

25 August 2022

## MAKUUTU RARE EARTH PROJECT UPDATE

- **ESIA public hearings in Uganda successfully completed with over 3,800 registered attendees demonstrating strong Governmental and local stakeholder support**
- **Minister for Energy and Mineral Development affirms support of the Makuutu Rare Earth Project with members of parliament, the four Districts, Kingdom leaders and local community members through stakeholder initiatives**
- **Resettlement Action Plan moves into final stages and will support Mine License Application, both to be completed by end October 2022**

The Board of Ionic Rare Earths Limited ("IonicRE" or "The Company") (ASX: IXR) is pleased to advise on the progress at the Makuutu Rare Earths Project ("Makuutu" or "the Project").

Makuutu is operated by Rwenzori Rare Metals Limited ("RRM"), a Ugandan company which is 51% owned by IonicRE presently, with the Company moving to 60% ownership on the completion of the Feasibility Study expected to be submitted to the Ugandan government at the end of October 2022.

### **Environmental and Social Impact Assessment (ESIA) Progress**

The detailed ESIA report was submitted to NEMA (National Environmental Management Authority) in December 2021. After a review by government stakeholders and respective authority, a public disclosure process was initiated in May 2022 with stakeholders providing feedback on the ESIA to NEMA.

Two public hearings were completed in early August 2022 in Bugweri and Mayuge Districts with significant turnout from NEMA, Ministry of Energy and Mineral Development (MEMD), government representatives, district leadership, local communities and stakeholders providing strong support for the Project. The total registered attendees at the hearings over the two days amounted to 3,800 persons which indicates a keen interest in the Project by the Ugandan community.

NEMA and MEMD are now working to complete final statutory requirements to evaluate the ESIA and provide a formal decision.

### **Resettlement Action Plan (RAP) Progress**

The process of developing the RAP commenced in January 2022 and has progressed with final studies due to be completed by the end of October 2022. The Resettlement Action Plan (RAP) will present the strategy to acquire land for the entire RL1693 over the life of the Project while ensuring that Project Affected Persons (PAPs), including vulnerable people, are not financially or socially disadvantaged.



**Figure 1: RRM CEO Mr Warren Tregurtha addressing the public hearings (left), with representations also provided from Mr Barirega Akankwasah, Executive Director, NEMA (right).**



**Figure 2: Stakeholder engagement was very strong, with strong support from Hon. Peter Lokeris Minister of State for Mineral Development (left) and local residents turning up in significant numbers (right).**

As of now, a process of stakeholder identification and engagement is in advanced stages of concluding the RAP development process. This process involves engaging directly affected PAPs, key village, sub county and district stakeholders throughout the three districts of Bugweri, Mayuge and Bugiri, plus national stakeholders.

All PAPs have been identified and the majority of their parcels of land mapped. Once the ESIA has been approved by NEMA and the MEMD, the Project will undertake a due diligence process of confirming the areas mapped as well as entering into MOU's with PAPs to support land access. The RAP studies are being finalised to support the MLA process.

### **Key Stakeholder Engagement**

Over the past two months, RRM has hosted key delegations from the Ugandan Parliament and Ministry in an ongoing show of support for Makuutu.

The Minister for Energy and Mineral Development, Rt. Hon. Ruth Nankabirwa Ssentamu with her delegation invited stakeholders including Project Area Members of Parliament, the District and sub-



county leadership of Bugweri, Mayuge, Bugiri and Iganga Districts, media fraternity, Non-Government Organisations, the Busoga Kingdom and Chiefdoms and communities. The engagements were initiated with the objective of demonstrating the position of the MEMD in support of the Project.

The support provided by MEMD through the visit affirmed the legal and procedural compliance of RRM in all its Project activities and emphasised the importance of the Makuutu Rare Earth Project, with a focus on the social benefits to the Busoga region and the government. In conclusion, Hon. Nankabirwa confirmed that the Project will be implemented following national laws, regulations and best practices to progressively develop the Busoga region through employment opportunities, enhancement of services (roads, power, health and education facilities), thus increasing household incomes of the communities, and promoting socio-economic development.

### **Geological Mapping of EL 00147 and EL00257**

RRM has completed geological mapping of its two exploration licenses, EL00147 in Kapyanga sub-county of the Bugiri district, and EL00257 in both Bulamagi and Nakigo sub-counties of the Iganga district. The overall objective of the activity was to establish areas which have potential to contain clays with ionic adsorbed REE. Once identified, such areas could be the focus of future exploration programs.

During the field exploration activity, community engagement and sensitisation was conducted to ensure correct information is disseminated across the affected communities with regards to the overall activity planned and potential timeframes for the development of Makuutu.

Environmental Impact Statements (EIS) for both EL00147 and EL00257 are being finalised for approval to commence the Phase 5 drilling programs. The EIS documents are expected to be shortly submitted to NEMA and the DGSM with expectation to commence the drill program in Q4 2022.



**Figure 3: Field mapping activity completed at exploration targets identified on EL00147 and EL00257.**

Authorised for release by the Board.

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**About Makuutu Rare Earths Project**

The Makuutu Rare Earths Project is an ionic adsorption clay (IAC) hosted rare earth element (REE) deposit located 120 km east of Kampala in Uganda and is well serviced by existing high quality infrastructure including roads, rail, power infrastructure and cell communications. The installed infrastructure is illustrated in Figure 4.

The deposit stretches 37 km in length and has demonstrated potential for a long life, low-cost capital source of magnet and heavy REEs. These IAC deposits are prevalent in southern China which have been the source of the world's lowest cost magnet and heavy REE production, however these deposits are gradually being exhausted and Makuutu represents one of only a handful of such deposits outside of southern China.

The Makuutu deposit is shallow, with less than 3 m of cover over a 9 m average thickness clay and saprolite zone which results in low-cost bulk mining methods with low strip ratio. A maximum thickness of 28.5 m has been identified at Makuutu. Processing is via simple acidified salt desorption heap leaching, breaking the chemical ionic bond which washes the rare earths (in a chemical form) from the ore into a pregnant leach solution (PLS). The PLS is concentrated up using membrane technology, from which the rare earths are precipitated as a mixed rare earth carbonate product; a product which attracts both a higher payability and achieves a high basket price due to the dominant high value magnet and heavy rare earths which make up over 70% of the product basket.

The Project has the potential of generating a high margin product with an operation life exceeding 27 years. The Project is also prospective for a low-cost Scandium co-product.

**Existing Infrastructure**

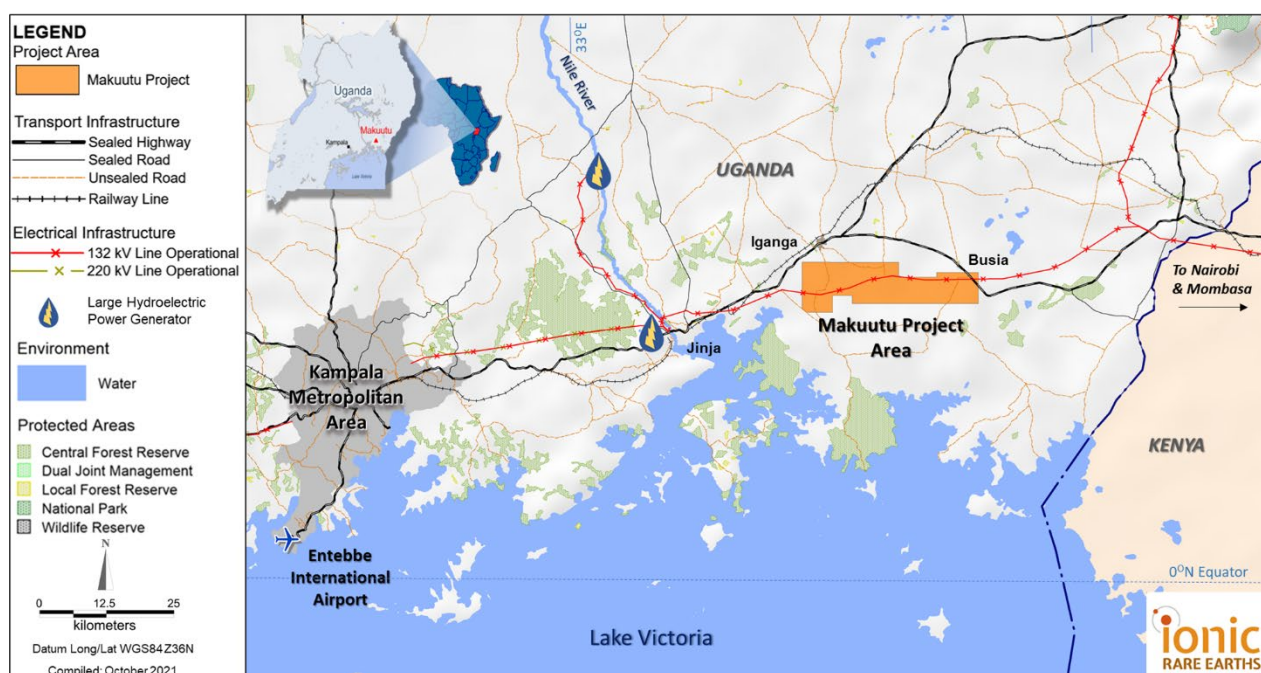
One of the Makuutu Rare Earths Project's competitive advantages is its proximity to existing infrastructure. The Makuutu site is approximately 10km from Highway 109 which is a sealed bitumen road connecting to Kampala, to Kenya and on to the Port of Mombasa. All weather access roads connecting the site to the adjacent sealed bitumen highway are already existing. A rail line lies within 10 kilometres north of the Makuutu site near the town of Iganga. There are four hydroelectric power plants located within 65 km of the project area, with total installed generating capacity of approximately 810 MW, providing an abundant supply of cheap power to the Project.

Water will be sourced at the project by harvesting water from the Makuutu site, given the Project location in a positive rainfall environment, and a net positive process water balance will require membrane processes to be used to manage site discharge water for reagent recovery. Excess water

management will be a key focus of the Project to ensure environmental standards are met and reagent consumption is minimised.

A workforce of semi-skilled and artisanal workers is available in nearby towns and population centres. The closest major population centre is Iganga, which has a population of 50,000. The town of Mayuge is approximately 10 km from the Project site and the intent is to source local operations staff from the immediate districts and train staff accordingly. The operation is to be staffed by a residential workforce. No fly in – fly out is envisaged, and the number of expatriate staff is intended to be low, and to be phased out over time.

Industrial facilities are available in the city of Jinja, approximately 40 km from the Project area. Additional industrial facilities are available on the outskirts of Kampala.



**Figure 4: Makuutu Rare Earths Project Location with major existing infrastructure**

## Forward Looking Statements

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