



**INTERVIEW**

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chief**



**RYAN COLLYER**

CEO OF ROSATOM CENTRAL AND SOUTH AFRICA

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**RWANDA:**

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**DR CONGO:**

Chemaf leaves door open for a takeover



# EXECUTIVE SUMMARY

Dear reader,

**W**elcome to our October wrapper. As always, we have a rich product lined up for you. Let's get on with it right away.

In Uganda, the oil refinery project has taken a different turn after two different private-sector led attempts fell through, with government now deciding to take the lead in sourcing for finance and contractors. Find out what government's plans are, and what challenges it faces ahead.

In the electricity sector, we take a look at the 10 years since China started investing in Uganda's large energy generation plants. And we try to answer one simple question: has it been worth it?

There are some developments in the mining sector, especially on the progress around the Kilembe copper mines as government moves ahead with finding a new developer of the project.

Our Boardroom Talk section has a big interview with Ryan Colyer, the Chief Executive Officer of Rosatom Central and Southern Africa, who sat down with us for an exclusive interview in Cape Town.

Ryan gives us an overview of why Rosatom, despite all the challenges Russia is facing, is still the best choice for African countries looking to build nuclear energy solutions.

Our Kenyan section has some interesting news on developing hydrogen as a source of energy. Already known for its huge geothermal reserves, Kenya has set out a plan on how it wants to add hydrogen as a source of energy. We bring you this story, and much more.

Base Resources Limited, the Australian company that has been an active player, is preparing to shut down its plant. Find out why.

There are also interesting stories to read from our Tanzania section. The country is preparing to auction a number of oil blocks. We delve into this process

and tell you when it will happen.

Helium is one of the sources of energy that is not talked about frequently. But if the recent results of the discoveries made in Tanzania are anything to go, then something big is about to happen. Be ahead of the story and read what we have for you on Tanzania's helium prospects.

One has to admire Rwanda's clean energy ambition. The country has a clear plan on where it wants to go in decarbonising its economy. In this wrapper, we tell you what Rwanda is up to and what opportunities the private sector can tap into as they take part in this journey.

Rio Tinto has finally agreed to enter Rwanda's mining industry. Find out which company has attracted this global mining giant into its Rwanda project, and what the partnership will lead to.

The Democratic Republic of Congo never ceases to fascinate us. We are proud to be one of the few English publications in the region that has dedicated time to follow events in the DRC. In this edition, we tell you the latest on Chemraf, the Middle East based company that has been at the centre of speculation over its purported intention to sell its copper and cobalt asset.

And to wrap it all up, we bring you a calendar of some of the oil and gas, mining, and energy events that will be happening around Africa over the next few months.

## 10 YEARS

*In the electricity sector, we take a look at the 10 years since China started investing in Uganda's large energy generation plants. And we try to answer one simple question: has it been worth it?*

# Govt changes strategy to salvage oil refinery dream

Uganda's government has started the process of salvaging its oil refinery dream after it ran out of patience with delays by a consortium of international companies to make a final investment decision for the project.

In cutting the Albertine Graben Energy Consortium (AGEC) loose, Uganda's government has decided to become the main developer of its proposed oil refinery – a fundamental shift from the faith it had in private companies. Nonetheless, the government is inviting private companies to participate in raising capital for the project, which is estimated at about \$4 billion.

Time is of the essence. Uganda faces the disturbing prospect of witnessing all its crude oil shipped out through an export pipeline to the Tanzanian port of Tanga if it delays to find the money – and contractor - to build the oil refinery.

Uganda insists on building an oil refinery with a capacity to produce 60,000 barrels of oil per day at peak – a project government says will create spin-off industries and create employment opportunities for its burgeoning youths.

Under the law and the agreements Uganda's government signed with TotalEnergies and Cnooc - the operators of the Tilenga development area

and the Kingfisher development area

- the refinery has the first right of call on the oil resources.

However, that right is dependent on the country having an oil refinery. Short of that, TotalEnergies and Cnooc have the right to



**President Museveni**

export all the oil through their proposed oil pipeline.

Uganda is scheduled to start exporting oil by April 2025, although that timeline is quite ambitious, while government expects to have an oil refinery in the year 2028.

Just over one billion barrels of the discovered oil have been determined to be commercial. The oil companies, through the East African Crude Oil Pipeline Company Limited, will export 212,000 barrels of that oil at peak from Hoima to the Tanzanian port of Tanga.

This financial year, Uganda's government is likely to start early oil refinery project works, such as site clearing, at Kabaale in Buliisa

district, and acquire more land as a parallel lobby for a private partner goes ahead.

Uganda has been courting Algeria, which has a public-financed oil refinery of its own, as a partner for its refinery project. A newspaper advert for a call of expression of interest for the construction and management of the Buloba finished products depot – which forms part of the oil refinery project - was recalled after President Yoweri Museveni and his team visited Algeria in March 2023.

Already, Algeria and Uganda are discussing over executing the refinery together.

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## 60,000 BARRELS

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# Govt changes strategy to salvage oil refinery dream

## FROM PREVIOUS PAGE

The government now feels that a public-led strategy is the best solution to dealing with the bottlenecks of tedious negotiations with the oil upstream companies, amidst a tight global credit market that has come under heavy pressure from environmentalists over such projects, according to an internal government memo that we have.

“...any private sector financiers/investors with interest in oil and gas projects like the refinery in Uganda are likely to require elaborate and time-consuming negotiation processes for various incentives, investment protections, project guarantees, commercial agreements and other government concessions in order to participate in the project – which will further delay the commissioning of the refinery project,” the memo notes.

The memo then adds: “...it is proposed that, today, a public sector-led strategy is the most feasible path forward to developing the 60,000 barrel a day refinery in Uganda.”

A government-steered refinery project, the memo estimates, will save Uganda \$868 million in perceived country risks that AGEC had built into its overall expenditure cost. This is expected to knock down the turnkey project cost of the refinery.

In deciding to take on the burden of financing and developing the oil

refinery, Uganda’s government is in a race against time. It is clear that the collapse of the first private sector-led attempt by Russia’s RT Global in 2015, and now the most recent setback, has cost Uganda precious time, considering the progress being achieved by the crude oil export pipeline project.

France’s TotalEnergies and China’s Cnooc have made it clear that exporting Uganda’s crude remains the best option to attract investments that can be channeled into developing the country. On the other hand, Uganda’s government feels that some of the oil must be refined in-country.

To realise its refinery dream, Uganda’s government needs to incorporate a refinery company, and negotiate with the upstream international companies for a crude oil supply agreement, among other things.

But in the immediate term, Uganda’s government needs some of the studies that the Albertine Graben Energy Consortium (AGEC) had done.

Among the studies that AGEC did include the Front-End Engineering Design, the Final Refinery Configuration report, among others. While the Environmental and Social Impact Assessment was done, AGEC did not submit it to government for approval.

To access these reports from AGEC, government will have to make a financial offer, we have been told. It’s not

clear how much.

Other studies that government will have to do include a report on the lumpsum turnkey price for the project, a security and risk analysis report, an Operations and Maintenance Plan, a National Content Development Plan, and a financing plan, just to mention a few.

While the studies might take time to be completed, there are certain components that are of immediate concern. Government needs to incorporate a refinery company, which, ideally, should negotiate with the oil companies on certain aspects.

A shareholders agreement must be negotiated to clearly stipulate the terms and conditions of the owners of the refinery company.

The refinery company, of which the Uganda National Oil Company, and a private investor will be the main shareholders, is supposed to negotiate with the oil companies for the crude oil supply agreement, one of the most important agreements needed to be signed. For now, Uganda’s ministry of Energy and Mineral Development is negotiating with the oil companies.

The crude oil supply agreement is meant to guide the different parties on how much oil being drilled at the Tilenga and Kingfisher fields is channeled to the refinery.

The refinery company is also supposed to negotiate the Implementation Agreement, which anchors all the other agreements of the refinery.

The timelines for the conclusion of these agreements is still not clear. In whatever way, every minute now counts if Uganda is to build the refinery.



# PAU writes to TotalEnergies over local contractors' plight

The Petroleum Authority of Uganda has asked TotalEnergies to find a swift resolution to complaints arising out of delayed payments for goods and services offered at the Industrial park in Buliisa district.

Describing the issue as contractual irregularities, the Petroleum Authority, in a letter to TotalEnergies, has tasked the French oil major's tier one contractors - McDermott International Ltd and Sinopec International Petroleum Service Corporation - to sit down with the aggrieved parties to resolve issues that have been ongoing for nearly a year.

To follow up, the Petroleum Authority has asked TotalEnergies to avail it with the list of all the unpaid invoices from the local companies.

## THE TIER-1 CONTRACTORS

Also, the Petroleum Authority asked the tier-1 contractors to commit on when they intend to clear the invoices.

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The tier-1 contractors say that the paperwork the service providers file to process the payment does not add up, and that con-

tributes to the delay in payment. Some of the service providers disagree.

The Petroleum Authority has asked TotalEnergies to direct its contractors to take service providers on the uniform system of documents they consider before making payments.

Delayed payments hurt the profit margins of local service providers, who have to endure pricy commercial bank loans to execute their work.

Some service providers say that the situation has not changed much even with the intervention of the Petroleum Authority. They say PAU, in conjunction with other lobby groups, has to do more.

## Karuhanga, Pettersson to source capital for Bro Group Ltd

Hannington Karuhanga, the new chairman of Bro Group Limited, will tap into his vast wealth of experience and dip into his large pool of networks to steer the company to greater heights in Uganda's competitive oil and gas industry.

One of the first assignments is for Karuhanga to take Bro Group back to attracting the kind of contracts that saw the company flourish during Uganda's busy oil exploration expedition around 2012.

Around that time, Bro Group, through its main subsidiary – Threeways Shipping Services Limited, recorded a turnover of \$40 million.

After that exploration period, the company's fortunes took a nosedive as invest-

ments in Uganda's oil industry dropped to a trickle. Threeways Shipping Services Limited faced financial troubles, and around 2016, with debts piling up, the company was placed under receivership, which lasted for two years.

A man who has chaired the boards of blue-chip companies such as Stanbic bank, Hima Cement Limited, Airtel Uganda, just to mention a few, Karuhanga is

known as a man who can unlock most doors in Uganda's corporate and public circles.

Karuhanga will be supported by Daniel Pettersson, the former chief executive officer of Hima Cement, who joined Bro Group in January 2023 as a co-managing director. Both Karuhanga and Pettersson were at Hima at the same time.

Seen as a shrewd businessman, Pettersson is "playing a crucial role in capital-raising and strategic planning" for Bro Group.

Bro Group has won a number of contracts in Uganda's oil industry. The company has contracts of transporting equipment and personnel for Cnooc Uganda and TotalEnergies. On some of these contracts, Bro Group has entered into joint ventures with Deugro Group of Switzerland, and Grindrod Freight from South Africa.

**Hannington Karuhanga**



# South Africa's COEGA to open up Kabalega park

Uganda has chosen COEGA Development Corporation, South Africa's leading Special Economic Zone operator, as its preferred partner for the opening up of the Kabalega Industrial Park, which forms part of the oil refinery project.

The selection of COEGA is the strongest indication that government is committed to moving ahead with its oil refinery project since it cut ties with the Albertine Graben Energy Consortium at the end of June 2023. The South African company will partner with the Uganda National Oil Company, which handles Uganda's commercial interest in the oil and gas industry.

The team from COEGA has already been to the Kabalega Industrial Park, and is said to map out a plan on how to prepare the park for the different investments. The park is a nearly nine square kilometre span of land. The industrial park will be zoned out to cater for heavy industrial, light industrial, commercial, residential, agro-processing, and civic zones.

The land will be parceled out after cabinet approves UNOC's land allocation policy.

## 60,000 BARRELS

Uganda is looking to build a 60,000 barrels of oil per day refinery, alongside a private-sector led 1,443km crude export pipeline from Hoima to Tanzania's Chongoleani peninsula.

Uganda's government has decided to embark on its oil refinery project using a public-funded model, 10 years after the first private consortium – Russia's RT Global – was handed a contract to construct the refinery. The exit of the second consortium in June this year led to a change of strategy.

Uganda is looking to build a 60,000 barrels of oil per day refinery, alongside a private-sector led 1,443km crude export pipeline from Hoima to Tanzania's Chongoleani peninsula. According to Ugandan law, the refinery, which needs an investment of about \$4 billion, has the first right of call on the oil resources. The pipeline, on the other hand, will pump 212,000 barrels of oil per day at peak.

Uganda has so far discovered between one billion and 1.4 billion barrels of recoverable oil.

The crude oil export pipeline is expected to be commissioned some time in 2025, while the government expects to launch the oil refinery in 2028.



# After a decade of Chinese money in energy projects, Uganda looks for new direction



**ELECTRICITY**

## 10 YEARS LATER

However, 10 years later, the Karuma hydropower project is yet to be fully commissioned, with Ugandan government officials starting to ponder over a change in strategy when it comes to building other large hydropower projects.

On August 12, 2023 China marked the 10th anniversary since the start of construction of Uganda’s largest electricity plant – the 600MW Karuma hydropower project. Earlier timelines had placed the completion of the project in about five years from the start of the construction, December 2018 to be precise.

However, 10 years later, the Karuma hydropower project is yet to be fully commissioned, with Ugandan government officials starting to ponder over a change in strategy when it comes to building other large hydropower projects.

There is a worry that Uganda could slip into an energy deficit by 2028 as demand far outstrips supply, and trigger a power rationing schedule – if the country does not commission a large power plant by then. This worry is founded on the growing demand for electricity, which is likely to wipe out the available amount from the generation plants.

At least three large prospective electricity plants have been discussed in the past – Ayago, Kiba and Oriang – but no concrete decision has been made on who or when they could be constructed.

Our sources within the industry say government is delaying its decision as they reflect on the experience they have had with Chinese

companies taking up these contracts.

Just under a decade ago, Uganda’s government made a decision of ringfencing a number of large electricity generation plants for China.

On September 12, 2014, Uganda’s government issued a policy instrument under the gazette, noting that Chinese companies would undertake construction of Karuma, Isimba and Ayago, three large power projects by Uganda’s standards. The policy pointed out that the procurement of all services for the three projects (feasibility studies, construction works and construction supervision services) would be done under the Public Procurement and Disposal of Public Assets Act. It added that “The Electricity Regulatory Authority licensing procedures are, therefore, not applicable to the procurement of these services.

UEGCL will apply for the licenses after attainment of financial close.... ERA is prohibited from issuing permits or licenses for purposes of conducting studies on Karuma, Isimba and Ayago.”

However, 10 years since the start of construction of the Karuma, it is clear that China’s contractors have failed to meet government’s expectations as the construction of these projects have faced delays and questions of quality.

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# After a decade of Chinese money in energy projects

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At the moment, only four units at the Karuma hydropower project – totaling 400MW – are said to be synchronized to the national grid, with no clear schedule on when tests on the other two will be completed. The project was supposed to have been commissioned in 2019.

Isimba hydropower project, a 183MW plant constructed by China Water Electric, was commissioned in March 2019, 19 months after the date that government set for the contractor to achieve commercial operations. Nonetheless, less than four years after its commissioning, the project has run into trouble.

In August 2022, Isimba hydropower project had to undergo an emergency shutdown “due to operational challenges that led to the flow of water into the powerhouse.” The shutdown forced government to switch to the more expensive Heavy Fuel Oil-powered generations and importation of electricity from Kenya, all of which put pressure on the price of electricity. Up to this day, the Isimba hydropower project continues to face different problems.

China Water Electric is fixing dozens of defects at the project, way outside its Defects Liability Period, and one of the units at the plant is expected to be out throughout this year. That is 45.7MW of unavailable power – which is enough to power the entire northern Uganda region. The company is building a tailrace, a channel for water, at Isimba.

Now, 10 years after construction of the two flagship electricity projects kicked off, some Ugandan officials are starting to ask one simple question: was it worth it handing over these projects, whose shelf life was set at 40 years, to the Chinese? This question comes at a time when a couple of Chinese companies are interested in three other major electricity projects – the 840MW Ayago HPP, the 392MW Oriang HPP, and the 330MW Kiba HPP.

One top energy official said the Chinese model has not worked, especially when 85 per cent of

the financing came from the Asian country for both the Karuma and Isimba projects. The official said it becomes hard to supervise such contractors. The official added that there is no incentive for a Chinese contractor to do a good job if they are going to hand over the project to government after commissioning.

While questioning “the integrity of the Isimba hydropower project,” the members of parliament, in a November 2022 report into the emergency shutdown of the project, stopped short of advising government to try better companies next time. They wrote: “...Government should ensure that due diligence of such strategic projects is free of flaws and where possible internationally approved companies be selected to optimize value for money for the country.”

Attracting other international companies will take more than proving their capability. Uganda has made changes to its electricity legal regime, where a key safeguard option for investments was dropped from the law books.

Uganda has moved from the take-or-pay model to take-and-pay, which is bound to make it tough to attract companies.

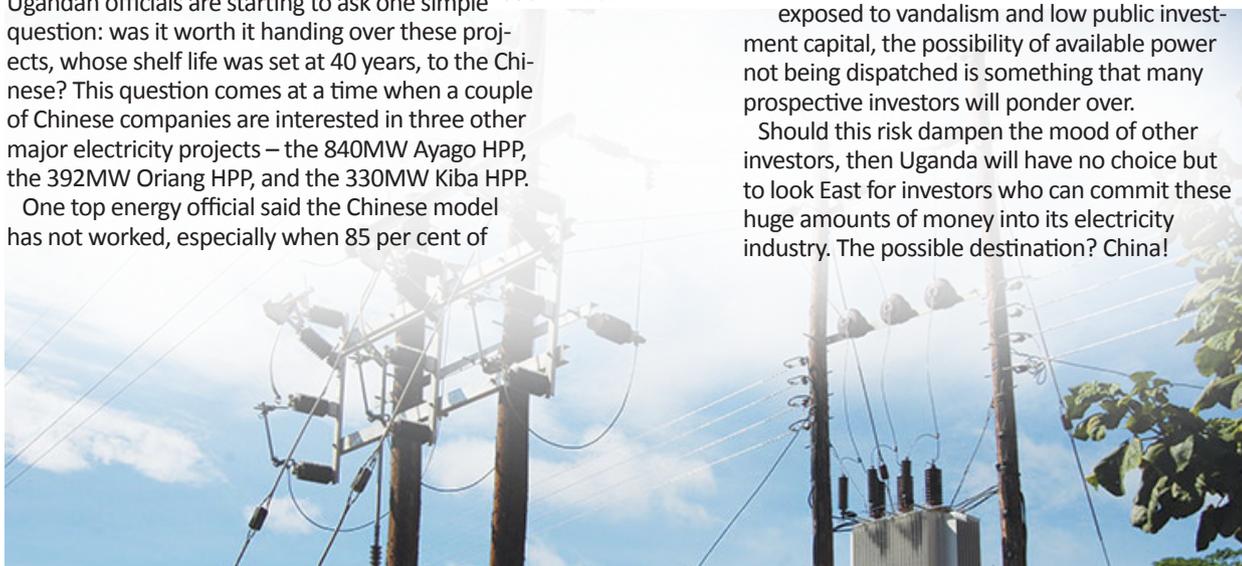
The take-or-pay model allowed independent power generators to recoup their investments regardless of whether the available power had been dispatched to the transmission grid or not. But with the take-and-pay model, payment will be done for only that electricity that would have been dispatched.

With Uganda facing challenges on its transmission network, which remains exposed to vandalism and low public investment capital, the possibility of available power not being dispatched is something that many prospective investors will ponder over.

Should this risk dampen the mood of other investors, then Uganda will have no choice but to look East for investors who can commit these huge amounts of money into its electricity industry. The possible destination? China!

## 840MW

This question comes at a time when a couple of Chinese companies are interested in three other major electricity projects – the 840MW Ayago HPP, the 392MW Oriang HPP, and the 330MW Kiba HPP.



## Karuma gets new deadline to commission operations

Uganda's government has given Sinohydro Limited, the Chinese contractor for the Karuma hydropower project, up to the end of December 2023 to fully complete the plant. The 600MW power project, which is slated to be the biggest in Uganda, is more than three years behind its scheduled commissioning.

At least four of the six units have been tested and synchronized to the grid, according to the Uganda Electricity Generation Company Limited, the asset owner. Each unit has a power generation capacity of 100MW.

However, only 60MW is said to be dispatched from the project due to the challenges on the transmission network on the Karuma – Kawanda line. Currently, there are ongoing repairs on the 248km Karuma – Kawanda 400kV

transmission lines, which, when complete, should raise the amount of electricity that will be dispatched. In December 2022, Uganda Electricity Transmission Company Limited announced that five transmission towers on the Karuma-Kawanda transmission line had been vandalized and collapsed.

When fully commissioned, the Karuma hydropower project is slated to have a significant impact on electricity tariffs in Uganda. With an agreed tariff of US cents 4.97 per kilowatt hour, which is below the national average price of US cents 9 per kilowatt hour, the Karuma hydropower project is expected to bring down the cost of electricity in the country.



## Govt, Electromaxx deal to lower thermal power costs

Uganda's government has agreed to take over Electromaxx's 50MW thermal power plant in the eastern Ugandan district of Tororo, and complete the acquisition of all the major thermal projects in the country.

In a directive published recently, government agreed to take over the Tororo plant as part of its policy to maintain the more expensive thermal power within its energy mix, so that in the event of a drop in electricity dispatch from the other sources, especially hydropower, thermal is introduced as a back-up plan.

The government said in a statement that it is committed "to have a diversified energy generation mix that ensures the energy security of the country amidst the challenges of climate change and hydrological risk experienced by hydropower plant generation."

The agreement to acquire Electromaxx comes 20 months after the Uganda Electricity Generation Company Limited took over the assets of Jacobsen Elektro AS' 50MW thermal power plant at Namanve in Mukono district.

The acquisition of these expensive heavy-fuel projects could send a signal to the market of government's intention to play a key role in the energy space, and offer a service at a lower tariff compared to the private investor. Government's involvement in the thermal power space could very

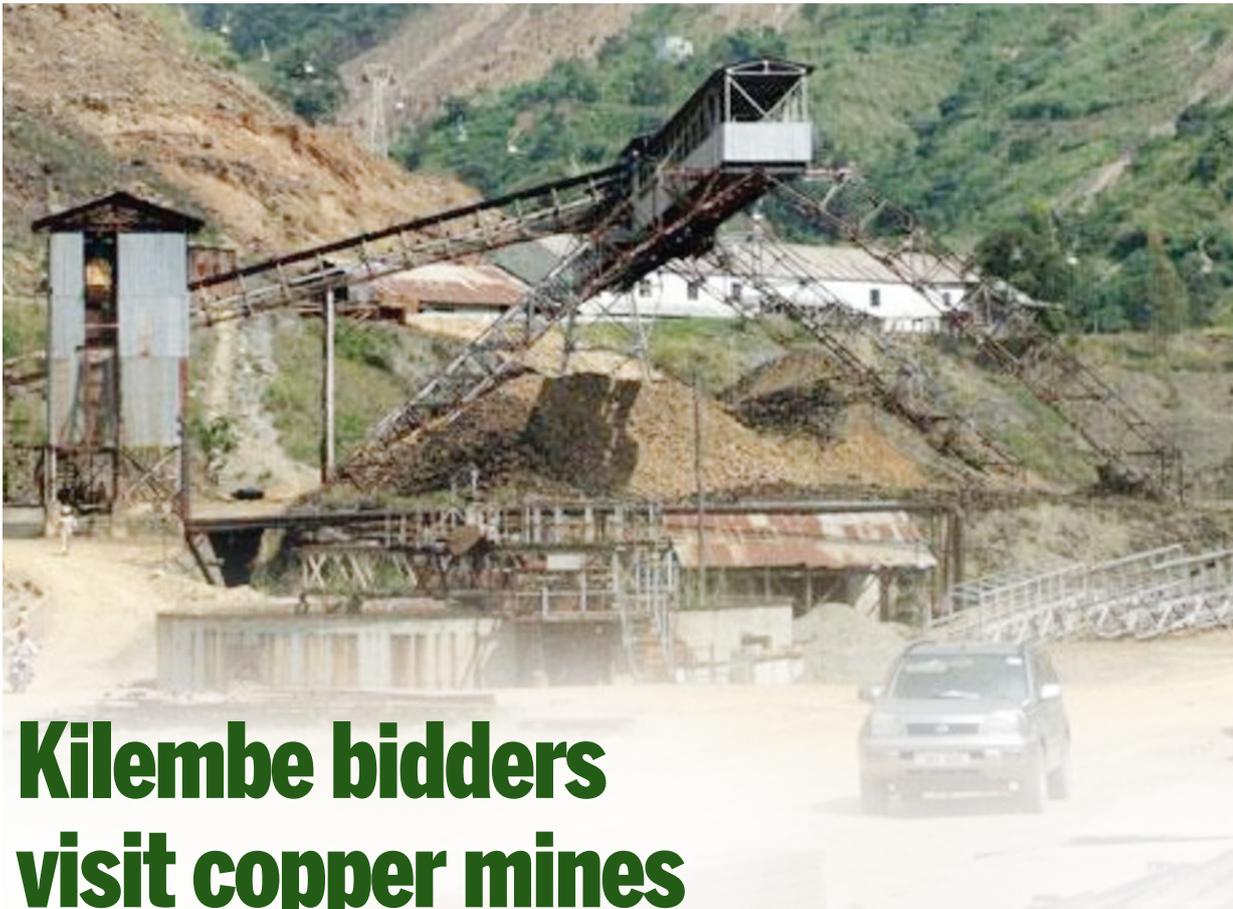
likely narrow the margins of prospective investors who might wish to put up similar projects in the country. Governments have easier access to cheaper credit lines than private investors.

Electromaxx will operate its heavy-fuel oil plant for five years after which the government will acquire it for \$1. For now, government will pay a capacity charge of \$3 per KW per hour to Uganda Electricity Transmission Company Limited, which buys the power from Jacobsen. This payment should reduce the amount of money to run the Tororo plant.

It is expected that power tariffs will drop when government takes over the Electromaxx plant. The government estimated electricity generation tariffs to drop by 18 per cent when it took over Jacobsen's Namanve thermal plant.

Uganda's electricity grid is dominated by hydropower, which accounts for more than 70 per cent of the installed capacity. Thermal accounts for about seven per cent, although that figure goes down when it comes to the actual energy dispatched.

Uganda introduced thermal power onto the grid in 2006 at the height of a drastic power shortage due to the prolonged drought that led to the drop of water levels, and ultimately affected electricity generation.



## Kilembe bidders visit copper mines

**P**lans to revive copper mining at Kilembe in western Uganda received a boost recently when representatives of the seven companies bidding for the company's concessionaire rights visited the mines as they continue to prepare their proposals before the December 16, 2023 deadline.

The ongoing Request for Proposal (RFP) stage has Jervois Global, China Railway No. 10, Gingko Energy, Liaoning Hongda (trading as Wagagai Mining), Sinomine Power China, Mota-Engil Uganda, and Sarrai Group participating.

"The visit was successful; we wait for the outcome," noted a Kilembe Mines Ltd (KML) official, who preferred anonymity because he is not authorized to speak for the company.

The bidders toured the mines, the Mubuku electricity generation plant, timber treatment plant, foundry and machine-shop plus other social infrastructure to get a feel of what kind of investment would be required to make the mines operational again, 40 years since production of copper stopped.

Canadian firm Falconbridge operated the mines in addition to a copper smelting plant in Jinja from 1956 to 1975 before it relinquished ownership to the state.

Following a combination of depressed world copper prices and inflation that eroded profits, mining ceased in

1982. Since then, Kilembe has operated under a care and maintenance basis.

Over the years, much of the infrastructure and equipment have become dilapidated due to neglect and flooding as a result of River Nyamwamba bursting its banks.

A representative of one of the bidders who also preferred anonymity in order to speak freely noted that the high costs needed to refurbish the infrastructure, including roads and buildings like office blocks, residential houses, schools and health centres, may prove prohibitive.

In 2013, Uganda's government awarded Tibet-Hima, a Chinese consortium, a 25-year concession to revamp the mines.

However, the concession was terminated in 2017 after the firm failed to fulfill most of its contractual obligations.

After the bidders hand in their proposals by December 16, the government is expected to announce the winning bid before the end of the current financial year in June

2024.

KML is jointly owned by the Government of Uganda (99.99%) and the estate of the late Rukiidi III, the Omukama of Tooro Kingdom (0.005%).

**40 YEARS**  
Machine-shop plus other social infrastructure to get a feel of what kind of investment would be required to make the mines operational again, 40 years since production of copper stopped.



## Orom graphite project gets \$5 million grant

The Development Finance Corporation from the United States of America is now officially the lead mandated funder for the Orom Cross graphite project in Kitgum district after it issued \$1 million of the agreed \$5 million grant to the project developer Blencowe Resources Plc.

The money will cater for part of the costs that Blencowe is incurring as it undertakes a Definitive Feasibility Study to assess the commercial viability of the project.

Blencowe says that the Orom Cross graphite project is “one of the largest graphite projects worldwide by size and scale of deposit.” The company estimates the amount of graphite deposits at Orom Cross to be in the range of two to three billion tonnes.

Blencowe, a UK-listed company, says the completion of a Definitive Feasibility Study (DFS) will allow the company undertake roadshows among different financial institutions as they seek investment capital to move the Orom Cross graphite project to production. One of the components that the DFS will tackle is a detailed analysis of all strategy, operational and

capital costs associated with the project.

The company had targeted to complete the DFS by the end of this year, although that time does not look achievable at the moment, with a more reasonable schedule pointing towards the end of the first quarter of 2024. This might also push the production target year of 2025 further ahead.

The Orom Cross project already has a 21-year mining license from Uganda’s government. Graphite is one of the key minerals needed for the production of electric batteries. Blencowe says the global growth of electric cars is set to hit 100 million by 2030, from the nearly 20 million today. The company adds that there are about 300 mega battery factories that will launch their production lines over the next 8 -

10 years as the world gradually shifts from dirty fossil fuels to cleaner energies.

However, the graphite industry is not without its challenges. Key among them is the limited funding available for new projects such as the Orom Cross. Blencowe estimates that the initial investment capital needed for the Orom Cross is \$62 million.

### 100 MILLION

Graphite is one of the key minerals needed for the production of electric batteries. Blencowe says the global growth of electric cars is set to hit 100 million by 2030 from the nearly 20 million today.



# Makuutu license to be issued soon

A mining license for the Makuutu Heavy Rare Earth Project in Busoga, Eastern Uganda will be issued soon, more than a year since the first application was made, the company said.

Australia's Ionic Rare Earths (IonicRE), which owns 60 per cent of the project, says it recently received notification that the large-scale mining license TN03834 for Makuutu has been approved-for-granting over Retention License (RL) 1693 by the Directorate of Geological Survey and Mines (DGSM).

Rwenzori Rare Metals, which owns the other 40 per cent in the Makuutu project, has been pursuing the license locally for a while.

The IonicRE statement notes: "... the MLA has been signed and gazetted in Uganda paving the way for the formal issuance of the Mining License once the first annual fees have been paid and land access to the RL1693 has been verified by the Ugandan department."

**40 PER CENT**  
Rwenzori Rare Metals, which owns the other 40 per cent in the Makuutu project, has been pursuing the license locally for a while.

Surface rights acquisition by a company is important before a mining license is issued in Uganda.

Recently, Ruth Nankabirwa, the Minister of Energy and Mineral Development, spoke highly of the project at the Africa Down Under (ADU) mining conference in Perth, Australia.

A clear framework for mineral development in Uganda was created once the updated Mining and Minerals (Licencing) Regulations 2023 were gazetted in August this year. Before the new Mining and Minerals Act 2022 and regulations were passed, licensing had been put on hold.

IonicRE announced a positive feasibility study over RL1693 earlier this year and received approval to build a Demonstration Plant at Makuutu, which it says is progressing well.



**Ruth Nankabirwa**

**MINING**



**RYAN COLLYER**  
CEO OF ROSATOM CENTRAL AND SOUTH AFRICA

## INTERVIEW

**We are a  
trusted  
partner -  
Rosatom  
chief**

Russia's Rosatom is one of the biggest companies in the world undertaking numerous nuclear power projects. The company has signed a number of memoranda and intergovernmental agreements for the application of safe nuclear technologies in a number of countries such as Uganda, Burundi, Rwanda, Ghana just to mention a few. DEEP EARTH caught up with Ryan Collyer, the chief executive officer of Rosatom Africa, in Cape Town, to discuss the future of Rosatom's prospects in Africa.



## We are a trusted partner - Rosatom chief

**Rosatom has signed a couple of MOUs around Africa, but we are yet to see actual work on the construction of a nuclear plant. When should we expect to see a signing of a contract for a project happening?**

Yes, thank you very much. I mean, we have signed beyond just MOUs, we have signed intergovernmental agreements with a number of African nations. And that is really one of the first steps in terms of moving.

We have signed a number of MOUs on peaceful uses of nuclear energy.

We have signed memorandums of understanding in terms of human resource development in a number of countries, as well as in public acceptance.

And these are really sort of the fundamental first steps in terms of working together to achieve the country's nuclear ambitions.

In terms of Africa, we already have a plant that is under construction. That is in Egypt. And that is a very large 4,800 megawatts facility nuclear power plant.

That is our flagship project on the African continent.

But, you know, we are making strong progress in a number of countries in Africa.

And I think one needs to understand that a nuclear project is not something that happens overnight.

So, there are fundamental things that need to be put in place in a country before you can actually embark on a nuclear program.

So, generally, newcomer countries - countries that don't have nuclear facilities - will work with the In-

ternational Atomic Energy Agency on the key milestone approach.

And there is really 19 fundamental key issues that need to be resolved within a country.

And then they can embark safely and effectively on their nuclear programs.

So, we have seen countries like Uganda, Ghana, Nigeria, and Rwanda, moving through the steps of the key milestone approach with the International Atomic Energy Agency. And really making very good progress.

**And how are your prospects in Uganda, where the government is considering a couple of vendors, and appears to have narrowed down to one particular country?**

We are always excited to see countries explore nuclear energy. Like I said, it is a long-term program. So, Uganda has done very well. We signed an intergovernmental agreement with Uganda in 2019. So, that was sort of the first step. And we have continued working with our Ugandan counterparts.

We still see great prospects in Uganda. So, I know that Uganda is trying to position itself as an energy hub in the region.

And we are ready to work with the Ugandan government to assist them in achieving their vision.

**Uganda's President Yoweri was quoted in the media recently, where he said Russia was ready**

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**to build a 15,000 MW nuclear power plant. Do you believe that amount of power is sustainable for an economy like Uganda's?**

When it comes to nuclear power, you need to really study what the prospects are.

You need to understand the grid infrastructure. You need to understand the required energy needs of the country and its neighbours. And then you would do a feasibility study and you would base your outcome and your project on that.

So, I think we need to be realistic. And it is not a question I can say yes or no to.

Because a lot of work needs to be done for us to be able to understand what is really feasible and what would work best for Uganda and for the neighbouring countries.

**There is always this debate between what is best for a country when it comes to putting up a large and small modular nuclear reactor. Uganda and Ghana have agreed to do large nuclear reactors. Many vendors seem to prefer small modular reactors. In terms of the continent, East Africa in particular, what would you, for example, advise that countries should look at?**

Again, I think reactors need to be fit for purpose. So, we have an offering in small modular reactors. We have an offering in floating nuclear power plants.

And then we have an offering in our large-scale VVER-1200, which is our flagship reactor.

And our vision is that we need to work with our counterparts to choose the reactor that best suits their needs.

So, again, if it is going to be a sharing of a large reactor between countries, I think that could be a viable option.

One needs to understand that the capex of a larger plant is obviously higher, but you have got economies of scale. So, the price of the electricity out of a large reactor is generally slightly less than that from a small modular reactor. Small modular reactors definitely have their place, though.

And I think, you know, our offering now in floating nuclear power plants for coastal countries is a very good offering because it is something that could be done in a shorter time frame and it is something that could be done perhaps through a power purchase agreement, and not having a full capex expenditure within a nation.

So, again, it is not a question of which one is better. It is a question of which one is more suited to the requirements of a country, more suited to the industry in that country or surrounding countries.

So, we really need to work with our partners. We need to understand what the requirements are,

what the needs are, and then we would make a decision together on what reactor is most suited to their needs.

In many cases, perhaps it is better to start with a smaller reactor. Perhaps the grid infrastructure cannot currently accept a large reactor, for instance. And then you can always start with smaller reactors and, in parallel, work on the larger reactors as well.

**Speaking of small modular reactors, a couple of African governments like Ghana, for example, have said they do not want a first of its kind reactor. How close are you to having any of your small modular reactors internationally approved?**

One important thing about Rosatom is we never offer our clients the first of a kind. So, we would never come to a country and say we're going to build our first of this reactor or this project in your country. We always do it in Russia first.

So, we have proven reactors, proven projects that we are able to then duplicate globally.

So, in Russia already, we have got Academic Lomonosov. And Academic Lomonosov is the first floating nuclear power plant which is already connected to the grid. And it is producing electricity already.

So, we have got something that we are able to show that this is an operational floating nuclear power plant.

Then we have also got our land-based SMR, which is now under construction in Russia and it should be completed around 2028.

And then we would have a referenced land-based small nuclear power plant, which we would be able to duplicate globally.

So, for us, it is very important and we understand the need to take a proven technology to the market. And that is always what we do.

**You talk about speaking to your partners for a feasible solution. There are issues of regulators not understanding the nuclear market because it's really a nascent industry. What sort of support have you given to African countries in terms of training and capacity building?**

Currently, we have about 2,000 African students studying various nuclear disciplines in Russia. We actually got a number of students from Uganda studying in Russia as well.

Human resource development is one of the key things in terms of creating a successful nuclear project.

## VVER 1200

And then we have an offering in our large scale VVER 1200, which is our flagship reactor. And our vision is that we need to work with our counterparts to choose the reactor that best suits their needs.

You need to have a client that has expertise in-house so that they are able to work with us in terms of choosing the best solution and then implementing that solution.

You know, we are a large organization. We have got 270,000 employees. And we are building a lot of projects around the world.

So, localization and local import is very important for us.

In terms of regulations, again, I am going to go back to the International Atomic Energy Agency's key milestone approach. This is an approach that countries, when they want to embark on a nuclear program, should work through.

And that would then entail, perhaps, changing some legislation, setting up a nuclear regulator, and the implementation organization for a nuclear program. And that's all within the scope of the International Atomic Energy Agency.

We have a very good regulator in Russia. And they are also happy to work with regulators around the world in terms of, let's say, transfer of knowledge to be able to license our reactors in third-party countries.

**When we discuss issues around nuclear, we are looking at huge megawatts. For a country like Burundi, with a smaller economy, maybe nuclear is too ambitious. Is it commercially viable for a company like Rosatom to consider a nuclear project in Burundi?**

You must also remember that a country like Burundi has a very low electrification rate. I think, if I am not mistaken, it is around 12 per cent. And that needs to change.

The country also has ambitions to industrialize. They believe they have minerals that they would like to benefit from. And all of this requires energy.

So, again, it goes back to these long-term programs. We can work with a country like Burundi in terms of getting to a point where they are able to actually implement, perhaps, a small modular reactor program in the country.

But then you must also remember that nuclear goes far beyond just electrification. We are able to offer research reactors, which play a huge role in science development, in nuclear medicine, in industry.

We are also able to offer standalone nuclear medicine facilities. And nuclear medicine is something that is sorely lacking in Africa, unfortunately. And these are life-saving technologies. And they are also technologies that show immediate economic benefit to countries.

Also, there are projects like multipurpose radiation facilities. So, multipurpose radiation facilities are for the radiation of foodstuffs, and radiation of medical equipment.

And by implementing these smaller projects first, you are able to build a country's nuclear expertise, build the human resource capacity that is required.

And then you work towards the long-term plan, which is the nuclear power plants for electrification.

I think we are a vendor that's willing to work with all



**Ryan Collyer**

# BOARDROOM TALK

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**A nuclear power project**

partners in Africa.

We are willing to look at the circumstances, the scenarios in which those countries are in currently.

And work with them, either in the short term or the long term, to realize their vision and their dreams.

**Outside of Egypt, I think we see Ghana moving closer to actually launching a nuclear project. What are your chances in Ghana as the country moves closer to announcing a vendor for its nuclear project?**

I think that is a difficult question. We would like to believe our chances are good everywhere.

We have been working with our counterparts in Ghana for many years. We have again expressed our desire and willingness to work in Ghana. And I think the Ghanaians have done a tremendous amount of work. They are now at a point where they are actually able to go out and source a vendor.

They are in phase two of their program. And again, we would love to work there.

I must say, though, that we are very confident as a vendor globally. Currently, we are number one in terms of the construction of nuclear power plants, nuclear units outside of Russia.

And I think that really goes to the fact that we are not just a vendor that goes and builds something and leaves.

We form long term partnerships, long term relationships with our partners.

We are able to assist them all the way from the human resource developments, the public awareness campaigns, all the way through building the program.

And even after building the program, we are able to supply them fuel on long term contracts.

We are able to offer maintenance and operations, all the way through to decommissioning.

So, you are looking at sort of a hundred-year partnership.

We are also a vertically-integrated company, meaning that we are able to do all of that in-house.

I mean, Rosatom itself is made up of around 300 different companies and employs 270,000 people. And we have got amazing technology.

We had the first generation 3 plus technology on the market commissioned, which is our flagship VBR 1200 reactor.

So, I think, you know, in terms of that, we are able to offer a full turnkey solution. And I think that is really what differentiates us.

## 1200 REACTOR.

We had the first generation 3 plus technology on the market commissioned, which is our flagship VBR 1200 reactor.

**With all that is happening in Russia, and with the sanctions, how has this impacted Rosatom?**

I can tell you that we have continued on all of our projects except maybe one.

And that was purely for political reasons. We are a trusted partner in the industry.

# Kenya eyes hydrogen energy as it sources \$306m for renewables

Kenya has unveiled its draft renewable energy plan, offering an update on its ambition to introduce a new source of energy – hydrogen – as the country looks to build a revenue kitty of \$306.5 million to support its transition towards cleaner forms of energy.

In its draft prospectus for the *Climate Investment Funds Renewable Energy Integration Programme Investment Plan*, East Africa's largest economy said it "is fully focused on leveraging on its abundant renewable energy resources and in particular the huge geothermal resources in the Rift Valley and Nyanza regions to develop green hydrogen."

Kenya has drawn up an investment plan seeking \$306.5 million to develop at least four energy components – geothermal, hydro, solar, and wind. Of this amount, \$70 million is expected to come from the Climate Investment Funds, in what is likely to give the country a push towards embarking on its energy transition journey.

The investment plan, which was drawn by a committee from the Climate Investment Funds, and drew comments from the public, suggests a blend of concessional loans, guarantees, grants, and the possibility of equity funding and mezzanine financing as sources of funds. These funds, according

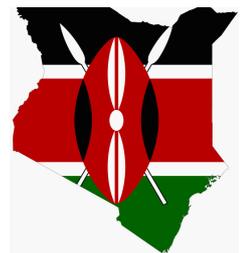
to the prospectus, will be received by the ministry of Energy and Petroleum, through the National Treasury and Economic Planning. The money will then be disbursed to the implementing agencies such as Ministry of Energy and Petroleum, Kenya Transmission Company Limited, Geothermal Development Corporation, KenGen and Kenya Power.

Kenya wants to decarbonize its energy sector and achieve 100 per cent clean energy by 2030.

In achieving its decarbonization target, the government believes it can drag down the levelized cost of electricity to \$8.68 cents from \$9.24 cents, through optimized power system dispatch, and reduced energy losses due to the deployment of smart energy meters.

It is the introduction of hydrogen into its energy mix that will attract new attention. Hydrogen, which has attracted global interest, is an emerging energy source that is extracted from renewable energies.

Kenya is one of the biggest producers of geothermal in Africa, and the country is keen on developing a hydrogen energy industry out of its different renewable energy sources. Kenya generates 940MW of geother-



mal, which accounts for nearly half the country's energy output. The country has already listed other unexplored sites for geothermal extraction.

Kenya has already developed a Green Hydrogen Strategy and Roadmap, which is expected to guide the country on developing the resource.

Among the targets it has set for itself, Kenya expects to have its first green hydrogen energy project operational by 2027. Already, the country intends to commission KenGen's Olkaria green hydrogen and fertiliser facility as a demonstration project before the end of 2024.

The roadmap estimates to have 350MW to 450MW of hydrogen energy between 2028 and 2032.

The roadmap, however, warns of the risks to realising this hydrogen energy dream.

The document notes that "despite the growing momentum surrounding hydrogen, the vision of green hydrogen, although technically feasible, has yet to achieve commercial viability." It adds that "the development of a market for green hydrogen and its

derivatives, whether domestically or internationally, presents challenges that Kenya is not immune to. A crucial factor in any hydrogen strategy is the ability to identify early off-takers; the primary risk revolves around uncertainties related to market demand and pricing (affordability and willingness to pay) for green hydrogen and its derivative products."

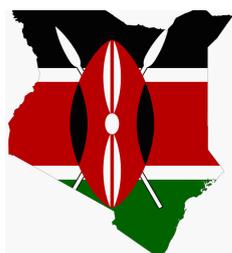
The government of Kenya is expected to design a legal framework for hydrogen investment which will be fed into the country's national energy policy by October 2024.

## 350MW – 450MW

The roadmap estimates to have 350MW – 450MW of hydrogen energy between 2028 and 2032.

The roadmap, however, warns of the risks to realising this hydrogen energy dream.

# KENYA



## Kenya Pipeline Company acquires Kenya Petroleum Refineries Ltd

**K**enya Pipeline Company has completed the acquisition of Kenya Petroleum Refineries Limited for no cash consideration, in a move that the government says will improve the supply of petroleum products in the market.

The government had already approved the transfer of assets from KPRL to KPC – both of which are government entities - in July this year, with the process culminating in the signing of a share transfer agreement in late October between Prof. Njuguna Ndung'u, the cabinet secretary of National Treasury and Economic Planning, and Davis Chirchir, the ministry of Energy and Petroleum cabinet secretary.

KPC, which has already been using the assets of KPRL, is expected to invest more money into its newly-acquired facilities, with a keen interest in the liquefied petroleum gas. The investment is expected to increase the sale of liquefied petroleum gas in Kenya.

"Acquisition of KPRL by KPC will enhance penetration of liquefied petroleum gas (LPG) usage in the country through the development of LPG bulk import handling

and storage facilities. This will result in optimal utilization of the KPRL facility by fostering synergy in the petroleum value chain through efficient use of the existing downstream petroleum infrastructure," a statement from KPRL noted.

KPC is looking at the liquefied petroleum gas market to boost its revenue streams. The company depends heavily on the tariffs the government sets on petroleum products. However, over the last two years, tariffs have generally dropped, which has seen KPC record lower-than-expected revenues. The LPG stream is an urgently-needed revenue stream.

By acquiring KPRL's assets, KPC now has additional storage capacity, which is expected to lead to a drop in demurrage charges that the company has been incurring.

Also, KPRL has large pieces of land that KPC intends to use to expand its different business lines.

KPC has customers as far as eastern DR Congo, Rwanda, just to mention a few.

**KENYA**

## Base Resources to wind up Kenya operations

Base Resources Limited will stop mining activities at its flagship Kwale base metals project in the southern tip of Kenya at the end of 2024, the company has announced.

The Australian junior mining firm cited the depletion of base metal resources as the Kwale mine approaches the end of its life.

"We have explored all avenues for further extending the life of Kwale operations. However, despite these efforts and broad support from the local community, we have been unsuccessful

in identifying additional mineral deposits of sufficient grade or scale to support further extension. The company's focus at Kwale now necessarily turns to detailed closure planning and transition to post mining land use whilst ensuring we continue to safely extract minimum value from the remaining ore reserves," Tim Carstens, the managing director of Base Resources, said in a statement.

The Kwale mine operations are the foundation on which Base Resources has been built. The closure of Kwale is an indication that

the company could be winding up if it does not find a value resource to explore over the next one year. The company has already announced to its shareholders that it is uncertain it will find new ores in the available time left.

Base Resources is one of the most active and prominent mining companies in Kenya. From the base metals, the company processes ores to recover three separate products – ilmenite, rutile and zircon. These minerals are used in the production of paint, ceramics, among others.

# Tanzania readies to auction oil blocks

Tanzania expects to launch its fifth oil and gas licensing round and auction a number of blocks between December 2023 and early 2024, government officials have said. The auction is expected to attract new investors into the country and add to the already existing 11 licensees operating in the industry.

Petroleum Upstream Regulatory Authority (PURA) is currently demarcating the blocks to be auctioned and preparing data packages for each block.

“So far, 26 blocks have been earmarked to feature in the proposal for the licencing round, 15 of which are onshore and 11 offshore...” a company official said.

PURA said the auctioning of the blocks is estimated to cost a total of \$1.4 million. The authority added that for the fiscal year 2023/24, the government, through PURA, has allocated \$200,000 for the initial preparatory work for the auction.

The announcement of the licensing round coincides with the conclusion of the collection of 2D seismic data for the Eyasi Wembere basin, with initial results pointing to what could be positive results. The Eyasi Wembere basin stretches more than 10,000 square kilometres.



TANZANIA

## Helium: Positive results boost Tanzania prospects

Two of the top explorers of helium in Tanzania have announced promising results from their recent drilling campaigns, boosting hopes of the country becoming a producer of one of the most critical components for inflating balloons by 2025.

Australia's Noble Helium Limited and the UK's Helium One say they have made discoveries whose results beat their expectations. Both companies operate in Rukwa, located in the southwestern part the country, although Helium One also has other sites.

Noble Helium Limited said it encountered visible helium from the first hole it drilled at its Mbelele-1, while Helium One said its Tai-3 well encountered helium the deeper the rig went, reaching its total depth.

“We have achieved an excellent first result confirming a potentially significant helium system in the North Rukwa basin from our first well. Drilling encountered more than double the total net reservoir thicknesses than those estimated by the Company,” Justyn Wood, the CEO of Noble

Helium Limited, said.

Lorna Blaisse, the chief executive officer of Helium One, said: “We are delighted with the initial results at Tai-3 and it was extremely encouraging to see the helium shows increase with depth, as we had anticipated. We are pleased to have successfully Total Depthed safely...”

Noble Helium said due to the complicated design of Mbelele-1, the company had no plans of turning it into a producer well. Instead, the company has plugged and abandoned the well, which, in layman speak, means filling it up with cement.

Now, Noble Helium will shift its attention to Mbelele-2, which has the potential of being a producer well.

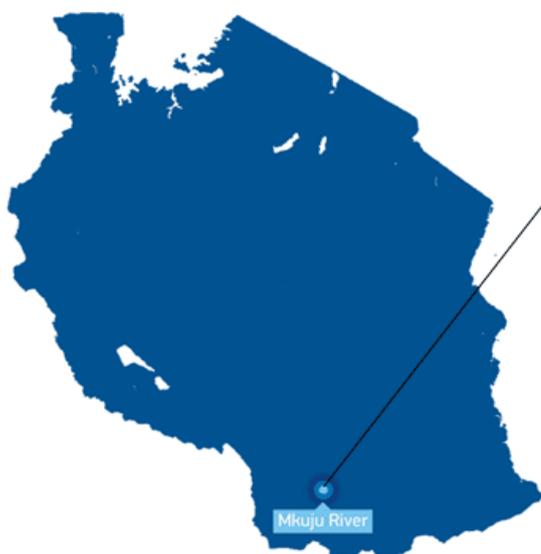
Helium One says it still has some work to do at the Tai-3, before it embarks on the Itumbula well.

Helium is mainly extracted from natural gas, which Tanzania has in abundance. Helium has different uses such as in scientific and medical research.

# Companies predict huge uranium deposits in South Tanzania



TANZANIA



Uranium Resource Base:

≈ 58,500 tons

It is early days, but Australia's junior wildcat firm AuKing Mining Limited says initial results from its drill program over the Mkuju uranium project in southern Tanzania, have returned high-grade results and raised optimism that the company could be sitting on a world-class mine.

Exploration works started in late August albeit with challenges. Up to 3,000 metres were drilled during stage 1.

AuKing Mining Limited is optimistic that the close proximity of its project

to the Russian-owned Nyota uranium project by a Rosatom subsidiary, Uranium One, will turn around the company's fortunes. The Nyota deposit is said to be one of the world's largest uranium projects with a resource reserve of 152 million tonnes of ore. From 2017 to 2020, the project was under maintenance.

AuKing's CEO Paul Williams said: "These initial results from this program establish Mkuju's case as a major target for uranium mineralisation and we look forward to what the

rest of the program reveals over the coming weeks."

The exploration faced its own challenges. The mobilization of the rig took days to complete. And when it arrived, the rig experienced a number of technical problems.

The company has already mobilised a more advanced rig to drill other deeper holes in anticipation of better results.

Gladiator Resources, another Australian company, which is scouting for commercial deposits of uranium within the Mkuju area, and whose license area is only 50 kilometres away from Uranium One's project, says the revaluation of previous exploration results point to a strong potential of promising results.

Gladiator says it is already opening up access tracks in preparation of a drilling campaign in early 2024.

## Tanzania-Kenya 400kV line to be completed in December

One of the longest high-voltage electricity transmission lines in East Africa is expected to be commissioned in December 2023. The Kenya-Tanzania 400kV line, which will run for 507.5km, is expected to boost the transmission grid of the two countries, and improve many people's access to electricity.

The completion of the line will allow Tanzania to import electricity from Ethiopia for the first time through the Kenya system. Already, there is a transmission line between Kenya and Ethiopia, onto which the Tanzania line will feed. The Kenya-Tanzania 400kV interconnector will form part of the Eastern Africa Electricity Highway, which has a transfer capacity of 2,000MW.

The African Development Bank –

the main financier of the Kenya-Tanzania interconnector project – said it expects to release the last batch of its disbursement to the project's implementing agency – Tanzania Electric Supply Company Limited – at the end of 2023. The total project cost is estimated at just over \$300 million.

Tanzania accounts for the largest distance of this electricity interconnector, covering 414.4km. And as such, a number of other infrastructures will be built in Tanzania as part of this project. For example, a 400kV substation will be constructed in Arusha, plus an extension of the existing Singida substation. There are no works related to any substation in Kenya.

However, the World Bank says

there is need for a new substation in Kenya to support the smooth evacuation of power onto the Kenya-Tanzania line. Through its support towards Kenya's Green and Resilient Expansion of Energy (GREEN) Program Phase 2, the World Bank will finance the construction of the proposed 400kV substation at Kimuka, which will enable integration of the Kenya-Tanzania transmission line. The Kimuka substation will be constructed at Ngong' on land owned by Kenya Transmission Company Limited.

The completion of the Kenya-Tanzania line will further reinforce the need for a fully integrated East Africa power pool, and improve supply to areas where there is little or no access to electricity.

# Rio Tinto, Aterian Plc agree on Rwanda lithium project



# RWANDA

**U**K junior mining firm Aterian Plc has announced that it has passed all the conditions that Rio Tinto – one of the world’s largest mining companies – needed to initiate a farm-in into its Rwanda lithium project, and that the joint venture is now effective.

In early August, Aterian issued a notice saying that it had signed a definitive Earn-In Investment and Joint Venture Agreement with Rio Tinto Mining and Exploration Ltd for its HCK project in southern Rwanda. Since then, Aterian says, “Rio Tinto has been active in Rwanda, establishing its operational infrastructure and recently commenced field operations on the HCK Project.”

Aterian says it holds a 2,750-hectare exploration licence over the HCK project, which, it adds, is highly prospective for lithium-bearing rare metal pegmatites. The company adds that at least 19 individual pegmatite zones have been identified on the project, with the HCK-1 target considered evaluation ready. Lithium has turned out to be one of the most sought-after minerals because it is one of the critical compo-

nents in the manufacturing of electric batteries. Electric batteries have taken centre stage in the global energy transition debate and are being promoted in order to reduce over reliance on dirty fossil fuels that are partly responsible for the gas emissions that have disrupted weather patterns, otherwise known as climate change.

Financing the HCK project and getting it to production level is why Aterian needs Rio Tinto to journey with it.

According to Aterian, Rio Tinto has the option to invest \$7.5 million in two stages to earn up to a 75 per cent interest in the HCK licence.

The first stage of the exploration expenditure requires \$3 million over a period of up to two years, which will see Rio Tinto earn a 51 per cent interest in the licence.

The second stage

of the exploration expenditure will require \$4.5 million over a follow-on period of up to three years to earn a further 24 per cent interest in the licence, taking Rio Tinto’s interest in the licence to 75 per cent.

Rio Tinto will also offer Aterian a cash consideration of \$300,000 over the two stages.

Rio Tinto is yet to issue a formal notice over this joint venture.

Aterian holds a 70 per cent interest in Kinunga Mining Limited, which holds the licence for the project, with HCK Mining Company Limited holding a 30 per cent interest. The licence

is located approximately 65km southwest of Kigali and 20km northwest of Huye, within the Southern province.

Aterian says it is pursuing other licenses in Rwanda which it intends to interest Rio Tinto in buying into.

**\$7.5 MILLION**  
According to Aterian, Rio Tinto has the option to invest \$7.5 million in two stages to earn up to a 75 per cent interest in the HCK licence.

# AfDB tips Rwanda on \$11 billion carbon neutral plan

The Africa Development Bank recently released the Rwanda Focus Report 2023 pointing out that Rwanda will need the private sector to design different financing models if the country is to source \$11 billion by 2030 in order to become a carbon-neutral economy.

The report calls on Rwanda to refine its policy framework to create a conducive environment for the issuance of green bonds, green loans, and sustainably-linked debt.

Tweaking its legal framework is something that private sector players should not worry when it comes to Rwanda. The report notes that the country has shown strong political commitment towards green growth and climate action.

The report noted that in May 2020, Rwanda became the first African country to submit its enhanced Nationally Determined Contributions to the United Nations Framework Convention on Climate Change (UNFCCC), committing to a reduction in greenhouse gas emissions of up to 38 per cent.

Rwanda launched the Rwanda Green Investment Fund (RGIF) at the COP27 conference at Sharm el-Sheikh in Egypt, “which was successfully capitalized with \$104 million and has been financing project preparation and providing concessional credit facility loans and guarantees to support small and medium enterprises (SMEs) to invest in green projects.”

And also, in 2022, the Rwandan government scrapped subsidies on petroleum products, thus making investment in clean energy much more desirable.

Rwanda has also implemented power purchase agreements for renewable energy and developed



feed-in tariffs for providers of clean energy to encourage private sector participation in energy projects.

The report says work is needed on a more refined estimation of the value of renewable energy sources such as sunshine, methane gas in Lake Kivu, wind, and hydropower.

Despite this political will, Rwanda faces challenges mobilizing private sector financing due to high upfront capital needs to develop key projects, financing costs from banks, and collateral requirements, the country report notes.

## Trinity Metals expects promising results at Ntungwa lithium project

Trinity Metals, one of the largest mining companies in Rwanda in terms of size, says it has commenced a new phase of exploration drilling at its Ntungwa project as the potential for lithium grows.

The company announced that the current phase of drilling will be completed at the end of the first quarter of 2024, adding “We are confident that we will be able to progress into a feasibility study.”

Trinity said it is committed to

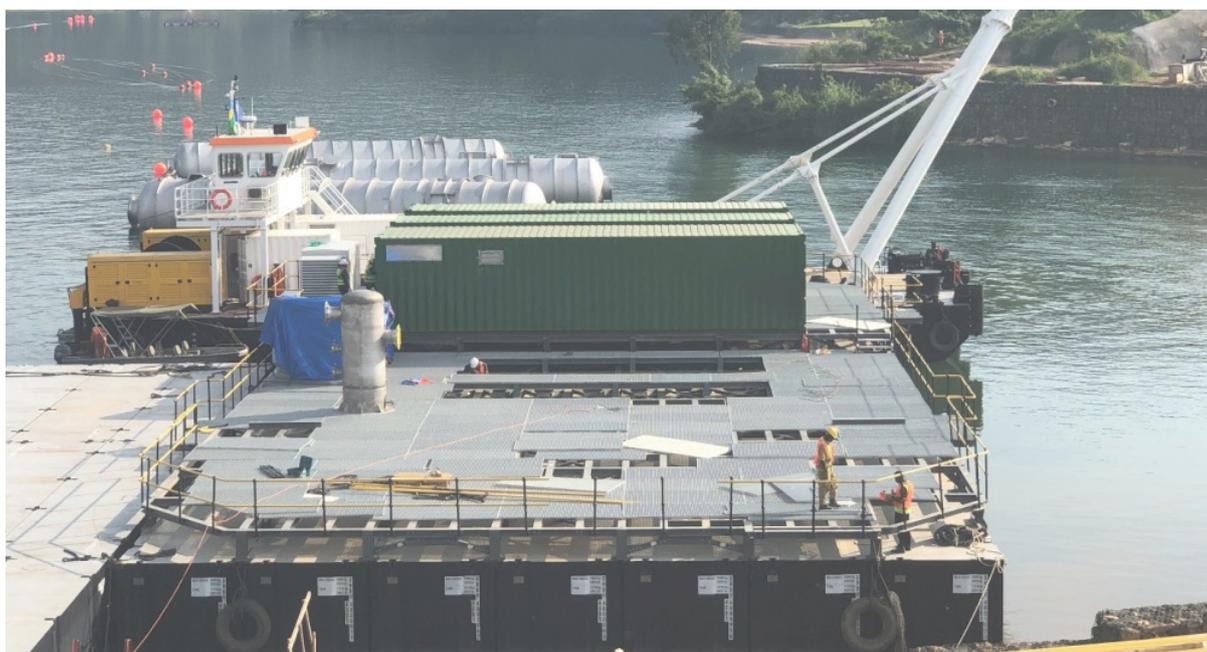
advancing the Ntungwa project and “anticipates an updated resource statement in the near term.” Already, the company says it has intersected additional high grades of lithium ores within its license areas, and is confident that the next set of results will be promising.

Trinity Metals is a merger of three companies – Piran Rwanda Limited, Rutongo Mines, and Eurotrade International Ltd, which was created last year.

Trinity Metals was formed after two years of negotiations between shareholders of the three companies.

The purpose of the merger, the company says, is to build “upon the strengths of each of the three companies to achieve operational synergies such as increased production capacity, greater supply chain leverage, improve career growth opportunities for employees and stronger community and government relations.

# Rwanda's biggest methane power plant goes on grid



# RWANDA

**R**wanda will feel a bit of financial relief after it shut down all its expensive diesel-powered generators, and then connected its largest methane gas power plant onto the national grid.

At least 37MW of methane gas power from Shema Power Lake Kivu plant has been connected to the grid, offering a cheaper source of energy. Rwanda expects the plant to hit its full capacity of 56MW by next year.

In connecting the methane gas

power plant onto the grid, Rwanda has also diversified its energy mix, offering different options to choose from.

The \$220 million plant has four gas extraction facilities located 5.5km offshore, an export pipeline (anchored 20m below the lake) and a power plant, and other associated infrastructure. Construction of the plant started in October 2019, but its schedule for commissioning was hampered by the disruption from the Covid-19 pandemic.

Shema Power Lake Kivu Ltd

signed a 25-year power purchase agreement with the government of Rwanda for its project. The plant is the third methane gas project to be connected to the grid. The other two are the 26MW Kivu watt project by a US company called Contour Global, and the Kibuye Power of 3MW.

At least five diesel power plants, whose combined capacity accounted for 26.7 per cent of Rwanda's energy output, have been shut down.

## Bboxx to tap \$17 million clean energy kitty

Bboxx, a company providing clean energy solutions, has signed a contract with the Development Bank of Rwanda (BRD) to tap into a World Bank-subsidy programme to roll out clean cooking solutions to half a million households across the country. This subsidy programme, the company noted, is an envelope of \$17 million for the industry, accessible depending on the performance of operations.

Bboxx, which defines itself as a data driven super

platform, said depending on its performance, it has the option to access a budget allocation extension upon completion of the first tranche of the project. The funding programme is intended to reduce the public's dependence on the use of firewood, which emits carbon dioxide into the environment and is largely responsible for the drop in Rwanda's forest cover. Clean energy cooking solutions will mainly come in the form of liquefied petroleum gas.

# Chemaf leaves door open for a takeover



DR CONGO

**C**hemaf Resources Limited says it is exploring all possible options – including the sale of its shares in its DRC projects - in the pursuit of funds to expand its copper and cobalt projects.

“In August 2023, CRL commenced a strategic review process in respect of Chemaf with a view to securing funding to bring Etoile Phase 2 and Mutoshi to production as quickly as possible, given the significance of these projects to the DRC and its people,” the company announced in a statement.

It added: “CRL’s strategic review process is being led by CRL’s strategic advisor, Jeremy Meynert. As part of this process, CRL is evaluating all possible investment alternatives with respect to Chemaf. There are a range of possible outcomes from this strategic review process including the sale of the shares in CRL or the introduction of a new funding partner.”

Chemaf has been a subject of numerous media outlets over the last couple of weeks, many of which reported that the firm was up for sale. Now Chemaf Resources Limited, which is headquartered in the United Arab Emirates, has put those rumours to bed, saying it



does not rule out the option of a sale of its asset.

In a statement, the company said it had embarked on an ambitious expansion of its Etoile Mine and the construction of a new green-field mine, Mutoshi.

“These projects which are more than 80 per cent complete will collectively produce, at their peak, more than 75,000 tonnes of copper and 25,000 tonnes of cobalt hydroxide annually,” it noted.

Chemaf said that it had invest-

ed more than \$570 million in the expansion of the Etoile mine and the Mutoshi project. It added that it needed between \$250 million and \$300 million to get the two projects on production.

However, different media outlets reported that Chemaf is saddled with high levels of debt, and the situation has been further complicated with the drop in cobalt prices on the international market due to low demand.

## UK’s Critical Metals looks to acquire Katanga assets

UK mining investment firm Critical Metals Plc has entered into a non-binding term sheet to acquire all the assets of Katanga Strategic Resources for \$8 million as the company seeks to deepen its footprint within DR Congo.

Critical Metals Plc, which already operates the Molulu copper/cobalt project in DR Congo, has agreed to initially rent Katanga’s

plant for six months, and further increase its stay if need be. The plant, which will attract a monthly rent fee of \$100,000, has a feed capacity of 12,000 tonnes per month of copper oxide/cobalt ore, according to Critical Metals.

Critical Metals Plc is expected to enter into a binding agreement for the same project before the end of this year.



# Canadian firm seeks approval to deploy game-changing tech

Central America Nickel Inc. is lobbying the government of DR Congo to be able to deploy its special technology, which, it says, can increase the mineral recovery rate of rare earth elements.

The Canadian company said it had filed an application with the DR Congo government that, if approved, would introduce a process of extracting and recovering more rare earth elements, on top of selectively extracting and separating radioactive components such as uranium from rare earth components.

The use of the ultrasound-assisted extraction technology, the company pointed out, “is crucial for the ability to export and transport material internationally, as well as for further processing into refined end-products intended for the green industries.”

Central America Nickel said it had achieved over 84 per cent recovery of rare earths in solution, and that it had hit more than 90 per cent recovery of certain metals within the basket of rare earths. These recovery rates are not common in the rare earths industry, the company pointed out.

The Canadian firm said that together with its joint venture partner – Auxico Resources Canada – it is developing a diversified supply source of critical minerals, including rare earths, from properties in the DR Congo, Colombia, Bolivia and Brazil.



DR CONGO

## Tshisekedi commissions \$656 million Busanga hydropower plant

The recent commissioning of the 240MW Busanga hydropower station is set to improve access to electricity among the people of Katanga province, who had to deal with erratic power supply. This has also deepened relations between the DR Congo and China in the energy sector.

President Felix Tshisekedi launched the \$656 million project, commending the contractor – China Railway Engineering Corporation – for reaching the milestone. China’s Exim bank lent the money to the project at an annual interest rate of 6.1 per cent.

The project also involved the construction of a 13.15km 500 kV transmission line to evacuate power from the hydroelectric power plant.

The electricity generated is expected to support the Sicominex copper mine in Kolwezi, which is expected to double its annual production of copper.



# Calendar



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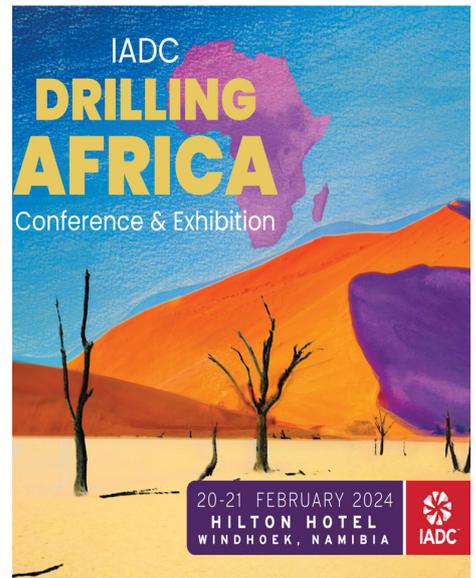


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