



ASX Announcement

16 September 2024

COMPANY UPDATE

- **Magnet Recycling Feasibility study nearing completion, highlighting potential for low-cost operation producing high-margin heavy REOs for Western market**
- **Cost cuts implemented to reduce operational expenses by up to 60% per month, extending financial runway**
- **R&D Tax Incentive rebate received of \$1.2M, with additional \$0.5M pending**
- **New research published on IXR following analysts' visit to Belfast Demonstration Plant; site identified in Belfast Harbour for commercial-scale facility**

Ionic Rare Earths Limited (“IonicRE” or “the Company”) (ASX: IXR) has further advanced the development of sustainable, traceable and sovereign magnet rare earth supply chains, focused on its wholly owned subsidiary, Ionic Technologies’ Magnet Recycling Demonstration Plant in Belfast, UK.

IonicRE is a first mover in this industry, with the Company set to become the first major producer in the Western world of recycled separated magnet rare earth oxides (REOs), creating an ex-China supply amid rising demand from the world’s clean energy transition.

Magnet Recycling Feasibility Study nears completion

A Feasibility Study for magnet recycling at Ionic Technologies’ Belfast plant is in its final stages, with IonicRE targeting development of a plant capable of processing 1,200 tonnes of magnet feed material, producing around 400 tonnes of separated magnet REOs.

The magnet feed material will consist of end-of-life magnets from industrial use and waste materials generated in the magnet production cycle (swarf). Significantly, Ionic Technologies has access to considerable quantities of this material in Belfast.

The Feasibility Study has identified a potential processing cost range of around US\$25-30 per kilogram REO for recycling and selling prices in the forecast range of US\$80-\$100/kg for NdPr oxide, US\$500-\$600/kg for Dy oxide and \$1,200-\$1,500/kg for Tb oxide by 2030 to be produced by Ionic Technologies.



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Substantial feedstock supplies are available from the UK and European Union (EU), with this circular permanent magnet supply chain offering excellent sustainability metrics and material traceability, in addition to high purity. It is also expected to attract premium pricing as governments and OEMs increasingly put priority on security of supply.

The EU has set a target for 25% of its critical minerals consumption to come from recycling by 2030 compared to the current level of around 1%, and together with the UK there is a significant market on IonicRE's doorstep.

Commercially, this has been shown with the signing of a MOU with UK-based Less Common Metals which will expand recycling opportunities in the UK and USA, including IonicRE's collaboration with Ford Motor Company to support its EV drive train production in England.

A site for the new commercial magnet recycling plant has already been identified in Belfast Harbour, with the planning permission and environmental permitting processes well advanced. Notably, there are around 8.7 GW of installed wind turbines located within 240 kilometres of Belfast, with the local government focused on developing a clean energy hub.

IonicRE's Managing Director, Tim Harrison commented: *"The Feasibility Study is an important tool in IonicRE's engagement with the UK Government and other stakeholders, with its completion set to pave the way for offtake contracts, construction funding and an FID for the commercial plant. Pending the successful advancement of the FID, IonicRE anticipates commercial-scale production as early as 2026, with capex likely to be relatively low for a plant of this scale."*

"The Belfast plant will serve as a blueprint as IonicRE expands its recycling business to other sites globally, including for the Viridis JV in Brazil and other potential licensing and joint venture opportunities in Europe and North America."

IonicRE's Executive Chairman, Brett Lynch said: *"This focus on the magnet recycling technology offers the best pathway to shareholder returns, as IonicRE 'pioneers profit' in this sector by unlocking a new supply chain with customers in the West seeking an alternative, secure and traceable supply."*

"The West consumes some 50% of the world's magnets, yet only produces 1%, demonstrating the availability of used magnets in the West which IXR can potentially access. This eliminates the need for these magnets to be disposed of unsustainably or alternatively recycled in China."

He added: "The Feasibility Study is showing exceptional cost performance on recycling, with a relatively low capex and profitable operation to be developed that can sell to customers where the focus is on supply security. These customers are willing to support development of such a supply chain and pay a premium for this product, allowing Ionic to circumvent current industry dynamics dominated by China."

"This affords IonicRE a tremendous opportunity to seize industry leadership as we de-risk our Company through de-mining."

Cost efficiencies identified

IonicRE is extremely conscious of the need to protect and preserve shareholder capital in a volatile and challenging market for small cap companies.

The Board has now identified various cost efficiencies which when implemented will reduce operating expenditure by 60% per month. These include a reduction in executive remuneration, headcount reduction, and lower operating and capital costs after the completion of demonstration plant trials at Ionic Technologies and the Makuutu Heavy Rare Earths Project.

These cost efficiencies will ensure IonicRE is in the best possible position to advance key project development activities to increase shareholder value, positioning the Company to benefit significantly from the achievement of further milestones.

IonicRE has also secured an R&D Tax Incentive payment of \$1.2 million with another \$500,000 pending for a total of \$1.7 million, which together with the identified cost savings ensures the Company has sufficient funding for its near-term objectives.

Mr Harrison added: *“The recent uptick in rare earth prices and Chinese closures of uneconomical critical minerals mines may mark a turning point in market sentiment as the industry rebalances.*

“In the meantime, IonicRE is focused on managing our cash flow carefully, balancing developing our technology base with minimising expenditure to avoid unnecessary shareholder dilution.

“With the major recent capital projects now completed, we are focused on maintaining cash-flow stability, with everyone including the executive team contributing to this effort for the benefit of shareholders.”

New investor research on IXR has been published on the Company’s website (<https://ionicre.com/investors/research/>) following a recent analyst visit to the Belfast facility. IonicRE has also released a number of videos from this event, as featured in this report: <https://www.cruxinvestor.com/posts/ionic-rare-earths-visiting-the-magnet-recycling-plant-in-belfast#pioneering-rare-earth-recycling-for-a-sustainable-future>

Authorised for release by the Board.

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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.

Ionic Technologies International Limited (“Ionic Technologies”), a 100% owned UK subsidiary, 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 and moved to continuous production in March 2024, providing a first mover advantage in the industrial elemental extraction of REEs from recycling. In September 2023, Ionic Technologies announced collaboration partnerships with Ford Technologies, Less Common Metals (LCM) and the British Geological Survey (BGS) 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.

The Makuutu Rare Earths Project in Uganda, 60% owned by IonicRE, moving to 94% ownership) 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 REO. In March 2023, IonicRE announced a positive stage 1 Definitive Feasibility Study (DFS) for the first of six tenements to progress to a mining licence, which was awarded in January 2024. Makuutu is now producing mixed rare earth carbonate (MREC) from a Demonstration Plant on site to advance offtake negotiations.

IonicRE has also executed a transformational 50/50 joint venture refinery and magnet recycling facility in Brazil with Viridis Mining and Minerals Limited (ASX: VMM) to separate high value magnet and heavy rare earths from the Colossus Project’s full spectrum of REOs.

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.

For more information about IonicRE and its operations, please visit www.ionicre.com.

Forward Looking Statements

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