

# Namdeb Looks at Electric Buses to Accelerate Carbon Neutrality Journey

ESTER MBATHERA

NAMDEB has joined the rest of the De Beers Group in their commitment to become carbon neutral by 2030. In the pursuit to achieve this bold commitment, a Carbon Neutral Strategy has been developed.

The strategy has four target thrusts, namely to reduce intensity, replace fossil fuels, replace fossil electricity and remove carbon emissions.

One of the initiatives under the replacement of the fossil fuel strategic thrust involves acquiring a battery-operated passenger bus for test purposes, which will facilitate a complete transition to electrical-driven buses (if found viable).

A technical study was conducted in 2021 to determine the appropriate battery electric bus and charging stations.

The Namdeb engineer who championed the technical study, Pankratius Kondjamba, said the company was able to find a 65-seater battery-electric bus (e-bus) that meets its operational requirements, as well as technical specifications.

“The bus is designed for right-hand drive and can operate, at full capacity, on gravel and tarred roads with a maximum gradient of 10%,” Kondjamba said.

He further explained that the



Photo: Namdeb

**DECARBONISING....** Namdeb has acquired a 65-seater e-bus for test purposes which will facilitate the company's transition to electrical vehicles and reduce dependence on fossil fuels.

battery is designed to cover at least 250km, including air conditioning, on a single charge.

“The electric bus is currently being manufactured and expected to be delivered in July, serving as a pilot

test for battery-electric vehicles and reducing the dependence on diesel,” he said.

Kondjamba emphasised Namdeb's commitment to supporting the government in its national de-

carbonisation efforts, aligned with the Paris Climate Agreement's goal of limiting global temperature rise to below 2°C.

“This is also a clear demonstration of Namdeb's commitment to doing

the right things for a better tomorrow,” he said.

The company also has other innovative carbon-neutral initiatives that are at an advanced stage of implementation.

#### These include:

A battery-operated forklift scheduled for delivery by July 2023

A 150-kW rooftop solar photovoltaic (PV) system for the main office block at Oranjemund is expected to be installed and fully commissioned in the third quarter of 2023

Dewatering pumping (of mining areas) optimisation through redesigning the pumping system, as well as the implementation of a centralised control room.

Kondjamba said work is also in full-swing on other strategic thrusts including evaluating options to electrify existing diesel operations, exploring alternative green fuels, and studying nature-based carbon capture solutions in their mining areas.

“The potential solutions we have outlined will not only help us achieve a carbon-neutral state, but also provide secondary benefits such as community development, job creation, and improved biodiversity. This is a testament to the company's ongoing commitment,” Kondjamba said.



REVOLUTIONIZE EFFICIENCY WITH  
THE POWER  
OF ROBOTIC PROCESS  
AUTOMATION (RPA)

With Green Enterprise Solutions (Pty) Ltd



# Namdeb Reshaping Future of Mining Operations

• **ESTER MBATHERA**

NAMIBIA'S diamond mining company, Namdeb, is steadfast in its pursuit of innovation, constantly pushing the boundaries of mining operations. Earlier this year, the company adopted the use of Surface Miner technology, an advanced approach to mechanical bedrock mining at its Southern Coastal Mines along the Atlantic Ocean.

Eduardo Develo, the mine overseer at Namdeb's Southern Coastal Mine, said the Surface Miner technology was tested, evaluated and incorporated into the Namdeb life extension plan.

Develo explained that the use of Surface Miner technology was identified as a means of mechanical bedrock mining to complement and improve the current gully mining method by cutting and flattening uneven bedrock and also reducing the depth of gullies. He said due to the undulated terrain in the current mining operation, excavators experience under-carriage damage and by having larger flat areas to work on, this reduces the damage.

Namdeb has over the years employed various innovative mining methods to extract diamonds from alluvial deposits, utilising specialised equipment like vacuum extractors, dredgers, accretion conveyors and drill platforms.



Photo: Namdeb

**HI-TECH...**Surface Miner being applied at Namdeb's Southern Coastal Mine.

Develo said the Surface Miner effortlessly cuts the ore, making it easily accessible for stockpiling, loading and transportation to the main treatment plant and therefore increasing the overall rate of production.

The technology precedes the current conventional bedrock cleaning process by flattening the undulating bedrock footwall in layers of 200-300mm using a cutting drum that

is fitted with replaceable tungsten carbide-tipped picks," the overseer said.

The technology is extensively used and well-proven in open cast mining operations across the world, especially in softer, less abrasive materials such as coal and limestone. It had to be proven in Namdeb's Southern Coastal Mine environment via an extensive pilot testing programme from 2021 to early 2023.

Prudence Shipandeni, process manager in the bedrock division at Namdeb, said the result indicated that the Surface Miner provides a flat bedrock working surface, which reduces the amount of undercarriage damage and increases the overall production rate significantly.

It also provides a safer environment for the bedrock operational staff due to the flat surface and shallower gullies.

"A wide range of information was obtained to inform the production rate, fuel consumption, wear rates, mechanical availability, and mining utilisation, the level and type of skills required to maintain and operate the machine, as well as a better understanding of the responsiveness of the machine when encountering various rock types and underfoot conditions found in the Namdeb environment," said Shipandeni.

She added that Namdeb has since integrated the use of the Surface Miner into its mining operations. Since the official launch of the operational phase in February, the Surface Miner has been instrumental in increasing the rate of mining, enhancing equipment availability, and reducing mining costs.

"With the first production cut for 2023, the surface miner continues to make significant improvements with an average increase rate from 596m<sup>2</sup> a day to 1100m<sup>2</sup> a day when the traditional bedrock cleaning crew was in one of the Southern Coastal mining sites. Approximately 173 000 m<sup>2</sup>/year is targeted in an area for the Surface Miner," she said.

Early results indicate that the Surface Miner is advantageous in improving the conventional cleaning rate and safety by reducing the cleaning of uneven and deep gully areas and improving costs savings by reducing premature equipment breakdowns.

# Salt Essential: Taking the Lead in Cyber Hygiene



Photo: Contributed

**RAISING AWARENESS...**Vanessa Maresch addressing one of the Cybersecurity Awareness Sessions with the information ministry.

• **VANESSA MARESCH**

SALT Essential IT is well known for promoting cyber hygiene and preventing cybercrime. This initiative, in partnership with the Ministry of Information & Communication Technology (MICT), supports the company's core mission to enable people to use technology to enhance their efficiency and creativity, so that they can align their purpose with their employer's and be future-fit.

The world is changing. People want more than just a paycheck. They want to do what they love and

be recognised for their contribution. They want to work with leaders, not for managers. We want to do exceptional work that matters.

To do exceptional work, we need time to focus and easy access to information, tools, talent and resources. We also need work-life harmony and flexibility. That's how I am able to write this article on my phone on a Saturday morning, when I feel creative and relaxed. It only took me 15 minutes, instead of three hours on a Monday with all the office interruptions.

But I also want to be protected

from work messages when I'm off duty, so I don't get burned out or stressed. That's where Viva from Microsoft comes in. It helps us create a positive culture that supports our goals, values and strategy. It also uses artificial intelligence (AI) and machine learning to enhance our creativity and productivity.

## INTRODUCING APPRADA

Missing from the Microsoft Viva, however, is the actual recognition of the work done by employees. That is why Salt developed Appra-

**Apprada is a versatile platform that works on a mobile phone, in a browser and in Microsoft Teams and Azure Active Directory. You can tailor it to suit your needs and preferences. It promotes a culture of fairness and transparency in your organisation. It is also a platform to show gratitude and respect for your colleagues.**



da, the ratings app that recognises behaviour aligned to the company's values and goals. Spoiler alert: a healthy company culture is a prerequisite.

Apprada lets you exchange honest feedback with your leaders, managers, customers and peers. The application helps you monitor performance, strengths and growth areas in real-time and with specific examples. You can leverage this feedback for career growth, recognition and learning.

Apprada is a versatile platform that works on a mobile phone, in

a browser and in Microsoft Teams and Azure Active Directory. You can tailor it to suit your needs and preferences. It promotes a culture of fairness and transparency in your organisation. It is also a platform to show gratitude and respect for your colleagues.

Apprada is the ultimate tool for improving and aligning your workforce with your company values and that is something worth celebrating.

*Vanessa Maresch is the commercial expansion empowerment specialist at Salt Essential IT.*