

## Implats to take Impala Platinum Refinery off grid

Powering the Impala Platinum Refinery using fuel cell technology, initially with the installation of an 8MW Doosan Fuel Cell, Implats aims to take the refinery off the Eskom grid.



The project is at an advanced development stage with Doosan Fuel Cell America (Doosan) as the technology partner, an international equity partner, advised by Fieldstone Africa, and have entered into exclusive discussions with Implats and Pentaquark Energy to come on board as an experienced strategic partner.

“The project will be funded on a limited recourse finance basis with financial close aimed at meeting the commercial operations by 1 January 2018,” said Zahed Sibda, MD, Fieldstone Africa. Implats have also negotiated natural gas supply to this facility with Springs Light Gas, a supplier of natural gas in Southern Africa.

Nkosinathi Solomon, CEO of Spring Lights Gas said, “We are excited to partner with Implats on this strategic initiative of national economic significance.”

### Operational in mid-2017

Phase one of the project comprising 20 Doosan fuel cells generating 8MW of power will be operational in mid-2017 with the long-term goal to generate 22-30MW of power.

“Doosan is excited to be a part of the clean energy evolution in South Africa with its PureCell Model 400 combined heat and power solution,” said Eric Strayer, VP of international sales for Doosan, adding that, “South Africa is embracing new ways to solve their energy challenges. By deploying fuel cells as a decentralised power generation, clean energy solution, the country could become the prototype for the future of energy production.”

Commenting on the importance of this project, Fahmida Smith, Fuel Cell coordinator at Impala Platinum Refinery, said, “The development of the 8MW fuel cell is an exciting development in Implats’ move towards a carbon-neutral fuel source at its refinery. The technology uses combined heat and power to capture energy generation resulting in a significant reduction in costs over the 20 years.”

## **Local fuel cell manufacturing**

This initiative is the stepping stone of Implats’ strategic objective to fast-track local manufacturing of fuel cells and its componentry within a proposed 16-hectare tributary of the special economic zone (SEZ) in the Springs region. The project, in partnership with the Department of Trade and Industry, the Gauteng Industrial Development Zone and supported by the Ekurhuleni Metropolitan Municipality, is a longer term strategic investment to facilitate platinum beneficiation within South Africa.

It is also a collaborative effort by various departments of the South African government with ties to strategic local and international partnerships through the Impala Roadmap, which aims to develop fuel cell technology to drive knowledge-based skills development and job creation and to increase foreign direct investment in South Africa. This strategy envisages partnerships with international manufacturers and in time, the backward integration of local South African sub-components.

## **Energy conservation programmes**

“The Impala Roadmap represents critical steps in support of the fuel cell industry, specifically for development of manufacturing capacity in South Africa, where the predominant supply of the critical platinum componentry is mined. The opportunities identified through local manufacturing are entrenched in the roadmap through extensive collaboration between industry, government and academia in South Africa,” added Smith.

Over the long term, Implats will maintain a strong emphasis on the deployment of fuel cell technology and energy efficiency projects. The company has invested over R100m on energy conservation programmes and will continue to work with Eskom while participating in various demand-side management programmes and fulfilling a prominent role in developing the nascent fuel cell industry in South Africa as part of Implats’ strategic objective to demonstrate responsible stewardship.

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