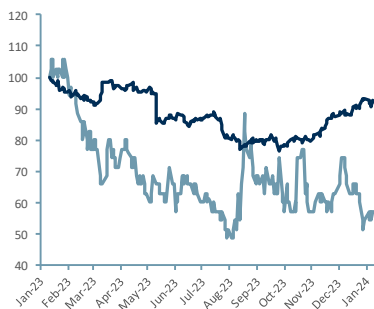


POST RESULTS

VALUE RANGE

0.090 – 0.099



IXR (lighter line) vs. ASX market price relative

Thursday, 21 March 2024

Intrinsic Price (AUD)	0.094
Value Range Low (AUD)	0.090
Value Range High (AUD)	0.099
Implied MCAP (m)	407.27
Implied EV (m)	407.27
XASX	IXR
Financial YE	30-Jun
Currency	AUD

Business Activity

Mining E&P

Key Metrics

Close Price (AUD)	0.019
MCAP (m)	86.17
Net Debt (Cash) (m)	-11.13
EV (m)	75.04
52 Wk Hi	0.037
52 Wk Lo	0.016

Key Ratios

(Net Cash) / Shareholder Equity %	-12.91%
FX Rate AUD/USD	0.65

Mining Sector Research

ASX Market Index

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Ionic Rare Earths

REEs + Circular Economy – Beats Expectations

Ionic Rare Earths Ltd (ASX:IXR) is a rare earths mining explorer (Uganda) and REO magnet recycling company (Belfast, UK). We have excluded Belfast recycling from our valuation at this stage. **IXR is currently ahead of its most recently published schedule.** Catalysts since ACF's [IXR Update note published on 06 Feb 2024](#) include 1st mixed rare earth concentrate (MREC) produced, Makuutu's exploration target upgrade by 40%, and Belfast plant produces its 1st high purity terbium oxide (Tb₄O₇). In our previous note we raised our IXR valuation range by 26% to A\$0.090-0.099 vs A\$0.075 p/s, driven by IXR's Makuutu ownership increase to 94% up from 60%. IXR's flagship Makuutu REE project contains 71% magnet and HREs and contributes to de-risking of global supply chains. IXR's Belfast demo plant contributes to a circular economy.

- Makuutu MREC production started 12 March 2024;
- P5 MRE potential of +532 Mt @ 640 ppm TREO (included in NPV);
- IonicTech Belfast magnet recycling plant produces its first Tb₄O₇;
- Exploration target revised to 285-766 Mt @ 400-700 ppm TREO;
- Cash & CE 1H24A (31 Dec 2023) A\$ 4.5m.

A\$ (m)	MCAP	EV	RoA %	RoE %	NCO	Levered FCF
2024	407.27	407.27	-11.77%	-18.56%	-11.66	-8.49

Multiples	EV/ Revs	P/ S	Fwd PE	BV/ Share	P/ B	Current
2024	N/A	N/A	N/A	0.01	1.97	16.05

Investment Case

We have raised our IXR valuation range 26% after several milestones/catalysts have been reached.

IXR value range raised to A\$ 0.0897 to A\$ 0.0991 p/s suggesting 348% - 396% (~2.5x-3x) upside.

IXR is a rare earths explorer and permanent magnet recycling business for clean energy technologies, e.g. wind turbines, electric vehicles (EVs). IXR has a low-capital cost, high value rare earths mining project that is a global supply chain strategic asset – The Makuutu project provides an advanced stage, low capital cost, high value heavy rare earths development opportunity. Makuutu’s geology is a key advantage – Ionic Adsorption Clay (IAC) mineralization.

Makuutu’s geology is similar to projects in Southern China and Myanmar where the lowest cost to extract/most readily available sources of Heavy Rare Earth Oxides (HREO) are mined. ~98% of the global supply of HREO originates from clay-hosted mines. Although China dominates the REE market and REE prices, IXR has a **competitive de-risking advantage given its plan to create a circular economy from REE mining to magnet recycling.**

Advancing Makuutu: We have valued Makuutu based on the latest upgrade potential of I+I resource 532 Mt @640 ppm including the Probable reserve of 172.9 Mt @ 848 ppm. Since our [initiation note 05 Dec 2023](#), IXR has increased ownership of Makuutu to 94% from 60%.

First MREC produced in 1Q24 and first production remains on track for 2026E. Existing mineral resource estimate (MRE) at Makuutu remains unchanged at I+I 532 Mt @ 640 ppm TREO, whereas the exploration target has increased by 40% to 285-766 Mt @ 400-700 ppm TREO.

Ionic Technology is the key- IXR is in a strong position to become a long-term sustainable magnet and heavy REO producer whilst overcoming the tech complexities in the market.

Circular Economy: Ionic Technologies Magnet Recycling Demonstration Plant in Belfast, UK has begun 24/7 operations and has already processed 2.7 tonnes of end of life (EOL) permanent magnets (excluded from our valuation). IXR has partnered with **alloy and magnet manufacturers** as well as **OEMs**, which signals potential for a shift in REE supply chain dominance away from China.

Catalysts

Final Investment Decision (FID) 2H24E; Increased MRE; Long run rising critical metals prices; PFS for Belfast demo plant 2Q24E. FS for Belfast commercial plant 3Q24E; Evidence of growth in permanent magnet recycling and a global circular economy for REEs.

Share Price History	No. of Shares in issue	Fully diluted
NoSh (m)	4,308.29	4,314.99
Implied Intrinsic Price	0.0945	0.0944
Value Range Low	0.0898	0.0897
Value Range High	0.0993	0.0991
XASX	IXR	
Financial YE	30-Jun	
Reporting Currency	AUD	
NoSh (m)		4,308.29
NoSh (m) expected dilution (Exp D)		4,308.29
NoSh (m) full dilution (FD)		0.00
Key Metrics	A\$	adj.
MCAP (m)	86.2	86.2
Net Debt (Cash) (m)	(11.1)	(11.1)
EV (m)	75.0	75.0
52 Wk Hi	0.04	0.04
52 Wk Lo	0.02	0.02
Free Float	26%	26%
*Key Metrics FCF adj.	2026E	2030E
CPS (AUD)	0.01	0.01
CPS (Exp D) (AUD)	0.01	0.01
CPS (FD) (AUD)	0.01	0.01
P/CPS	1.56x	2.63x
P/CPS (Exp D)	1.56x	2.63x
P/CPS (FD)	1.56x	2.63x

1H24A Results - Beats expectations

IXR advances its Makuutu project to commercial production in 2026E.

Ionic Rare Earth's strategy is to advance its Makuutu project to commercial production in 2026E and for its Belfast recycling plant to begin operating 24/7. Despite the industry challenges created by China's demand dominance and inevitable REE price manipulation, we assess that IXR has the potential to change the industry vertical status quo and become a key player in Western markets.

Significant milestone – 1st Mixed Rare Earth Carbonate (MREC) production.

IXR 1H24A highlights:

- Ionic Technologies Belfast plant has successfully produced high purity terbium oxide (Tb₄O₇) – capacity of ~2.8kg of greater than 99.5% purity (ASX announcement 19 March 2024).
- Separated magnet REO production expected at the Belfast demo plant end Mar 2024E.
- 1st mixed rare earth carbonate was produced (ASX announcement 13 March 2024).
- IXR has upgraded/increased its exploration target by 40% following the maiden Rotary Air Blast (RAB) drilling EL 00257 to 285-766 Mt @ 400-700 ppm TREO (ASX announcement 27 February 2024).

Significant milestone – Ionic Technologies produces its 1st high purity terbium oxide.

Ionic Rare Earth's cash and cash equivalents (C&CE) at A\$ 9.1m YE24A is below our forecasted A\$ 28.6m. We believe this is driven by a higher cash burn rate (accelerated CAPEX and OPEX) implemented to achieve certain milestones earlier. ACF has taken a more conservative approach in its existing valuation of the company given that Makuutu is still in the exploration phase – We currently expect Makuutu to reach full production in 2026E. Note that to be conservative, the Belfast recycling plant has been excluded from our valuation. **We will review our cost estimates before the end of June 2024; the outcome of which will be dependent on IXR activity.**

Catalysts impacting our valuation range and C&CE forecasts include the Belfast plant PFS expected 2Q24E and the Belfast FS, expected 3Q24E – Investors should note that our C&CE forecasts are influenced by a number of factors including rate of actual capex and funds raised. If capex is accelerated in 2024 IXR will necessarily have C&CE below our forecast number, and any acceleration will equally be reflected in a higher cash flow burn for the forecast period in question.

China currently dominates the global REE mining, production and consumption markets accounting for ~70% (2022A) of all such activities. IXR's geology – its Ionic Adsorption Clay (IAC) – is similar to that found in Southern China giving IXR a key advantage. However, China's dominance of the market also conveys REE pricing power. REE prices have contracted during 2023 vs. 2022 (y/y decrease of ~65% in the REE CNY/t price - Trading Economics). In order to compete with China supply, smaller REE explorers in the Western market will need to ramp up production to provide a credible supply chain alternative to China. Alternatively, if demand for China origin REEs was somehow to decline, without an increase in alternate supply, REE prices would likely skyrocket. REE mining time to production is on average 10-15 years. We assess that governments outside China are on the 'policy change runway'.

Financial Projections

We have not modelled the magnet recycling demo plant in Belfast. It is excluded from our valuation and has significant upside potential. At the moment the Belfast recycling project is not Rev/CF generating – it is a de-risking process aimed at producing material for the supply chain. We plan to model the recycling project and establish valuation potential as milestones are met, which we currently expect to start in 2024.

Revenue decline is due to several factors: peak production is expected in 2028 and then declines thereafter, REO prices and grades fluctuate over the LOM. Furthermore, current revenues are based on the DFS MRE of 172.9 Mt and does not include the latest upgrade potential of 532 Mt.

Revenues may change in further notes as we include the MRE upgrade and other milestones in these projections/metrics tables.

We have nevertheless imputed a conservative contribution to the NPV in our valuation from the MRE upgrade to provide an idea of potential.

Currently IXR is non-revenue generating.

P&L A\$ (m)	2026E	2027E	2028E	2029E	2030E
Revs	102	92	90	81	79
gr%		-9%	-2%	-10%	-2%
Total Expenses	-48	-48	-47	-47	-47
EBITDA	54	44	43	33	32
% Revs	53%	47%	48%	41%	41%
FV adj.	0	1	2	3	4
% Revs	N/M	0	0	0	0
EBIT	54.2	43.9	43.4	33.5	32.2
EBT	54	44	43	34	32
% Revs	NM	NM	NM	NM	NM
ETR	0	0	0	0	0
NI	56	46	46	36	34
% Revs	NM	NM	NM	NM	NM
Adj EPS (p)	0.8	0.6	0.6	0.5	0.5
Basic EPS (p)	0.013	0.011	0.011	0.008	0.008
Diluted EPS (p)	0.013	0.011	0.011	0.008	0.008
Balance Sheet A\$ (m)	2026E	2027E	2028E	2029E	2030E
PP&E	9	12	14	16	19
Total Fixed Assets	80	97	113	129	146
Current assets	71	64	63	57	55
Cash	-40	8	51	89	121
Total Current Assets	31	73	114	146	176
Total Assets	111	169	227	275	322
Creditors	27	25	24	22	21
Other liabilities	0	0	0	0	0
Loans	0	0	0	0	0
Total Liabilities	27	25	24	22	21
Net Assets	84	144	203	253	300
Share Capital	78	78	78	78	78
Accum. Profit/(loss)	0	0	0	0	0
Total Equity	84	144	203	253	300
Total Equity & Liabilities	111	169	227	275	322
Basic NAV (p)	2	3	5	6	7
Diluted NAV (p)	28	48	67	84	99
Cash Flow A\$ (m)	2026E	2027E	2028E	2029E	2030E
EBT Profit/(loss)	54	44	43	34	32
Finance costs	0	0	0	0	0
FV adj. + Other adj.	0	1	2	3	4
Cash Taxes	0	0	0	0	0
WCap change	-71	7	1	7	1
Net CFO	-15	52	47	42	36

Sources: ACF Equity Research Estimates; Companies reports.

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Is the research potentially cross subsidized by other investment banking services.	NO	<input checked="" type="checkbox"/>
Is the research potentially or actually paid for in shares or other financial instruments.	NO	<input checked="" type="checkbox"/>
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Christopher Nicholson
 Managing Director
 Head of Research
 ACF Equity Research Ltd

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