

CHAMBER OF MINES

Demonstrating again that the Chamber of Mines of South Africa is a progressive organisation committed to “putting South Africa first”, it is in the process of commissioning a 100kW Fuji platinum fuel cell at its offices in Hollard Street, Johannesburg. The fuel cell will use about 40 ounces of platinum, valued at \$60 000.

With the platinum industry facing immense challenges due to a fall in demand and the recent industrial action, unemployment in South Africa at an all-time high and the country’s energy grid unable to keep up with demand, platinum-based fuel cells tick several boxes when it comes to positive initiatives for change. Platinum fuel cells, such as the one soon to be powering the Chamber’s offices, address four of South Africa’s major issues: its increasing demand for energy; its high carbon footprint; the need to create jobs; and the government’s beneficiation policy.

And the potential for platinum fuel cells to drive economic development is enormous. The fuel cell industry is revolutionising the way power is delivered to all areas of our lives – from cars, mobile phones, computers and the delivery of electricity to our homes and work places.

South Africa is a leading producer and resource base for the platinum and associated group metals (PGMs) that can help mitigate climate change. Platinum already makes a large contribution to reducing global greenhouse gas emissions. Since their introduction in the 1970s, platinum, palladium- and rhodium-based catalysts have delivered massive reductions in harmful emissions from automotive internal combustion engines.

Each year, southern Africa produces more than 90% of the world’s newly-mined platinum. However, demand for platinum has remained relatively flat over the last 10 years.

The global market for fuel cells is still in its infancy and the Chamber’s involvement in market development and its partnership with the South African government is an unique opportunity.

With 50% of six main types of fuel cell power plants globally using platinum, the fuel cell market offers the platinum industry a notable growth opportunity. The development of additional markets for PGMs serves the interest of South Africa as a whole and the interests of the global industry with positive impacts on the environment.

The proactive initiative is a partnership with local energy firm Mitochondria Energy Company (Pty) Ltd, with funding from the Department of Trade and Industry and the Industrial Development Corporation, and the gas supplied by eGoli Gas. Mitochondria was

established to drive the penetration of new energy technologies in the African market.

Mitochondria has partnered with international fuel cell technology providers and is responsible for the engineering, procurement, installation, commissioning, maintenance and commercialisation of the Chamber of Mines of South Africa installation.

The Chamber aims, through this actions, to show international fabricators of fuel cells that South Africa and Africa are viable markets for the local fabrication and installation of platinum-based fuel cells.

The platinum industry already employs some 150 000 people directly. A growing market would create more jobs, and the integration of these technologies into the local market would create even further downstream job creation. The mitigation of greenhouse gasses while using fuel cells can have a profound impact on the carbon footprint of companies, countries and the planet as a whole.

The global market for fuel cells is still in its infancy and the Chamber’s involvement in market development and its partnership with the South African government is an unique opportunity. Early adoption, demonstration and application could provide a platform for local beneficiation and job creation. By using African resources, technology and manufacturing, other countries in Sub-Saharan Africa would be able to provide reliable, green electricity to their people at a micro or macro level, promoting the development of a new, indigenous, technology-based industry.

Global and public private partnerships result in development at many levels. It is time to get on board.



Chamber of Mines of South Africa

Putting South Africa First



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