

engineering and project management

figating where best to establish freight hubs without increasing the cost of doing business in the area, Vries explains.

Several factors are driving the project, including the increasing volume of goods moving through Gauteng, requiring additional facilities and increasing truck congestion, together with the constant threat of accidents and increasing emission levels.

Another key trend that is slowly unfolding is the focus around green developments, energy efficiency and carbon footprint reduction.

Owing to the challenging economic climate, clients are taking a cautious approach to 'green developments', largely as a result of the cost implications.

"Although going green has long-term cost benefits the upfront cost outlay, which is significant, tends to discourage developers," Vries explains.

However, new building specifications are calling for increased energy efficiency and a significantly reduced carbon footprint.

Adopting energy-efficient methods, such as taking into account building orientation and the use of energy-efficient products, can yield up to a 30% energy saving.

PROJECTS

Some of the signature projects with which Gibb is currently busy include the Ingula Pumped storage scheme, the Meto-

long Dam in Lesotho and local power producer Eskom's coal-fired dry-cooled power station in Limpopo.

For the Ingula pumped storage scheme Gibb, as the leader of a JV with a range of local and international firms, has been appointed for the detailed design, tender documentation, and design monitoring and construction supervision. The project is 45% complete.

The project consists of an upper and lower reservoir, an underground power house complex with access tunnels and associated waterways that link the two reservoirs and ancillary works that include buildings, roads, transmission lines and temporary and permanent infrastructure.

For the Metolong dam project, the consultant scope includes the tender and detail design of the dam, intake tower and pumping station, along with supervision of construction. The Metolong dam is an 83m high straight roller compacted concrete gravity dam with a storage capacity of 63.7m m³. Construction on this project is under way.

For Eskom's Medupi power station, which is scheduled to deliver power in 2013, Gibb was tasked to design and document the site facilitation works, including bulk earthworks, provision of stormwater drains, site roads, sewerage reticulation and sewage treatment works, a conveyor bridge, water retention dams and boiler ash wash down collection and treatment. ■

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