

Enterprise applications are core to the renewal of South Africa's energy sector

New trends in energy storage, small-scale embedded generation, and smart grid systems are disrupting the power sector, a trend that will accelerate in South Africa with the recent lifting of licence restraints on power plants.



Mohamed Cassoojee

This, along with the planned unbundling of Eskom and licencing of more independent power producers, will move us away from a centralised supplier to a more dynamic market.

That's according to Mohamed Cassoojee, managing director for South Africa at IFS, the global enterprise applications company. He says with municipal and national energy assets in disrepair and a transition to new, decentralised, green energy sources underway, the South African power industry must embrace technology to enhance operational efficiency, reduce costs, and improve asset utilisation.

Against the backdrop of these challenges, South Africa's energy sector should look towards enterprise asset management (EAM) and modern enterprise resource planning (ERP) applications to more tightly manage the renewal and extension of its power generation, transmission and distribution infrastructure, adds Cassoojee. Such solutions can help the national power utility and municipal power companies to better prepare for the seismic shifts currently underway in the energy market.

Government is aware of these challenges. Speaking at the recent African Utilities Week conference, former Energy Minister Jeff Radebe said that government needs to invest in infrastructure and turn around the untenable situation around Eskom's growing debt and increasing tariffs. He further noted that distributed generation and smart grid systems will disrupt the traditional power utility delivery model.

Optimising maintenance and field service

The shift will require a much more dynamic and optimised approach to maintenance and field service. South African energy companies must thus embrace digital transformation as an imperative. This transformation begins by embracing enterprise asset management to improve asset utilisation, according to Cassoojee.

The subsequent steps are enhancing upstream and downstream supply chain management, resource optimisation, introducing enterprise operational intelligence, embracing new technologies such as the Internet of Things, machine learning, and predictive maintenance, and becoming a smart utility.

To get this right, organisations must implement an enterprise backbone that accommodates asset and project management, new energies and markets, visualisation of the entire value chain, and mobility apps, Cassoojee says. Mobile technologies that support the field workforce have a vital role to play in driving better ROI from utilities' investments in enterprise asset management and enterprise resource planning solutions.

Today's leading enterprise asset management solutions feature powerful functionality for mobile management of the complete workflow of work orders – from logging status changes and updates, or receiving and creating new orders to concluding the job and reporting time, material and expenses.

Such solutions are easy to deploy and intuitive for end users to learn and use. When coupled with workforce management tools, such solutions unlock significant productivity gains for utilities who are trying to get the most from their workforce and assets.

A modern enterprise solution in this scenario provides an IT hub from which all of the requisite business data can be delivered—one version of the truth. If an investment project is being managed through such a platform then cost, progress, performance, changes and variations can all be viewed in one dashboard.

"As we seek to address South Africa's growing energy demands and provide the power we need to connect every person to the grid and drive industrialisation of the economy, modern enterprise software will not only be about asset utilisation and maintenance," Cassoojee says.

"It could also help manage investment in projects such as constructing new generation facilities, new transmission capabilities or extensions to the electricity grid to get more villages and customers connected. Better management of assets and infrastructure are key to recovery of operational and capital costs, so that we can build a more sustainable energy sector."