

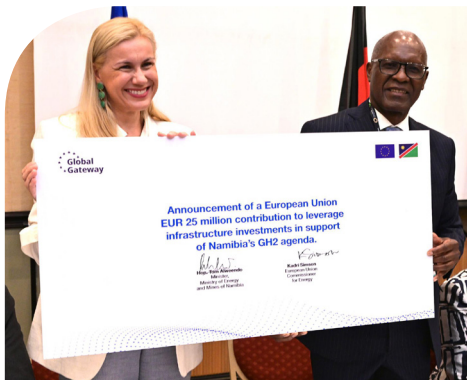


# Etango

Namibia's Leading Renewable Energy Technologies  
*Magazine*

SEPTEMBER-OCTOBER 2024

## HYIRON GETS ROLLING



**EUROPE'S N\$700M BOOST FOR  
INDUSTRIALISATION AGENDA**



**PRESIDENT MBUMBA TALKS UP  
SUSTAINABILITY IN HAMBURG**



**CHINESE PARTNERSHIP TO BUILD  
NAMPOWER 100MW SOLAR PARK**

## Hyphen is a green hydrogen development company working in partnership with the Government of the Republic of Namibia (GRN).

Following a GRN run competitive tender process, Hyphen is developing sub-Saharan Africa's largest and only fully vertically integrated green hydrogen to green ammonia project.

Image: Hyphen kickstarted its meteorological mast programme.



### Our Vision

To be Namibia's leading green hydrogen project developer and supplier to international, regional, and local markets



### Our Values

- Lead by example
- Act with care and integrity
- Socially responsible upliftment
- Development and empowerment
- Manage resources sustainably and efficiently

# SA 10% Import Tax on Solar Modules Bad For Namibia

South Africa has implemented a 10% import duty on solar photovoltaic (PV) panels, cells, and modules, in a move aimed at boosting the local manufacture of these products.

Currently, a large chunk of these products entering South Africa and Namibia are imported from China where they are cheaper and of an advanced technology. According to the International Energy Agency (IEA), China controls over 80% of the global manufacturing stages of solar panels. This dominance in the solar panel manufacturing industry has allowed China to significantly drive down the cost of solar energy globally.

However, South African authorities want to put a check on this trend and encourage companies to rather manufacture these components in South Africa, so that the benefits of manufacturing jobs and investments from the solar boom do not bypass the country.

Several Namibian companies, who import the bulk of their panels, cells, and modules from South Africa, have expressed concern on the 10% tax on imported panels as this translates into a 10% increase in the total cost of installation of solar systems. The additional costs will simply be passed on to customers. The slow uptake of solar technologies in Namibia has already been attributed to high initial costs of owning these systems. The additional tax will not help the situation.

While larger projects may absorb these extra costs, smaller projects, with tighter profit margins, could face reduced

profitability, delays or even become financially unviable.

Some industry players are also skeptical on whether South African companies would be able to compete with Chinese companies owing to the large production costs in the country, including the high cost of electricity. In addition, the production of solar PV cells, modules, and other components requires advanced manufacturing processes, skilled labour, and well-developed infrastructure.

While solar PV technology has emerged as a pivotal component of the global energy shift, the development of a solar PV manufacturing sector on the African continent as a whole faces several challenges, such as the concentrated nature of the global solar PV value chain, entry barriers imposed by established global players, and a lack of technological capacity.

Although we fully support and encourage the local production of solar PV components, we remain cognizant of the fact that high prices of these components have a negative effect on the uptake of these technologies. The affordability of solar technologies to most Namibians has slowed down their deployment, especially in marginalised rural communities.

Happy Reading!

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## Cover picture:

**HYIRON MILESTONE:** Hylron Green Technology has taken delivery of its specialised rotary kiln to the Hylron Oshivela Project, outside Arandis. This critical piece of equipment is a cornerstone of the project's operations, enabling the efficient and sustainable production of iron at zero emissions. **Photo: Hylron**

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**GREEN COMMITMENT:** EU Commissioner for Energy, Kadri Simson, and Mines and Energy Minister Tom Alweendo put pen to paper to finalise the agreement on the EU to support the Namibian Green Industrialisation Agenda.

# Europe's N\$700m Boost for Namibia's Industrialisation Agenda

Namibia's Green Industrialisation Agenda has received a significant boost with the announcement of four new Team Europe initiatives, collectively amounting to Euro 36, 9 million (approximately N\$706 million).

The initiatives were announced and signed on the sidelines of the inaugural Global African Hydrogen Summit (GAH2S) held in Windhoek in September.

European Union Commissioner for Energy, Kadri Simson said the new initiatives reaffirm the commitment under the EU Global Gateway Strategy and by Team Europe to support Namibia in realising the late President Hage Geingob's vision of becoming a global hub for green hydrogen production and a leader in the global decarbonisation agenda.

"These initiatives also mark critical milestones in the implementation of the Strategic Partnership on Green Hydrogen and CRM Value Chains, signed in 2022. They will contribute to reinforcing our commercial relations in the green hydrogen and critical raw materials sectors, increase employment opportunities in Namibia and help both Namibia and the EU undergo their green transitions," said Simson.



These initiatives also mark critical milestones in the implementation of the Strategic Partnership on Green Hydrogen and CRM Value Chains, signed in 2022. They will contribute to reinforcing our commercial relations in the green hydrogen and critical raw materials sectors, increase employment opportunities in Namibia and help both Namibia and the EU undergo their green transitions.

**-Kadri Simson**

An amount of Euro 25 million (about N\$478 million) in grants will be made available by the EU to support the Namibian Green Industrialisation Agenda. This contribution aims to leverage many public and private sector investments across the hydrogen value chain, from production to transportation and storage, as well as downstream industries.

In developing a sustainable green hydrogen value chain, the EU grants will seek to increase local value addition, thereby supporting Namibia as it strives to move up higher in these value chains and create additional jobs.

The "EU-GET.transform - Accelerating the Energy Transition in Namibia" project, co-financed by the EU and Germany, will provide Euro 2.7 million (N\$51.6 million) in technical assistance to support long-term energy planning, renewable energy generation, and grid integration in collaboration with key Namibian stakeholders.

German State Secretary Jochen Flasbarth said Namibia holds immense potential to lead Africa's continental renewable energy transition.

"Through the EU-GET.transform initiative, we are honoured to support this vision. And we are committed to supporting Namibia not only in its own energy transition but also to play a significant role in the rapidly growing global green hydrogen market, as green hydrogen will play an essential role in the green and sustainable decarbonisation of the global economy. While significant progress has been made, ongoing cooperation is vital to achieve these ambitious goals," said Flasbarth.

The third announcement highlighted a Euro 8.8 million (N\$168 million) commitment from the Netherlands, Germany and the EU to support the Namibian Green Hydrogen Programme (NGHP), which is responsible for coordinating the implementation of the ambitious Namibian Green Hydrogen Strategy and the Green



**ENERGY TRANSITION:** Mines and Energy Minister Tom Alweendo with senior EU officials following the signing of agreements that will inject over N\$700 million into Namibia's Industrialisation Agenda.

Industrialisation Blueprint.

Janneke Vrijland, the Deputy Ambassador of the Kingdom of Netherlands in Pretoria, emphasised the strong relationship established with Namibia, which will continue to facilitate the realisation of the NGHP. The contribution from the European partners will help the NGHP to fulfil its key mandate: to create a conducive environment for investment, technology development, and market development to harness the country's renewable energy potential and to position Namibia as a global leader in the production and export of green hydrogen.

James Mnyupe, the Green Hydrogen Commissioner and Head of the NGHP, said: "The support from our EU partners will not only drive the development of Namibia's green hydrogen industry but also contribute to our broader goals of economic diversification, Green Industrialisation, and more importantly, creating sustainable jobs for our youth and beyond."

Germany's BMWK and Namibia's Ministry of Industrialisation and Trade signed an institutional partnership to develop a regulatory framework and quality infrastructure for Namibia's Green Hydrogen Economy. The agreement will see an injection of a further Euro 430,000 (N\$8.2 million) into Namibia's Green Industrialisation agenda.

Parliamentary State Secretary at the Federal Ministry for Economic Affairs and Climate Action Michael Kellner said: "Adherence to international standards enables seamless collaboration with the German industry and thereby improves trade relations between the two countries. The partnership between the Federal Ministry for Economic Affairs and Climate Action and the Namibian Ministry of Industrialisation and Trade also makes tangible solutions accessible to advance strategies for the necessary tripling of global expansion in renewable energy and the infrastructure required for it. By working together, we can accelerate the development of climate-friendly infrastructure, transformative energy technologies, and the establishment of clean energy supply chains."

In addition, Belgium through its development agency Enabel, is mobilising the world-renowned ecosystem of Belgian public and private expertise in the field of green hydrogen.



**SUCCESS:** Vice President Netumbo Nandi-Ndaitwah was the guest of honour at the well-attended summit which has received resounding praise from governments, public sector agencies, developers, investors and the private sector for having achieved the objectives of all stakeholders.

## Global African Hydrogen Summit Delivers on Pledge to Fuel Africa's Green Industrialisation

From its international soft launch at COP28 UAE in Dubai last December, the 'Road to Namibia' campaign in support of the Global African Hydrogen Summit (GAH2S) has evolved into a movement to fuel Africa's green industrial revolution.

Following nine months on the road across Africa and around the world advocating, lobbying and raising awareness, the 'Road to Namibia' campaign rolled into its final destination when Windhoek hosted the GAH2S from 3 – 5 September.

Vice President Netumbo Nandi-Ndaitwah, who was the guest of honour at the well-attended summit, said Namibia was honoured to have been chosen to host the GAH2S.

Themed 'From Ambition to Action: Fuelling Africa's Green Industrial Revolution', the inaugural GAH2S received resounding praise from governments, public sector agencies, developers, investors and the private sector for having achieved the objectives of all stakeholders.

The Summit's sectoral patron Tom Alweendo, the Minister of Mines and Energy, had earlier remarked that the "Global African Hydrogen Summit will be the first platform of its kind to be leveraged by African governments, by investors, financiers, scholars and the public, in order to unlock additional opportunities for our continent and its partners. It will also provide a platform for the global players in the hydrogen value chain to showcase their projects, their plans and technologies to the African continent."

As a catalyst for driving change, the GAH2S witnessed ten MoU announcements, partnership declarations and deal signings, including:

- €25 million in grants from the European Union to support the Namibian Green Industrialisation Agenda. The initiative, which includes commitments from Germany and the Netherlands, will be channelled via the SDG Namibia One financing vehicle for green hydrogen

investment in Namibia including technical assistance to support long-term energy planning, renewable energy generation, and grid integration in collaboration with key Namibian stakeholders including the Namibian Green Hydrogen Programme (NGH2P) and Namibian Standards Institution (NSI).

- Zhero announced the launch of a green ammonia gigawatt-scale project in Namibia. With co-developers Envision Energy, it aims to produce 500,000 tonnes annually from 2029.
- GreenGo Energy signed a MoU with local Namibian developer InnoSun Energy Holdings to co-develop solar and wind projects dedicated to green hydrogen production at scale.
- GreenGo Energy announced the signing of a memorandum of understanding (MoU) with local Namibian iron mining company, Lodestone. This collaboration will explore innovative solutions to integrate green hydrogen into the steel production process.
- Namibian cabinet approved the signing of a MoU on cooperation on renewable energy, clean energy and hydrogen between Namibia and the United States of America.
- International Energy Agency to collaborate with Ministry of Mines and Energy and the Namibian Green Hydrogen Programme (NGH2P) on Renewable Energy Opportunities for Namibia.

The Summit unlocked the potential of the hydrogen opportunity in Africa and harnessed its projected impact on achieving a sustainable and equitable energy transition globally.

James Mnyupe, Presidential Economic Advisor and Head of Programme, Namibia Green Hydrogen Programme, said "the Summit was a huge success and will come back to Namibia next year from 9 – 11 September 2025."

# Global African Hydrogen Summit in Pictures



# Hylron Oshivela Project Reaches Major Milestone with Delivery of Specialised Rotary Kiln

**H**ylron Green Technology is pleased to announce the successful delivery of its specialised rotary kiln to the HyIron Oshivela Project, outside Arandis.

This critical piece of equipment is a cornerstone of the project's operations, enabling the efficient and sustainable production of iron at zero emissions.

HyIron Managing Director Johannes Michels said with the delivery of the rotary kiln, the Oshivela project was well on track to start production within this year, which would make Namibia potentially the world's first to produce iron 100% based on hydrogen and therewith at zero CO2 emissions.

Michels said the "rotary kiln is a state-of-the-art piece of machinery designed specifically for the HyIron Oshivela Project". Its advanced features include:

- **Energy Efficiency:** The kiln incorporates cutting-edge technology that is the most energy efficient iron reduction technology currently on the market.
- **Water Recycling:** As an airtight system in which Hydrogen (H2) reacts with Oxygen (O) of the iron ore (or iron oxide FExOy) the resulting H2O – Water can be recycled in the process and therewith reused in the production.
- **Green iron ore:** The kiln's design allows the use of very fine iron ore powder that could not be used in most of the traditional iron making processes. Also, this allows for new ways in mining.
- **Modularity:** The technology of the kiln allows for a modular growth, that is well adaptable to the available capital, energy, infrastructure and iron ore supply.

"The delivery of the rotary kiln marks a significant milestone in the construction and development of the



**VITAL EQUIPMENT:** The rotary kiln is a state-of-the-art piece of machinery designed specifically for the Hylron Oshivela Project.



The delivery of the rotary kiln marks a significant milestone in the construction and development of the Hylron Oshivela Project. This project is poised to play a vital role in Namibia's economic growth, green industrialisation and diversification, while also contributing to the country's sustainable development goals.

-Johannes Michels



**ON TRACK:** With the delivery of the rotary kiln, the Oshivela project was well on track to start production within this year, which would make Namibia potentially the world's first to produce iron 100% based on hydrogen and therewith at zero CO2 emissions. **Photos: Hylron**

HyIron Oshivela Project. This project is poised to play a vital role in Namibia's economic growth, green industrialisation and diversification, while also contributing to the country's sustainable development goals," said Michels.

HyIron Green Technology was founded in 2020 with the goal to decarbonise the heavy industrial process of iron making - one of the world's largest emitters of CO2 and driver of climate change. It was born in Namibia with Namibian and international partners.

Namibia is one of the countries where the threatening effects of climate change are already visible. This visibility lies in the direct and indirect effects of climate change on biodiversity and becomes very apparent where previously livestock was farmed successfully but today, with increasingly frequent extreme weathers, it has become ever more difficult to make a living from farming or to create wealth and to guarantee a constant supply of food.

"The Oshivela project, therefore, is meant to not only prove the technical and economic feasibility of zero emissions iron making, but also to showcase the potentials of green industrialisation and most importantly, that there are technically and economically feasible alternatives to CO2 intensive industries that can be realised at high speed. This offers opportunities in very new value chains spanning globally," Michels said.

The HyIron Oshivela Project recently won the Hage Geingob Award for the Namibian Hydrogen Project of the Year at the Global African Hydrogen Summit (GAH2S). The award recognises the project's impact on Namibia's hydrogen sector, highlighting its role in driving innovation, community and youth engagement, promoting local content and knowledge transfer

through people development.

Mines and Energy Minister Tom Alweendo said the Oshivela Project has not only fostered technical expertise but also strengthened commercial capabilities in the mining sector.

Located about 30km east of Arandis, the project is on course to commence production this year with nearly 50% of the production plant completed, while work on the 25MW solar power plant is at an advanced stage.

The first phase of the project is earmarked to produce 15 000 tonnes of green iron. HyIron aims to produce about 200 000 tonnes of green iron in the second phase of the project.

The Oshivela Project will be one of the biggest primary production sites of green iron in the world and the project is expected to avoid 27 000 tonnes of CO2 emissions per year in its second phase, equivalent to 50% of the CO2 emissions of Namibia's power industry.

#### HOW GREEN IRON WILL BE PRODUCED

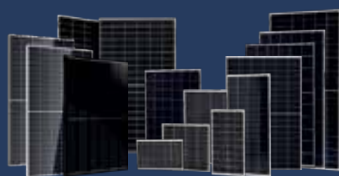
At Oshivela, renewable energy will replace fossil fuels in the traditional production process and renewable energy will be produced by a solar and wind energy plant. In the first phase, a 25MW solar photovoltaic installation will supply carbon-free electricity to the plant for the first scaled-up production phase. This will increase by 18MW of wind energy and 140MW rated power solar energy.

The power will mainly supply energy for the water electrolysis to produce reduced agent hydrogen. The hydrogen is then transported into the furnace where it reacts with the oxygen of the iron ambient pressure to become water again, whereby water is re-used in the process.

# NAMIBIA'S LEADING SOLAR ENERGY PARTNER AND SUPPLIER.



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**LEVERAGING TRANSFORMATION:** During the Hamburg Sustainability Conference President Mbumba participated in the opening panel, alongside the Managing Director of the International Monetary Fund, the President of the World Bank and Chancellor Olaf Scholz of the Federal Republic of Germany.

## President Mbumba Talks up Sustainability in Hamburg

Namibia stepped up its role in leading the fight against Climate Change by taking the lead in sustainability discussions at the Hamburg Sustainability Conference held in Germany at the beginning of October.

The conference, which took place on 7 and 8 October, provided an opportunity to catalyse dialogue between governments, academia, civil society and business leaders.

President Nangolo Mbumba, who led the Namibian delegation to the conference, said he believed in the "path of hope, which is centered on the fight against climate change; the promotion of international peace; the eradication of poverty and hunger; and the responsible harnessing of digital technologies for the benefit of all humanity."

Namibia and Germany were co-facilitating the 'United Nations Summit of the Future', which took place in New York on 20 and 21 September.

"We need platforms of this nature to dialogue and to entrench the path of hope and the momentum the Summit of the Future created for partnership and collective action," said Mbumba.

He said the UN Summit of the Future and the adoption of the Pact for the Future provided the international community with a window to strengthen global agreements and institutions to ensure the effective implementation of the Sustainable Development Goals (SDGs).

"The International System must be equipped to finance these goals through an innovative global financial architecture. We cannot talk about renewal of international relations and implementation of the Pact if we don't reform the global financial architecture to respond better to the needs of the

Global South," the President said.

Mbumba said Namibia was developing a portfolio of green hydrogen projects which will help accelerate the achievement of SDGs in the country. One example of such a project is the Hyphen Hydrogen Project which the government has committed to investing in.

"The project aims to produce 2 million tonnes of green ammonia, which should abate 3 million tonnes of CO<sub>2</sub> emissions. The project will produce excess electricity which will be channeled into our own grid, allowing Namibia to deal with improving electricity access to our people," Mbumba said.

Hyphen has opened up an office in Hamburg to investigate the viability for some of the ammonia to be exported there, to assist with Germany's decarbonisation efforts.

The Head of State said in addition to the work being done by Hyphen, Namibia was looking to develop the port of Walvis Bay into a global shipping hub. A partnership between Namibian private sector players and a Belgian shipping company was looking to start constructing the first ammonia bunkering hub in the first quarter of 2025.

"In addition to these initiatives, our green hydrogen programme is working closely with the Maersk-McKinney Moller Centre for Zero Carbon Shipping to develop green maritime corridors, providing clear and tangible pathways to transport clean molecules from the ports of Lüderitz and Walvis Bay to Germany and the rest of the world.

"In a nutshell, for green hydrogen and its derivatives to become a meaningful element of decarbonising hard to abate sectors, global partnerships are the key ingredients that is required," President Mbumba said.

# THE ULTIMATE PORTS EXPERIENCE

The Ports of Walvis Bay and Lüderitz lie on the West Coast of Africa. The Namibian Ports Authority is a body corporate established by the Namibian Ports Authority Act, 1994 (Act 2 of 1994) as a state-owned enterprise. Namport's mandate is to exercise control and manage Namibia's ports, lighthouses and other navigational aids in Namibia and its territorial waters.



## OUR SERVICES & THE INDUSTRIES WE SERVE

The Port of Walvis Bay oversees container imports, exports, and transshipments, along with bulk and breakbulk cargo for various industries, including petroleum, mining, construction, and fishing. Additionally, it caters to the tourism sector through a dedicated cruise liner berth and terminal.

The Port of Lüderitz oversees the export of mining commodities from the southern region of Namibia and the Northern Cape of South Africa. Additionally, it supports the local fishing industry and operates as a supply base for the oil and gas drilling campaigns.

## TRADE ROUTES NAMPORT SERVES

Strategically located along the Namibian coastline, Walvis Bay provides direct access to principal shipping routes, making it a natural gateway for international trade. Its world-class infrastructure and equipment ensure reliable and safe cargo handling.

The favorable temperate weather conditions of the bay enable timely operations, thus facilitating Namibia's largest commercial port, the Port of Walvis Bay, to accommodate approximately 1,600 vessel calls annually, with a handling capacity of 10 million tons of cargo.

## GEARED FOR GROWTH

Namport focuses on being the best performing seaports in Africa. Therefore, Namport continues to invest in port infrastructure to ensure Namibia is not only compliant with the International Ship and Port Facility Security code (ISPS), but is also geared towards opportunities for future growth.

In 2019, a new container terminal worth N\$4.2 billion was brought into operation. It provides infrastructure and deployment of ship-to-shore gantry cranes for the first time in Namibian port history, firmly establishing a competitive position in relation to other ports for the critical hinterland markets. This raises the handling capacity to 750 000 TEUs, which is double the previous 350 000 TEU's.

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**POWER BOOST:** NamPower MD Simson Haulofu and Deng Yan, the MD of China Jiangxi International, shake hands following the finalisation of an agreement for the construction of a 100MW solar park at Rosh Pinah. **Photo: Tabby Moyo**

# NamPower Picks Chinese Partnership to Build Country's Largest Solar Farm

**P**ower utility, NamPower, has finalised a deal with two Chinese companies for the construction of a 100 megawatt solar park in the south of the country.

The solar farm to be built at Rosh Pinah by the joint-venture of China Jiangxi International Economic and Technical Cooperation and Chint New Energy Development (Zhejiang), will be Namibia's largest solar power plant, adding to the country's existing 500 MW generation capacity.

The estimated total project cost amounts to over N\$1.6 billion (which includes the development costs), of which a concessional loan from KfW will cover almost 80% of the total costs, while NamPower is funding the remaining 20% from our balance sheet. The engineering, procurement and construction (EPC) contract signed between NamPower and the Chinese companies is worth over N\$1.4 billion.

NamPower Managing Director, Kahenge Simson Haulofu, said the new plant will help stabilise future electricity tariffs, spur economic growth, and enhance environmental sustainability. The Rosh Pinah 100MW PV plant is expected to come into commercial operation in the second quarter of 2026.

The solar farm will not only contribute positively to the country's economy but will also aid in addressing and supporting the renewable energy commitments prescribed in the Renewable Energy Policy, National Energy Policy and National Integrated Resource Plan for the electricity supply industry in Namibia. Most importantly, the PV plant will play a pivotal role in transitioning towards a low carbon and environmentally sustainable energy system.

"As we embark on this journey towards harnessing the power of the sun, we are not just expanding our infrastructure by building this plant but laying the foundation for an environmentally conscious future. The addition of this second

PV plant is a testament to our unwavering commitment to sustainability and our belief in the power of renewable energy to drive positive change," said Haulofu.

Haulofu said the 100MW PV plant will also solidify NamPower's intention of being a leader in the promotion of clean energy solutions and reducing our carbon footprint and carbon content of our electricity.

"The investment into the Rosh Pinah 100 MW PV Project will contribute to managing and regulating future increases in electricity tariffs. This will not only benefit individual consumers by lowering increases to their electricity bills but also contribute to the overall economic growth and environmental sustainability," the NamPower MD said.

The contractor is required to meet a minimum Local Content Spend Guarantee of 25% of the construction cost. This means that the contractor must subcontract set aside works, services and goods to local companies for a spend of a minimum of about N\$350 million.

"The project team will keep records of all these activities to ensure that these objectives and undertakings are met. The construction of the plant will create job opportunities for locals, as all semi-skilled and unskilled labour must be sourced locally in line with the conditions agreed in the EPC contract," Haulofu said.

Deng Yan, the Managing Director of China Jiangxi International, said his company has been active in Namibia for over 20 years, completing 61 projects across the country. Internationally, China Jiangxi has delivered over 600 engineering projects across more than 50 countries.

"Together, I am confident that our joint efforts will ensure the successful execution of this project, create more job opportunities, and make a significant contribution to Namibia's development," Yan said.



## REIAoN Participates in Global African Hydrogen Summit

The Renewable Energy Industry Association of Namibia (REIAoN) played a key role in the Global African Hydrogen Summit (GAH2S) summit held in Windhoek at the beginning of September, as one of the event's supporting partner associations.

REIAoN Chairperson Jan-Barend Scheepers delivered a presentation on Green Hydrogen Power to X and Derivatives during a Technical Seminar held at the #GAH2S



**HYDROGEN TALK:** JB Scheepers delivering his presentation on Hydrogen PtX and Derivatives



**KEY ROLE:** Board Members Set-son Shifidi, JB Scheepers, Paulus Mulunga and REIAoN General Manager Tabby Moyo at the #GAH2S

### REIAoN Hosts Estonian Cleantech Association



**NEW HORIZONS:** REIAoN GM and Board Members pictured with Daniel Schaar, Estonia's Ambassador at large for Africa, and David Akinin, Honorary Consul of Estonia in Namibia, during the business engagement.

REIAoN partnered with the Estonian Government to host a Namibia-Estonia Green Tech Talk in Windhoek on 20 September, targeting possible collaborations between Namibian and Estonian Renewable and Cleantech companies.

Namibia has taken the lead in the push for green hydrogen energy, developing efficient systems used to convert wind and solar energy to hydrogen. About 40 leaders in the renewable energy sector, academia, cleantech and government (NIPDB) attended the fruitful engagement.

The twin transition of green and digital solutions are being mainstreamed across the world. Namibia has taken the leadership in the push for green hydrogen energy. Developing efficient systems used to convert solar energy to hydrogen to create benefits from the 300 sunny days per year.

Estonia and Namibia already cooperate in the digital sphere with NAM-X, Namibia's data interoperability system using similar solutions and lessons learned from Estonia's X-Road.

The Namibia-Estonia Green Technology talk looked into possible areas of cooperation between the two countries. Estonia's story was told by Erki Ani, the Chairman of the Supervisory Board for the Estonian Cleantech Association. He shared Estonia's experiences in green tech, hydrogen and the cleantech startup ecosystem.



**GREEN COLLABORATION:** Deputy Minister of Mines and Energy, Kornelia Shilunga, and State Secretary of the Federal Ministry of Economic Cooperation and Development (BMZ), Jochen Flasbarth, officially launched the study and the blueprint, in the presence of the Deputy Executive Director of the Ministry of Industrialisation and Trade, Michael Humavindu, and Green Hydrogen Commissioner James Mnyupe.



## Localising Green Industries in Namibia

A study on “Localising Green Industries in Namibia” has been launched alongside the Green Industrialisation Blueprint.

The study’s outcomes and recommendations were discussed with key stakeholders from both government and private sector during the Global African Hydrogen Summit (GAH2S) held in Windhoek in September.

Deputy Minister of Mines and Energy, Kornelia Shilunga, and State Secretary of the Federal Ministry of Economic Cooperation and Development (BMZ), Jochen Flasbarth, officially launched the study and the blueprint, in the presence of the Deputy Executive Director of the Ministry of Industrialisation and Trade, Michael Humavindu, and Green Hydrogen Commissioner James Mnyupe.

The study, which was conducted in collaboration

with various government ministries and the GIZ Green Hydrogen Business Alliance Project, outlines actionable steps for green industrialisation in Namibia, focusing on key industries such as iron, lithium, and rare earth elements.

The study’s recommendations emphasise leveraging Namibia’s mining sector and creating a supportive legislative framework to unlock green industry potential.

Shilunga highlighted the importance of building on the mining industry to produce globally demanded green materials, while Mnyupe noted opportunities for local lithium processing and green iron production.

The study and Blueprint’s findings are expected to guide future green hydrogen projects and shape Namibia’s green industrialisation strategy.

# Namibia, U.S. Agree to Collaborate on Clean Energy

The governments of Namibia and the United States have signed a Memorandum of Understanding (MoU) fostering collaboration in the Renewable Energy (Clean Energy) sector.

The MoU, signed by Mines and Energy Minister Tom Alweendo and U.S. Ambassador to Namibia, Randy Berry, is aimed at extending the impact of renewable energy sector programmes between Namibia and the United States, and increasing efficiency, to achieve better measurable developmental outcomes.

The United States Agency for International Development (USAID)'s Power Africa Initiative will be responsible for the implementation of the MoU over a five-year period.

Alweendo said the agreement serves as a vital framework for collaboration and is an essential part of the country's broader national ambitions.

"Through this partnership with the United States, we will explore innovative technologies and enhance our capacity in key areas such as solar and wind energy" he said.

Alweendo also acknowledged the importance of regional collaboration in achieving shared renewable energy goals, such as working with neighbouring countries, which will enhance Namibia's collective energy stability and foster economic growth throughout the Southern African region.

The Namibian government is actively pursuing regulatory reforms that promote transparency and attract institutional investors, and is committed to making the country an attractive investment destination for renewable energy and reducing or eliminating barriers to investment.

The country is also striving to attain its Vision 2030 goals by expanding renewable energy generation capacity and bridging the gap between domestic power generation and total consumption of renewable energy.

Ambassador Berry said the agreement underscores the shared



**SUSTAINABLE COLLABORATION:** U.S. Ambassador Randy Berry and Mines and Energy Minister Tom Alweendo shake hands after formalising the MoU.



**SHARED COMMITMENT:** From left to right; U.S. Deputy Assistant Secretary Kimberly Harrington, U.S. Ambassador Randy Berry, Mines and Energy Minister Tom Alweendo and his deputy Kornelia Shilunga. Photos: U.S. Embassy

commitment towards Namibia's sustainable economic growth and industrialisation.

"This MoU marks a significant milestone in our ongoing efforts to strengthen our bilateral relationship and enhance cooperation in the energy sector. Energy is a critical component of sustainable development and economic growth. Under this agreement, we will share expertise and resources to promote Namibia's energy security, expand and diversify energy sources, and support Namibia's vision of becoming a net exporter of renewable energy and a regional leader in clean energy solutions," said Berry.

The Ambassador said he was confident that the collaboration will yield significant benefits for both countries and contribute to a brighter, more sustainable future for all.

U.S. Deputy Assistant Secretary Kimberly Harrington said the finalisation of the MoU took time, reflecting the vast number of players from the U.S. government who are eager to partner with Namibia.

Mines and Energy Deputy Minister Kornelia Shilunga said the MoU marked the beginning of an important partnership that reflects a shared commitment to a sustainable and greener future.

"Namibia is blessed with abundant renewable resources, particularly in solar and wind. This MoU symbolises our joint efforts to harness these resources, reduce our

dependence on imported power, and contribute to regional energy security. It also underscores the importance of collaboration, not only between our two nations but across the Southern African region, to ensure a prosperous, energy-secure future," said Shilunga.

She emphasised that renewable energy development was about creating opportunities for all Namibians, and that by collaborating with the U.S. government Namibia would generate growth, ensure access to reliable energy, and safeguard the environment for future generations.

## Solar Installation Training

Practical + Theory. Based on South Africa's PV GreenCard programme.



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## Musheko Heads Namibia Green Hydrogen Programme Communications

The Namibia Green Hydrogen Programme (NGH2P) has appointed Jona Musheko as its new Manager for External Affairs and Communications, effective 03 October.

This appointment is a key part of the programme's strategy to strengthen its communications efforts as it leads Namibia's push to become a global green hydrogen hub.

Vibrant Musheko brings with him nearly a decade of professional experience, having demonstrated exceptional communication

skills during his tenure at the Ministry of Agriculture, Water, and Land Reform. His distinguished track record includes being named the 2nd Best Public Relations Officer in government – a reflection of his ability to manage public engagement effectively and forge strategic relationships.

Musheko holds an Honours Degree in Linguistics Studies: in English, and an Honours Degree in Communication. He is also currently completing a Master's Degree in Marketing at the Namibia University of Science and Technology



**Jona Musheko**

(NUST).

As Manager for External Affairs and Communications, Musheko will implement the NGHP's Stakeholder and Communications Strategy.

His role will involve strengthening the programme's visibility and acting as the primary liaison between the NGH2P and its local and global stakeholders.

## Angola Showcases Largest 188.8 MW Solar PV Plant

In a display of its renewable energy capabilities, Angola recently invited delegates from Southern African Development Community (SADC) member nations to visit its largest solar photovoltaic (PV) plant located in Biópio, Catumbela municipality.

The visit was part of the 42nd Joint Meeting of the Committee of Ministers Responsible for the SADC Energy and Water Sector, held to foster regional cooperation and showcase Angola's strides in sustainable energy development.

The Biópio solar PV plant boasts an impressive capacity of 188.8 megawatts (MW) and is equipped with 500 000 solar panels. Built at a cost of US\$300 million (about N\$5.3 billion), it stands as a testament to Angola's



commitment to enhancing its energy infrastructure and reducing reliance on conventional energy sources.

During the visit, delegates had the opportunity to tour the expansive plant and witness its operational capabilities firsthand. They were briefed on the plant's control and supervision systems, highlighting its advanced technology and efficient energy production processes.

The visiting delegations from Namibia, Eswatini, Zambia, Zimbabwe, Malawi, and the Democratic Republic of Congo, along with senior officials from the SADC Secretariat in Botswana,

expressed satisfaction with the PV plant's infrastructure and operational efficiency. The exchange of insights and experiences during the visit furthered the collaborative efforts among SADC countries in advancing sustainable energy solutions and addressing regional energy challenges.

As the region continues to prioritise sustainable development and energy security, Angola's solar PV plant stands as a beacon of progress and innovation, demonstrating the transformative impact of renewable energy investments in powering a sustainable future for all. –

**Solarquarter**

# Windhoek Determined to Cut Carbon Emissions

The City of Windhoek is taking the lead in raising public awareness about reducing carbon emissions by promoting alternative, environmentally-friendly transportation options.

The city organised a Zero Emissions Week campaign, also known as ZeDay, from 16-21 September, aimed at promoting environmental consciousness and reducing greenhouse gas emissions. The initiative sought to encourage individuals, businesses, and government agencies to take a proactive role in combating climate change by minimising their carbon footprints and embracing sustainable practices.

This year, activities included an Electric Transport Exhibition, Cycle to Work and Car Free days.

During the electricity transport exhibition various suppliers of electric vehicles, including M&Z Mercedes, Electric Vehicles Namibia (E-Car Namibia), E-Car and E-bikes, showcased their products. The event highlighted the advantages of electric vehicles over conventional internal combustion engine vehicles.

There are currently just over a 100 electric vehicles (EVs) in Namibia, with government having set a goal to have 10 000 EVs on the country's roads by 2030.

There has been growing interest in both the public and private sectors in using electric vehicles, with the United Nations in Windhoek and the University of Namibia being some of the pioneers.

The Mayor of Windhoek, Queen Omagano Kamati, said the exhibition was part of the municipality's efforts to enhance the public transportation system and adopt innovations in addressing climate change.

Windhoek, a prominent urban centre in Namibia, is particularly susceptible to the impacts of climate change. The city's reliance on open dams and rainfall for its water supply makes it vulnerable to the projected drier future, exacerbated by increased evaporation and altered rainfall patterns.

Mayor Kamati said Namibia's electric vehicle market is growing exponentially fuelled by customer interest and public-private cooperation.

"It is driven mainly by Namibia's commitment to enhancing its net sink capacity of emission by 13% by 2030 as



**ELECTRIC MOBILITY ...** A variety of electric vehicles and E-bikes were on display during the City of Windhoek's Zero Emission Day held in the capital recently. **Photos: Tabby Moyo**

set in the country's second Nationally Determined Contributions (NDCs)," said the Mayor.

NDCs are at the heart of the 2015 Paris Agreement on Climate Change and are non-binding climate-related national plans highlighting climate change mitigations measures, including targets for greenhouse emission reductions.

Namibia's NDCs aim to reduce its greenhouse gas emission by 91% by 2030.

The Director for Transportation Policy and Regulations in the Ministry of Works and Transport, Cedric Limbo, said in addition to the ministry's Transport Policy of 2018, efforts were also being made to shift perceptions and promote the use of clean technology.

"As we move to diversify the economy beyond its traditional reliance on fossil fuel, it is important to align policies and explore more innovative approaches to ensure our transport system is on par with global efforts to promote environmental sustainability," said Limbo.



# NUST and European Union Unveil Mural Celebrating Green Energy Transition

The Namibia University of Science and Technology (NUST), in collaboration with the European Union (EU), has unveiled a mural at the University's Windhoek Campus, showcasing sustainability in green industrialisation and energy transition.

NUST and the EU share a vision for a greener, more sustainable future for Namibia.

NUST Acting Vice-Chancellor, Miriam Dikuua, said the artwork has "brought life to the face of NUST's main campus", adding that Namibia continues to pursue its energy transition goals and that the mural serves as a creative expression of the hopes and ambitions that drive these efforts.

Dikuua said NUST remains welcoming to fostering an ecosystem where science, technology, and innovation thrive.

EU Ambassador to Namibia, Ana-Beatriz Martins, said the mural was "more than just a piece of art." She said it stands as a powerful symbol of the collective commitment between Namibia and the EU to a sustainable energy transition, green industrialisation, and job creation for Namibian youth.



As you pass this mural, we hope it will inspire you to believe that together we can achieve the goals Namibia has set for itself. - Ana-Beatriz Martins.

"As you pass this mural, we hope it will inspire you to believe that together we can achieve the goals Namibia has set for itself," she remarked.-

## A Work of Art with a Mission

The mural, titled *Shared Values for Green Transition*, was the result of a creative collaboration between local artists and the EU. It captures three key pillars of Namibia's green future: skills development, employment creation, and a shared vision for a sustainable tomorrow. It is designed to underscore the critical need for skills development and employment creation while reflecting a unified commitment to Namibia's green future.

# TerraWatt Eyes 50MW Solar Farm in Namibia

Netherlands-based TerraWatt BV has announced the launch of its latest project, a groundbreaking 50 MW solar energy farm located in Namibia.

This state-of-the-art facility is set to become one of the largest solar farms in the region, generating clean and sustainable energy to power thousands of homes and businesses.

However, the company did not divulge the location of its mega solar project which commenced on the first of June 2023.

TerraWatt BV said the project represents a significant milestone in its mission to combat climate change and promote renewable energy solutions.

"By harnessing the power of the sun, we aim to reduce carbon emissions and contribute to a greener, more sustainable future," the company said.

The solar energy farm in Namibia will comprise of advanced solar panels, meticulously designed to maximize energy production and efficiency. The strategic location



of the farm in Namibia, with its abundant sunlight and optimal weather conditions, ensures that it will operate at peak performance, producing clean energy year-round.

In addition to its environmental benefits, the project will also have a positive impact on the local economy. Through job creation and community engagement initiatives, TerraWatt BV is committed to empowering the people of Namibia and promoting social development in the region.

With this ambitious project, TerraWatt BV reaffirms its commitment to renewable energy and sustainable practices.

"We believe that by investing in clean energy solutions, we can create a brighter future for generations to come. Stay tuned for more updates as we progress towards the completion of this remarkable solar energy farm in Namibia," the company announced.

## Defunct Walvis Bay Wind Turbine to be Revived

Namibia's pioneering renewable energy initiative near Walvis Bay - a wind turbine at Mile 7 - may soon bounce back to life nearly 20 years since it was first erected.

The turbine, which was once a symbol of Namibia's efforts to harness wind, has stood idle for years due to lack of maintenance and theft of its critical components.

Erongo RED, which erected the turbine in 2005, now wants to bring it back to life through a public-private partnership (PPP).

Erongo RED Chief Executive Officer Tino !Hanabeb said interest from private investors had reignited hopes for the turbine's restoration.

"We want to revive it. We went to the board in May for what we call 'gate one' approval so that we can restart the project, probably through a PPP. This would allow parties with the financial

means to develop it," said !Hanabeb.

The Mile 7 turbine had served as a key learning tool for wind energy in Namibia, before it fell victim to theft. In 2006, just a year after it began operations, the turbine's motherboard was stolen, leaving the project at a standstill.

!Hanabeb said although the turbine's main infrastructure was still intact, new technology would need to be installed to revive it.

The turbine, a refurbished 220-kilowatt Wind World W-2500 from Denmark, was installed with Danish funding to the tune of N\$2.2 million. It was intended as a pilot project to assess the feasibility of large-scale wind energy production in Namibia. Positioned 11 kilometers east of Walvis Bay, it provided a learning environment for local engineers while contributing power to the town's Mile 7 water reservoir and pump stations.



**REVIVAL:** The Mile 7 wind turbine near Walvis Bay is set to be revived soon.



**ERONGO VISIT:** EU Energy Commissioner Kadri Simson and her delegation visiting Hylron's Oshivela Project outside Arandis.

## South Africa Imposes 10% Import Duty on Solar Panels to Boost Local Manufacturing

In a move likely to affect the price of solar panels entering the Namibian market, South Africa recently imposed a 10% import duty on solar photovoltaic (PV) panels, cells, and modules, in an effort aimed at fostering local solar panel manufacturing.

The measure, signed by Finance Minister Enoch Godongwana, took immediate effect.

The solar PV import tax is a component of the broader South African Renewable Energy Masterplan (SAREM), which aims to create 25,000 jobs by 2030.

However, the import duty on solar modules poses challenges for developers, because while larger projects may absorb the additional costs, smaller projects, with tighter profit margins, could face reduced profitability, delays or even become financially unviable.

These challenges exist amid an environment of struggles with local sourcing and meeting bankability standards, according to Jose Minguillón Forteza, managing director for Africa at Spanish-headquartered solar developer Grupo Cobra.

SAREM seeks to leverage the increasing demand for renewable energy to boost industrial development and job creation. Although the government has been identifying the green economy as a high-growth sector for over a decade, previous industrial policies have been inconsistent and inadequate, according to News24.

There is a strong emphasis on promoting inclusivity, black economic empowerment, and a just transition to a

low-carbon economy in the SAREM, as well as the need for a supportive trade policy. According to the plan, South African industry must act quickly to harness the massive growth in renewable energy demand.

However, attempts to leverage the green economy without a comprehensive plan have been unsuccessful. Earlier efforts to develop a manufacturing industry around wind and solar components were hampered by stop-start momentum in government procurement, says News24.

To address these challenges, the Department of Trade, Industry, and Competition attempted to legislate local procurement quotas but ended up granting exemptions owing to the poor availability of locally made components.

SAREM proposes policy measures to support local industry, such as incentives, localisation targets, and trade policy interventions. It also sets targets for industrial growth and job creation.

According to the International Energy Agency (IEA), China controls over 80% of the global manufacturing stages of solar panels. This dominance in the solar panel manufacturing industry has allowed China to significantly drive down the cost of solar energy globally.

As a result, countries like South Africa have been able to adopt solar energy on a larger scale, making it a more affordable and accessible renewable energy option. This has helped facilitate the rapid growth of residential and commercial solar installations in South Africa, alleviating grid demand and contributing to relief from rolling

blackouts.

However, the benefits of manufacturing jobs and investments from this solar boom have largely bypassed South Africa.

ARTsolar, based in KwaZulu-Natal, is one of the very few local manufacturers of solar PV panels. The company represents a small fraction of the local capacity in a market that imported solar panels worth N\$17.5 billion in 2023, according to Gaylor Montmasson-Clair, a facilitator of SAREM and a senior economist at the independent think tank Trade and Industrial Policy Strategies.

Montmasson-Clair stated that the introduction of the import tariff was long overdue. "There are two different ways of doing things. We can drive renewable energy and do so by driving imports, or we can drive renewable energy by trying to provide for local demand with manufacturing," Montmasson-Clair said.

He added that, while the tariff alone could not significantly boost local manufacturing, it was a step in the right direction.

"There are always going to be imports, but we could aim to maximise what we can manufacture locally, and the tariff, while not a silver bullet, is in that direction," he said.

SAREM outlines 49 potential market interventions to enhance local manufacturing for solar, wind, lithium-ion batteries, and vanadium battery storage technologies. Montmasson-Clair noted that importers could apply for a rebate on the import tax. The South African Revenue Service (SARS) may grant a rebate if the panels cannot be sourced from within the Southern African Customs Union.

Some industry players, however, remain skeptical. Matthew Cruise, head of business development at Forest Energy, a solar energy installation and financing company, argued that the import tax was unlikely to drive local manufacturing capacity for solar PV. He suggested the duty could be a government strategy to capitalise on the rapid growth of solar energy rather than a genuine attempt to boost local manufacturing.

Cruise highlighted the significant energy required to produce silicon



There are always going to be imports, but we could aim to maximise what we can manufacture locally, and the tariff, while not a silver bullet, is in that direction. -Montmasson-Clair

wafers for PV cells, noting that China's dominance in this area is because of its relatively cheap electricity and substantial investment in manufacturing capacity. He explained that South Africa's higher electricity costs and ongoing supply challenges made it difficult for locally manufactured panels to compete with Chinese imports on price. "It's disappointing to see because we don't see much benefit for the industry as a result of having more tax," he said.

According to Julia Tatham, a junior research officer at the Energy Systems Research Group at the University of Cape Town, the increased cost from the import duty will only slightly impact the overall cost of solar installations.

"A 10% increase in the price of imported panels will not translate into a 10% increase in the total cost of installation as the panels only make up a portion of the total cost," Tatham was quoted by News24 as saying.

She supported the introduction of the tariff as a strategic move to boost local manufacturing but remained skeptical that it would result in competitive prices for locally produced solar PV panels.



**ERONGO VISIT:** EU Energy Commissioner Kadri Simson and her delegation visiting Hylron's Oshivela Project outside Arandis.

# EU Energy Boss on Familiarisation Visit to Erongo Hydrogen Projects

European Union (EU) Energy Commissioner Kadri Simson, who was in Namibia to attend the Global African Hydrogen Summit (GAH2S), took time to get a first-hand account of the hydrogen projects in the Erongo Region.

Accompanied by Namibia's Green Hydrogen Commissioner James Mnyupe, Simson visited Cleanergy Solutions near Walvis Bay, Hylron near Arandis, HDF Energy near Swakopmund, and the Namibia Ports Authority (Namport). These entities are pioneering Namibia's green hydrogen ambitions, with the aim to be a leading producer and exporter of clean energy to Europe and other global markets.

This visit came soon after the European partners signed funding initiatives amounting to more than N\$700 million earmarked for the development of Namibia's entire hydrogen value chain. This includes the production and transport of hydrogen, as well as the integration of local industries, job creation, and sustainability.

The delegation also visited Cleanergy Solutions Namibia's green hydrogen production hub near Dune 7. This facility includes a refuelling station and a training centre.

"The centre will ensure Namibia builds a skilled workforce to support this new industry," said Mnyupe, adding that the centre is expected to serve as a key element in building local expertise and ensuring that the benefits of green hydrogen extend throughout the Namibian economy.

HDF Energy's Renewable Swakopmund (RSWK) project, demonstrated the integration of hydrogen production, storage, and distribution. With a N\$4.5 billion investment, this project aims to provide consistent, clean



**GREEN IRON:** EU Energy Commissioner Kadri Simson receiving the first green iron produced at the Hylron site.

energy for Namibia. Off-take agreements with NamPower are underway.

At Namport preparations are under way for construction of a bulk ammonia terminal set to begin in early 2025.

Namport executive engineer Elzevir Gelderbloem said the authority has been in discussions with European port authorities, including the Port of Rotterdam, to form green corridors to Europe.

# Zhero Unveils Walvis Bay Project to Produce Green Ammonia

**Z**hero, a global developer of large-scale clean energy projects, has partnered with Envision Energy in a Namibian project earmarked to produce 500,000 tonnes of green ammonia annually from 2029.

The project, located some 70 kilometres outside Walvis Bay, gives further impetus to Namibia's goal to become a global leader in green energy.

Zhero Chief Executive Officer and Co-Founder, Alessandra Pasini, said during the recently-concluded Global African Hydrogen Summit (GAH2S) held in Windhoek that the company had secured private farmland and signed lease agreements for an industrial park and storage facilities near the Port of Walvis Bay.

Pasini said Zhero was committed to developing the project in collaboration with the Namibian government, local stakeholders, and the people of Namibia, citing the country's vision, leadership, and natural resources as key reasons for their choice.

"We are targeting a final investment decision by 2026, which is a very fast-track timeline," Pasini said.

She said the Namibian project aligns with Zhero's broader mission to produce green molecules, noting that the company's founders bring deep experience in renewable infrastructure projects.

"Our ambition is to bring the second gigascale green hydrogen project online, following the NEOM project, with which we are closely familiar due to the founders' involvement," Pasini said

"We have worked hard to find the right local partner and advance the development



**GREEN AMMONIA:** Zhero CEO and Co-Founder, Alessandra Pasini during the recently-concluded Global African Hydrogen Summit (GAH2S) held in Windhoek.



Our ambition is to bring the second gigascale green hydrogen project online, following the NEOM project, with which we are closely familiar due to the founders' involvement.

- Alessandra Pasini

of this project. Today, I'm excited to announce our partnership with Envision. This partnership will enable us to accelerate project development while ensuring we remain competitive," the Zhero boss added.

Frank Yu, Vice President of Envision Energy, said his company was honoured to join Zhero as co-developers of the gigawatt-scale Zero Molecular Walvis Bay Project.

Yu said Envision Energy was committed to localising its advanced green hydrogen technologies in Namibia and training local talent to operate this project safely and efficiently.

"We are currently building the world's largest green ammonia and green hydrogen project in Inner Mongolia. Now, we will collaborate with Zhero to replicate this large-scale project here in Namibia," Yu added.

## OPINION

# Sustainable Energy and Economic Development Through Harnessing Local Potential

NAFTAL AKWEENDA

Namibia has been bestowed with some of the most majestic, rugged landscapes, fierce wildlife, and an abundance of natural resources. While many of these natural resources are already a mainstay of our economy, recent years have seen the focus shift to the potential of energy resources.

With potentially huge oil and gas reserves and the possibility of harnessing solar and wind energy, Namibia is well-positioned to become a leader in the development of green hydrogen projects. By leveraging our diverse energy mix, we have the unique opportunity to address energy security, enable socio-economic growth, all while promoting energy sustainability.

Discussions at recent summits and conferences have underscored the importance of harnessing energy resources. Energy is a fundamental driver for economic development, and at the most basic level, it promotes growth by bolstering industrial productivity and creating employment.

How do we ensure that local companies, entrepreneurs, communities, and the regions of Namibia benefit from Namibia's resource blessing?

It is of utmost importance that we focus on infrastructure development in the broadest sense. While these endeavors can be costly, they represent essential long-term investments that will benefit Namibia. To support the advancement in the energy sector, developing key energy infrastructure such as expanding the national grid, upgrading transmission networks and transport links is vital.

These investments are just the beginning, as the development of solar and wind farms, as well as pipelines, storage facilities, and export infrastructure to support oil and gas, are equally as important. Key to supporting the above infrastructure development is through providing access to finance and capital.

The development of energy infrastructure will also serve as a catalyst for the growth of peripheral industries, supplying everything from workwear, safety boots, catering, tools, and ICT equipment, to name a few. Local companies can provide skilled workers, engineers, and experts ensuring that newly established and small and large companies can embrace the opportunity of growth that the energy sector presents, both directly and within the supporting value chains. This can generate improved turnover, create employment, and drive long-term growth.

The future is bright, and a whole cohort of Namibians are excited to contribute in one way or another and forge



a path for themselves and their communities. However, one of the major challenges that business owners, entrepreneurs, and self-starters continue to face is the need for more access to finance.

FNB has an intimate understanding of the local investment climate and understand the potential of our entrepreneurs and companies. We are optimistic about the future, recognising that access to finance and nurturing established or new companies is not just sensible from an economic point of view but also for Namibia's long-term socio-economic growth.

The potential for job creation in the energy sector is vast, and we are excited about the opportunities it will bring.

Access to affordable and sustainable energy is essential for countries to transition from an agriculture-based economy into a more industrialised one. Affordable and reliable energy allows industries to operate efficiently with lower input costs, which ultimately boosts productivity.

For a developing country like Namibia, our abundant natural resources are crucial in driving industrial growth. What this could further mean for Namibia, where mining activities contribute significantly to GDP, is the increase in productivity due to more affordable and sustainable energy.

*Naftal Akweenda is the Relationship Manager at FNB Commercial: Enterprise Banking*

**Who:**

- Installers
- Suppliers
- Consultants
- Contractors
- IPPs
- Financiers
- Trainers
- Students

**What:**

- Solar PV
- Wind
- Biomass
- Electric Mobility
- Green Hydrogen



**Mission:** To provide a forum for Namibian businesses in the Renewable Energy and Energy Efficiency sector to set technical and ethical standards and to be a voice of the Renewable Energy private sector at large.

**Vision:** To assist Namibia in becoming an Energy sufficient hub, with an adequate supply of green energy from trustworthy and reliable organizations.



## WE PROVIDE FINANCE FOR CLIMATE ADAPTATION

The Development Bank of Namibia views climate change and adaptation as a pressing national issue. Although it poses challenges, it also offers opportunities for mitigation and development of climate-adaptive initiatives and enterprises for the future.

Among others, the Bank can provide finance for:

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  - purification
  - extraction
  - storage (dams)
  - distribution
  - water efficient enterprise technology
- Renewable energy
  - solar
  - wind
- Energy efficiency
  - distribution technology
  - energy efficient enterprise

- Buildings
  - heat dissipating buildings & housing projects
  - energy efficient buildings & housing projects
- Transport & logistics
  - fuel efficiency
  - freight consolidation
  - mass public transportation
- Agriculture
  - agri-enterprise water distribution
  - agri-enterprise water efficiency
  - climate change adaptive controlled environment facilities
- Replacement and / or rehabilitation of damaged or stranded assets
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- Climate-adaptive service-providing enterprises

If you have a project that mitigates climate change or helps Namibia to adapt, we are waiting to hear from you.



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