

ANGLO MINE LAUNCH ITS FIRST nuGEN TRUCK IN AFRICA

MAPELA: President of the Republic of South Africa, Cyril Ramaphosa visited Mapela village in Mogalakwena Local Municipality to witness a history when Mogalakwena Anglo Platinum unveiled the world's largest hydrogen powered haul truck which can carry a 290ton payload. The launch of the nuGen truck is a remarkable milestone in the journey towards an industry and an economy that is more sustainable, more innovative and more resourceful.

During his address President Ramaphosa said, "Mining has been, and continues to be, a vital pillar of the economy, creating value and fuelling productive activity far beyond mining areas. In ways both beneficial and harmful, mining has shaped this country over more than 150 years."

"It has driven our industrialisation and secured our position in the global economy. Throughout its history, the mining industry has been at the forefront of technological advance in response to the ever-evolving nature of its operations, said Ramaphosa.

Yet, even as the technology changed, even as machines have gotten bigger and better, one thing has remained the same: mine haulage has been powered by fossil fuels. Until now. Until the launch today of the world's largest mine haul truck powered by green hydrogen that will be produced at the mine site.

Substantial investment in research and development has enabled mining houses like Anglo American to ride the crest of successive industrial revolutions, from fossil fuels and steam power in the first, to electrification and power generation in the second, to digitisation, automation and connectivity in the third.

"And now, with robotics, artificial intelligence, machine learning, and the likes of the nuGen truck, Anglo American is powering ahead into the fourth industrial revolution. The launch is not only about investment in research and development. It is also about vision, commitment and leadership," said Ramaphosa.

President added that, "I am told that once plans to convert or replace the entire diesel-powered haul truck fleet with nuGen technology comes to fruition, Anglo could remove up to 80 per cent of diesel emissions at its open pit mines. As a signatory to the Paris Agreement to combat climate change, South Africa is committed to take the necessary actions to transition our economy along a low-carbon, climate resilient, inclusive path."

"We have an obligation not only to honour international agreements. We also have an obligation to the people of this country, and to the generations that will follow, to ensure that they can live healthy, productive, sustainable and meaningful lives. We have an obligation both as government and as companies to reduce emissions and work towards achieving carbon neutrality," said Ramaphosa.

Anglo American's FutureSmart Mining programme is about marrying technology, digitisation and sustainability to transform the nature of mining. nuGen brings Anglo American closer to achieving its goals of carbon neutrality across all its operations by 2040, a 30 per cent

improvement in energy efficiency, and an absolute 30 per cent reduction in operational greenhouse gas emissions by 2030.

The specs of this nuGen truck are impressive, particularly for those of us who like to delve into technical detail. The nuGen truck has a 2MW hydrogen-battery hybrid that generates more power than its diesel predecessor.

“It has capabilities to carry a 290 tonne payload, making it the first time a truck of this size and load capacity has been converted to run on hydrogen. It has power management and battery systems that will be tailored for each mine to improve efficiency and energy recovery. Yet, what is most impressive is that this truck and those to come will be powered by an end-to-end integrated green hydrogen production, fuelling and haulage system, with plans to build a complex here at Mogalakwena,” said Ramaphosa

“What we are launching here today is not merely an impressive piece of machinery. It is the genesis of an entire ecosystem, powered by hydrogen. Developing the hydrogen economy is a strategic priority for our country. Not only will it be a valuable driver of economic growth and employment; it will also contribute to our decarbonisation efforts. The nuGen project provides demonstrable proof of the potential of this sector. It takes us from conceptualisation to reality,” continued Ramaphosa.

“That is why it is imperative that the work being undertaken by the Department of Science and Innovation and the South African National Development Institute in partnership with Anglo, Bambili Energy and ENGIE into the feasibility of a hydrogen valley needs to proceed apace. The proposed hydrogen valley, stretching from Limpopo to Gauteng to KwaZulu-Natal, will position South Africa as a global centre for green hydrogen production, said Ramaphosa.

“It will lead to the creation of new industries, aid the decarbonisation of sectors like transportation, manufacturing and construction, and create new jobs for our people in all these provinces. As a country, we are determined that we derive the full social and economic value of our mineral and other natural resources,” added Ramaphosa.

“The Department of Mineral Resources and Energy has a clear beneficiation strategy to translate our comparative advantage in terms of minerals endowment into a national competitive advantage. This strategy is aligned to our country’s industrialisation, green economy, economic diversification and job creation objectives. Developing the hydrogen economy is a critical component of the Economic Reconstruction and Recovery Plan, which we launched in 2020 to rebuild our economy in the wake of the COVID-19 pandemic,” said Ramaphosa.

The National Hydrogen Society Roadmap that was approved by Cabinet late last year will give added impetus to the task of building a sustainable and resilient economy. The beneficiation of platinum group metals to produce clean energy will support energy transition by reducing emissions and dependence on fossil fuels.

“It is testament to the visionary nature of the leadership of Anglo American that a mining house for which fossil fuels have been an integral part of their business, is now leading the way in the use of clean energy in its operations. I want to encourage you to forge ahead with your plans to ensure that beneficiation embraces all in the communities in which your operations are located,” said Ramaphosa.

Ramaphosa emphasised that, For a country like South Africa with such abundant mineral resources, there is no excuse for anyone or any community to be left behind. The green hydrogen value chain that Anglo is playing such an integral part in developing must lead to the creation of new businesses and supply chains. It must result in more opportunities and employment for the South African people, starting right here in Limpopo.

“Congratulations to Anglo American and its partners on this milestone. It demonstrates the value of innovation, vision, commitment and – above all – partnership as we work to achieve the UN Sustainable Development Agenda of people, planet and prosperity,” said Ramaphosa.

The Minister of Mineral Resources and Energy, Gwede Mantashe, Limpopo Premier Chupu Mathabatha, Limpopo MEC for Economic Development, Environment and Tourism, Thabo Mokone, Waterberg District Municipality Executive Mayor’s Representative Cllr Ben Monare, Mogalakwena Local Municipality Mayor Cllr Ngoako Taueatsoala and other dignitaries were part of this historic event.