15 December 2023

MAKUUTU DEMONSTRATION PLANT EQUIPMENT INSTALL AND BULK SAMPLE COLLECTION COMMENCED

- **Construction of technical facility nearing completion with off-site testing of metallurgical equipment underway prior to installation;**
- **Makuutu Demonstration Plant to validate test work and provide the strong basis for grade control, mine design, material handling, metallurgical reconciliation, and construction while maximising inputs to the updated Makuutu DFS;**
- **Auger drilling of initial bulk sample underway to provide feed material for the operation desorption columns and cribs;**
- **All requirements for the large-scale mining license application met, verification results (conducted by the DGSM) to be sent to the Minister of Minerals and Energy (MEMD) in order to recommend awarding of Licence; and**
- **Makuutu's basket contains 71% magnet and heavy rare earths content, and is one of the most advanced heavy rare earth projects globally available as a source for new supply chains emerging across Europe, the US, and Asia.**

Ionic Rare Earths Limited ("IonicRE" or "the Company") (ASX: IXR) is pleased to advise progress in the construction of the technical facility and Demonstration Plant at the Makuutu Rare Earths Project ("Makuutu") in Uganda, through local Ugandan operating entity Rwenzori Rare Metals Limited ("RRM").

The Makuutu Demonstration Plant technical facility will aim to further optimise metallurgical test work and provide further technical validation basis for grade control, mine design, material handling, metallurgical reconciliation, and construction activity whilst also supporting Project financing and strategic partner activity.

At the technical facility, desorption columns have undergone water commissioning in order to pre-test the ore before commencement of test work. Irrigation tests have also been undertaken to ensure the desorption processes operate as designed.

The inspection of in-country manufactured equipment is currently underway at vendor premises to ensure safety and functionality prior to taking receipt of the equipment, with the delivery to site expected this week.

Figure 1: Inspection of constructed desorption columns.

Figure 2: Water commissioning of desorption columns.

Ionic Rare Earths Limited, Level 5 South, 459 Collins Street, Melbourne VIC 3000 T+61 3 9776 3434 E admin@ionicre.com

The crib shells, which are to be used to accommodate the stacked ore for desorption tests have been constructed and are currently in the process of being assembled for commissioning.

Figure 3: Crib shells which are being assembled for commissioning.

In addition to the technical facility works at the Demonstration plant, an auger drill has been mobilised to the first test mine pit site (see Figure 5), where bulk sample collection drilling has commenced in order to provide test material for Makuutu test facility.

Ionic Rare Earths' Managing Director Mr Tim Harrison commented;

> *"The progress at the Demonstration plant site over the last 2 weeks has been significant with all the elements of having an operational demonstration plant coming together. These works are essential to validating our mine development plan and generating mixed rare earth carbonate (MREC) sample for off-take to our potential partners in Q1 2024. This work program will also demonstrate our position as a strategic resource for near-term development and a secure, long-term supply of magnet and heavy rare earth oxide (REO)."*
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> *"Our focus on the delivery of the Makuutu Heavy Rare Earths Project in Uganda positions us to provide a secure, sustainable, and traceable supply of magnet and heavy REOs into new supply chains forming. Along with our Ionic Technologies Belfast recycling facility, Makuutu is key to us harnessing our technology to accelerate mining, refining, and recycling of magnets and heavy rare earths that are critical for the energy transition, advanced manufacturing, and defence".*

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Figure 4: Auger drill mobilised to test site to collect bulk sample test material.

Figure 5: Bulk sample being collected for desorption column and crib metallurgical test work program.

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UPDATE ON STAGE ONE MINING LICENCE APPLICATION (TN03834)

The Company, through RRM, has met all the requirements for a large-scale Mining Licence to be awarded. Verification work undertaken by the Directorate for Geological Survey and Mines (DGSM) has confirmed this.

The final administrative processes require that the above-mentioned verification results be sent to Ugandan Ministry of Energy and Mineral Development (MEMD) for review as well as the recommendation to award a large-scale Mining Licence. The Company is directly engaged with the MEMD and is eagerly awaiting the award, and will communicate the same once the licence has been issued.

The Makuutu Heavy Rare Earths Project has the Government's full support and is set to become Uganda's flagship mine (refer also to IXR ASX release on the 11th of September for more detail).

Authorised for release by the Board.

For enquiries, contact:

For Company	For Media	For Investor Relations
Tim Harrison	Nigel Kassulke	Peter Taylor
Ionic Rare Earths Limited	Teneo	NWR Communications
investors@ionicre.com	Nigel.Kassulke@Teneo.com	peter@nwrcommunications.com.au
+61 (3) 9776 3434	+61 (0) 407 904 874	+61 (0) 412 036 231

ABOUT IONIC RARE EARTHS LTD

Ionic Rare Earths Limited (ASX: IXR or IonicRE) is set to become a miner, refiner and recycler of sustainable and traceable magnet and heavy rare earths needed to develop net-zero carbon technologies.

The Makuutu Rare Earths Project in Uganda, 60% owned by IonicRE, moving to 94% ownership in Q1 2024, is well-supported by existing tier-one infrastructure and is on track to become a long-life, low Capex, scalable and sustainable supplier of high-value magnet and heavy rare earths oxides (REO). In March 2023, IonicRE announced a positive stage 1 Definitive Feasibility Study (DFS) for the first of six (6) tenements to progress to a Mining Licence Application (MLA) which is pending in Uganda. The Makuutu Stage 1 DFS defined a 35-year life initial project producing a 71% rich magnet and heavy rare earth carbonate (MREC) product basket and the potential for significant potential and scale up through additional tenements.

Ionic Technologies International Limited ("Ionic Technologies"), a 100% owned UK subsidiary acquired in 2022, has developed processes for the separation and recovery of rare earth elements (REE) from mining ore concentrates and recycled permanent magnets. Ionic Technologies is focusing on the commercialisation of the technology to achieve near complete extraction from end

of life / spent magnets and waste (swarf) to high value, separated and traceable magnet rare earth products with grades exceeding 99.9% rare earth oxide (REO). In June 2023, Ionic Technologies announced initial production of high purity magnet REOs from its newly commissioned Demonstration Plant. This technology and operating Demonstration Plant provides first mover advantage in the industrial elemental extraction of REEs from recycling, enabling near term magnet REO production capability to support demand for early-stage alternative supply chains. In September 2023, Ionic Technologies announced with the support of the UK government, collaboration partnerships to build a domestic UK supply chain, from recycled REOs to metals, alloys and magnets and supplying UK based electric vehicles (EV) manufacturing, with potential to replicate across other key markets.

As part of an integrated strategy to create downstream supply chain value, IonicRE is also evaluating the development of its own magnet and heavy rare earth refinery, or hub, to separate the unique and high value magnet and heavy rare earths dominant Makuutu basket into the full spectrum of REOs plus scandium.

This integrated strategy completes the circular economy of sustainable and traceable magnet and heavy rare earth products needed to supply applications critical to EVs, offshore wind turbines, communication, and key defence initiatives.

IonicRE is a Participant of the UN Global Compact and adheres to its principles-based approach to responsible business.

Forward Looking Statements

This announcement has been prepared by Ionic Rare Earths Limited and may include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Ionic Rare Earths Limited. Actual values, results or events may be materially different to those expressed or implied in this document. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward-looking statements in this document speak only at the date of issue of this document. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Ionic Rare Earths Limited does not undertake any obligation to update or revise any information or any of the forward-looking statements in this document or any changes in events, conditions, or circumstances on which any such forward looking statement is based.

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