

## 'Squandered' South African coal should be declared 'strategic'

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JOHANNESBURG (miningweekly.com) – South Africa is "squandering" its valuable coal endowment and the "miracle mineral" should be declared a "strategic national asset".

Coal consulting engineer Dr **Ed Koper**, who addressed the Fossil Fuel Foundation of Africa's clean coal conference in Johannesburg, believes that South Africa's coal "squandering" should be brought to an end, even if it means the introduction of legislation to force the country to make the best use of coal.

Coal Wealth Botswana executive director **Michael Nightingale**, who addressed the same conference, says that Southern Africa should begin to look at coal, which he describes as "a miracle mineral", in a "totally different light".

South Africa's new Deputy Mineral Resources Minister **Godfrey Oliphant** says that advice will be taken from the Fossil Fuel Foundation about whether coal should be declared a "strategic" mineral, as is already the case with uranium.

Department of Energy deputy director-general **Tseliso Maqubela** says that it is vital that the coal industry conducts its business in "a responsible manner".

Koper says that coal is South Africa's only form of hydrocarbon endowment.

"If we don't use coal diligently, we're going to suffer shortages or compensate for those shortages with very expensive imports," he says.

Nightingale's message to coal miners is that they should stop wasting coal and take steps to make optimum profit out of the mineral that he believes has the capacity to uplift the economy.

"If we don't treat coal as a crown jewel, we're going to lose the game," Koper warns.

"Coal is the most valuable mineral, yet we rush to give it away and waste 63% of its value by burning it to make electricity," Nightingale says.

Currently, all the 120-million tons of coal that South Africa burns in its power stations becomes carbon dioxide (CO<sub>2</sub>) which is blamed for the world's climate change problem.

South Africa's power stations first inefficiently create pollution and then have to research ways to capture and store it at great expense.

"We're spending more money on the back-end of power stations than on making electricity. If you add the carbon sequestration, it's going to be even more expensive," Nightingale adds.

He is against coal being exported so freely and believes that South Africa can generate significant domestic profit by processing it fully domestically.

Koper points out that South Africa has a mining process that extracts coal for specific markets and then leaves the remaining coal unmined.

When it comes to power generation, he questions the country's continued use of outdated pulverised fuel boilers in an era of far more advanced circulating fluidised bed boilers which can make do with lesser grades of coal with higher ash yields and lower calorific values.

Also, synfuels-from-coal producers need to complete moves to use lesser quality coal more effectively in order to lower their considerable (CO<sub>2</sub>) footprint.

Koper advocates that coal-mining reform in Southern Africa should be predicated on comprehensive geological studies prior to mining, in order to understand the coal deposits from a multiuser perspective.

"All our resources are owned by the nation, not by the mining companies. The moment that companies obtain the right to use the assets, they should be made to ensure that they do not sterilise valuable coal.

"If necessary, government must legislate, so that we get the best use out of the coal for the sake of the nation.

"We should mine in the correct way and beneficiation should be done correctly, from both environmental and user perspectives.

"Currently, our coal assets are not benefiting South Africa as a whole, but only benefiting particular companies and companies outside South Africa.

"We need to be aware of the benefit of coal to South Africa in the longer term and prevent Southern Africa from becoming poorer and more dependent on the rest of the world for our energy and commodity needs," Koper says.

Nightingale adds that coal is key to the economic development of Southern Africa, especially against the background of the oil price rising beyond the level of \$80/bbl.

He says that big and small companies should get into coal and wring optimum profit out of it and concurs that coal should be declared a strategic mineral.

"We need to clean up the coal and make other valuable products along the way. We've got to make sure that we get every last drop of value out of coal," Nightingale says.

The Deputy Mineral Resources Minister reminds that the South African government's "New Growth Path" is targeting five million jobs in the next five years.

"This strategy seeks to address one of the biggest challenges facing the postdemocratic South African society – poverty and unemployment.

"We have committed this government to make a difference in people's lives in a real and meaningful way," Oliphant says.

Last year, South Africa produced 250-million tons of coal and used 180-million tons of this coal locally; 60-million-tons-plus was exported.

However, both the quantity and quality of the coal reserves in South Africa is steadily declining.

The main Witbank and Highveld coalfields still contain significant reserves and the upcoming Waterberg coalfield in Limpopo is largely untapped and has been touted as the next major coalfield to be exploited.