

New Department of Environmental Affairs building represents green leadership

According to Brian Wilkinson, CEO of the Green Building Council of SA (GBCSA), the official opening of the Department of Environmental Affairs' new head office - a 6 Green Star SA Office Design rated building - in Pretoria on 17 October by President Jacob Zuma represents a milestone and significant step in green leadership.



Brian Wilkinson, CEO of GBCSA

"This landmark new green building represents a major commitment by the government to green building and sustainable development. We welcome the green leadership shown," says Wilkinson.

"For any building to achieve a 6-star rating is a feat that should be celebrated because of the high standard of green build design and construction applied. For a government building, this is a precedent setting move by the leadership of our country and is quite a progressive demonstration of consciousness for the green movement.

"As the biggest owner of property in the country and one of the biggest occupiers of office buildings, the government is a key stakeholder. It can play a crucial role in, not only driving the development of green buildings within its own portfolio, but incentivising the private sector by occupying office buildings that are green rated," he adds.



The GBCSA certified the new R653-million DEA head office building with a 6-Star Green Star SA Office V1 Design rating last year, which is the highest achievement ever for a government office accommodation project of this magnitude in SA. The council also recognised the efforts of the government in this project with a Green Star Leadership Award.

With a gross floor area of 30,654m², the building located in Arcadia, Pretoria, showcases green building principles and target the green output specifications outlined in the government's National Climate Change Response Policy.

The building's most significant savings are around energy, the most heavily weighted environmental category due to SA's energy sources being mainly coal based. The DEA's predicted energy consumption is about 108 kWh/m²/annum for the base building, and the estimated savings are in the region of 3.5 million kWh per annum, which translates into 4.4 million kgCO₂/annum.

The project also targeted the GBCSA's new Socio Economic Category (SEC) that aims to address the softer aspects of green building so relevant in developing countries. This pioneering category rewards projects that encourage skills development and transfer on building sites as well as support job creation.

The building's green building features include:

- Optimal building orientation and intense modelling and efficiencies were undertaken to meet the ambitious energy consumption goal of not to exceed 115kWh/m2/annum.
- The roof is almost entirely covered with solar photovoltaic panels to supply almost 20% of the building's energy need.
- The parking area features a concentrated photovoltaic panel (CPV) which tracks the sun and will provide solar car charging stations for electric vehicles.
- Water efficiency measures are expected to result in the consumption of 30% less water and includes a rainwater harvesting system, water-wise indigenous plants and efficient irrigation systems.
- Designed to provide 150% more fresh air than what is required by law.
- The project achieved full points for low Volatile Organic Compound (VOC) credit - all carpets, flooring, adhesives and sealants where low VOC.
- Innovative green lease with a performance period for the contracted maintenance party, in which penalties will be paid if the building consumes more energy than predicted.

"We need more teams like those involved in projects of this nature. The reality of it is that green building affords us the unique opportunity to make a significant contribution to climate change abatement. We have to act now and do all we can before we miss the opportunity entirely," comments Wilkinson.

The DEA head office is one of only three buildings in SA to have now secured the GBCSA's coveted 6 Green Star SA Office V1 Design rating. The others include No.1 Silo at V&A Waterfront in Cape Town and the Vodafone Site Innovation Centre the Vodacom Campus in Midrand, Gauteng. However, the No.1 Silo office building is the only one in the country to have secured the GBCSA's 6 Green Star SA Office V1 As-Built rating.

"Now that the DEA's head office has been opened, we encourage the development targeting a 6 Green Star SA Office V1 As-Built rating. It will make green building history as the first South African government building to do so and only the second building overall in the country," says Wilkinson.

In the last seven years the GBCSA has certified a million square metres of commercial space, and has another million in the wings. Most of this has been in the private sector. With the green leadership the government has shown in developing the DEA's new head office complex and other new buildings, Wilkinson is optimistic that even more government buildings will go green.

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