

PRESS RELEASE

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RENEWABLE ENERGY ON MINING IMPACTED LAND: BUILDING ON THE PAST FOR A GREENER FUTURE

On Thursday 17 March, Promethium Carbon, in cooperation with Harmony Gold, launched an online toolkit to facilitate the development of sustainable and bankable projects which will focus on generating renewable energy, rehabilitating mining impacted land and creating jobs. This toolkit was launched during a function that was hosted at the Chamber of Mines.

The toolkit was the outcome of the Community-Based Renewable Energy Project, funded by the British High Commission in Pretoria. This project effectively integrated renewable energy generation, restoration of mining impacted land and economic development in local communities to create sustainable value.

Taking the diverse nature of South Africa's developmental landscape into consideration, the learnings of the project have been distilled into the easy-to-use toolkit. This toolkit gives guidance on the following:

- Rehabilitating mining impacted land for renewable energy generation.
- Utilising mine rehabilitation and renewable energy for socio-economic upliftment of local communities.
- Integrating renewable energy with the needs of the mining sector to alleviate grid pressure.

Peter Boxer, Deputy British High Commissioner, said: "Governments can have a crucial role to play in the pricing of electricity. But communities can also contribute substantially to driving a sustainable social development agenda. Not only leading to more efficient and dependable provision to their people but also contributing to local economic development."

Roger Baxter, CEO of the Chamber of Mines, said: "The Community-Based Renewable Energy Project is an environmentally and socio-economically sustainable initiative that is aligned with the Chamber of Mine's objective of creating viable programmes that best serve mining communities. The outcomes of the project highlight that, post mine life, sustainability of communities and land rehabilitation can be effectively achieved."

"Through projects such as the Community-Based Energy Project, mining's potentially negative impact on the environment can be transformed into an economically-viable opportunity for mining communities. The project further equips the community with skills that will enable long-term sustainability of the project."

"South Africa is faced with a number of difficult and interrelated socio-economic challenges, one of which is energy poverty. Energy poverty is recognised around the world as a major impediment to socio-economic growth. A lack of energy, or electricity, has major societal impacts ranging from educational constraints to health-related issues. In South Africa, access to energy plays a critical role in achieving the development objectives as set out in the National Development Plan," explained Robbie Louw, director of Promethium Carbon.

"Mining has traditionally impacted heavily on land, both within the boundaries of the mining operation and in surrounding areas. This has left South Africa with large tracts of unrehabilitated

mining land. Current thinking shows that there is a sustainable way to approach mining land rehabilitation which is cost and environment conscious,” said Louw.

The Community Based Renewable Energy Project proved that there is a dynamic synergy between mining land rehabilitation and renewable energy. Renewable energy projects require substantial areas of land and as a result offer unique solutions to traditional rehabilitation challenges.

By way of example, Professor Wayne Truter, a Land Rehabilitation, Rangeland and Forage (Grass and Legume) Specialist affiliated to Grass SA and University of Pretoria, discussed the application of phytoremediation for in situ removal of contaminants from soils. Professor Truter explained that: “Grass bioenergy production, as an example of phytoremediation, is a cost-effective energy supply, with a high rural economic development potential, is environmentally friendly, and has a positive impact on greenhouse gas production and soil conservation. Because of this, mining land rehabilitation is a catalytic opportunity to integrate energy needs and community development needs.”

Melanie Naidoo-Vermaak, Executive of Environmental at Harmony commented: “Harmony fully appreciates that we have a critical role to play in leaving a sustainable mining legacy. As a company we view the mitigation of our carbon footprint as a key priority and in light thereof we are excited to investigate renewable energy and development alternatives which will help us achieve our goals. As such, Harmony maintains that mining and sustainability can co-exist as demonstrated by this initiative. This project concept delivers multiple imperatives through a single initiative: a sustainable rehabilitation strategy, a community development programme and generation of renewable energy to the benefit of Harmony’s operations. More importantly, the project concept facilitates a secondary economic base for local communities that can prevail beyond the presence of the mine. We remain proudly committed to this project and to the societal benefits that could be ploughed back into our communities through its implementation.”

Mr Louw, further emphasised that: “There is a unique opportunity to augment an economy based on non-renewable resources with an economy based on renewable resources; which is green energy. Practical renewable energy projects have the potential to address both community energy needs as well as contribute to alleviating grid pressure.”

In summary, this practical toolkit will assist rehabilitation practitioners and project developers to optimise synergies between impacted land, the need for energy and local economic development.

The long-term objective of the project is to support and facilitate the development of programmes which will build on a 150 year old mining legacy to ensure post mine life sustainability and a greener future.

Mr Boxer concluded; “The mining industry continues to play a major role in South Africa’s economy and is working towards leaving a positive legacy on which South Africa and its partners can build to achieve the country’s development objectives.”