renewable energy is aiding economic development in small towns with limited access to the national grid, says Dominic Wills, CEO of SOLA Future Energy, whose company installed a solar photovoltaic (PV) system that provides the additional power for the shopping centre that Eskom can't supply.



During the connection application, the parastatal indicated that it was able to supply only 250kVA of continuous power due to constraints on the grid. However, to get the project off the ground, the mall's developers, Noble Property Group, needed at least double what Eskom was able to approve: 500 kVA.

"The solution was to utilise the substantial roof space on the mall to install 2580 solar panels with a capacity of 851kW. In addition to this, a 696kWh Li-Ion battery was installed to store excess power in times of excess and discharge in times of need," explains Wills.

Independent of central grid

Thanks to the solar PV and battery system, electricity can also be supplied to the mall independent of the central grid. This will make the centre resilient to power outages, which often plague small, remote municipalities.

"In addition to providing power to the grid and off-grid, the exciting potential of solar PV technology is that it can provide solutions that supplement the grid. This technology is deployable in rural settings, where electricity connections are often

limited," Wills adds.

"Incorporating a microgrid into the shopping centre turned out to be a financially attractive solution when considering how much energy could be harvested and stored from solar PV," said Mario Dos Reis, director of leasing at Noble Property Group. "The shopping centre will be a blessing for small business owners in the town looking for an accessible and safe location to trade."

Although Noble Property Fund had bought the land ten years ago, development only began once it became clear that the mall's power needs could be met.

Contributing to Clanwilliam economy

The shopping centre, which is expected to create 300 permanent jobs, promises to be a boon for traders, economic activity and job creation in the town.

"We salute the developers of the Cedar Mill Mall for not allowing the energy supply problems they experienced to derail their project, thereby ensuring that they are able to create important new jobs and contribute to the Clanwilliam economy," says Alan Winde, Western Cape minister of economic opportunities.

Winde says that when businesses invest in renewable energy and in their own resilience, they also decrease their long-term risks.

The solar PV system is expected to save the mall 1.1-million kWh electricity per annum, resulting in a 982 tonnes carbon emission saving for at least 25 years.

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