

ASX: ABX

#### **INVESTOR WEBINAR PRESENTATION**

ABx Group (ASX: ABX) ("ABx" or "the Company") is pleased to announce its participation in the ShareCafe Small Cap "Hidden Gems" Webinar, to be held Friday 10<sup>th</sup> of May 2024 from 12:30pm AEST / 10:30am AWST.

ABx Group Managing Director and CEO Dr Mark Cooksey will provide an overview of the Company, which recently announced an updated rare earth resource estimation of 89 million tonnes for its Deep Leads – Rubble Mound and Wind Break deposits<sup>1</sup>.

The Company is also progressing its 83%-owned subsidiary ALCORE, which is successfully producing hydrogen fluoride from aluminium smelter waste, which is envisioned to be further processed into high-value aluminium fluoride via an existing commercial process.

This webinar can be viewed live via Zoom and will provide viewers the opportunity to hear from, and engage with, a range of ASX-listed leading micro/mid cap companies.

To access further details of the event and to register at no cost, please copy and paste the following link into your internet browser:

https://us02web.zoom.us/webinar/register/WN\_ImdOpYU1TjupRmzfoNyNng

A recorded copy of the webinar will be made available following the event.

This announcement is approved for release by Mark Cooksey, Managing Director and CEO.

#### For further information please contact:

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<sup>1</sup> ASX Announcement 2 May 2024



#### **About ABx Group Limited**

ABx Group (ABX) is a uniquely positioned, high-tech Australian company delivering materials for a cleaner future.

The two current areas of focus are:

- Creation of an ionic adsorption clay rare earth project in northern Tasmania
- Establishment of a plant to produce hydrogen fluoride and aluminium fluoride from recycled industrial waste, to replace imports (ALCORE)

There is also a legacy business:

• Mining and enhancing bauxite resources for cement, aluminium and fertiliser production

ABx endorses best practices on agricultural land, strives to leave land and environment better than we find it. We only operate where welcomed.

#### **Disclaimer Regarding Forward Looking Statements**

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance, or achievements to differ materially from the expectations described in such forward-looking statements.

ABx does not give any assurance that the anticipated results, performance, or achievements expressed or implied in those forward-looking statements will be achieved.



#### (ASX:ABX)

# **Delivering Materials for a Cleaner Future**

10 May 2024

# Disclaimer

This presentation has been prepared by ABx Group Limited ACN 139 494 885 ("ABx" or the "Company"). It should not be considered as an offer or invitation to subscribe for or purchase any securities in the Company or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this presentation.

This presentation contains forecasts and forward looking information. Such forecasts and information are not a guarantee of future performance, involving unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. ABx has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this presentation. Accordingly, to the maximum extent permitted by applicable laws, ABx makes no representation and can give no assurance, guarantee or warranty, express or other implied, as to, and take no responsibility and assume no liability for, the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission, from any information, statement or opinion contained in this presentation.

You should not act or refrain from acting in reliance on this presentation material. This overview of ABx does not purport to be all inclusive or to contain all information which its recipients may require in order to make an informed assessment of the Company's prospects. You should conduct your own investigation and perform your own analysis in order to make an informed assessment of the company's prospects. You should also conduct your own investigation and perform your own analysis in order to satisfy yourself as to the accuracy and completeness of the information, statements and opinions contained in this presentation and making any investment decision.

Prices for aluminium fluoride (AIF<sub>3</sub>) were sourced from Asian Metals, China Customs and verified by comparison with prices from Bloomberg. The price actually achieved will depend upon market conditions at the time of sale.

#### **Competent Person Statement**

The information in this report that relate to Exploration Information and Mineral Resources are based on information compiled by Ian Levy who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Levy is a qualified geologist and a director of ABx Group Limited.

Mr Levy has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Levy has consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.



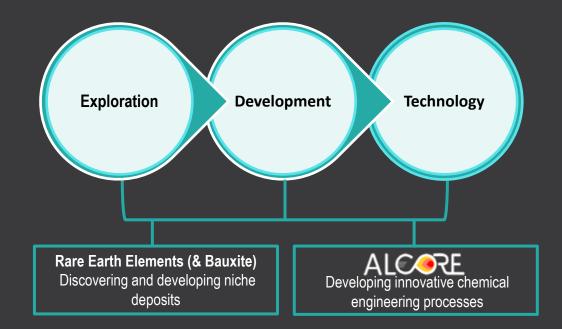


#### **Delivering materials for a cleaner future**

- Creation of an ionic adsorption clay rare earth project in northern Tasmania
- Establishment of a plant to produce hydrogen fluoride and aluminium fluoride from recycled industrial waste, to replace imports (ALCORE)

#### Legacy business

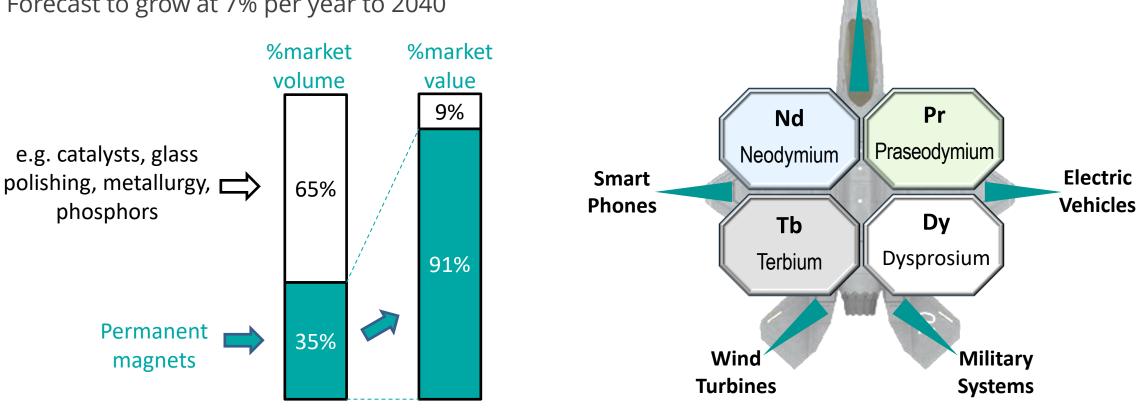
• Mining and enhancing bauxite resources for cement, aluminium and fertiliser production





## **Permanent magnet rare earths**

- Essential for electric vehicles and wind turbines
- Represent over 90% of value of rare earths consumption
- Forecast to grow at 7% per year to 2040 •



Super

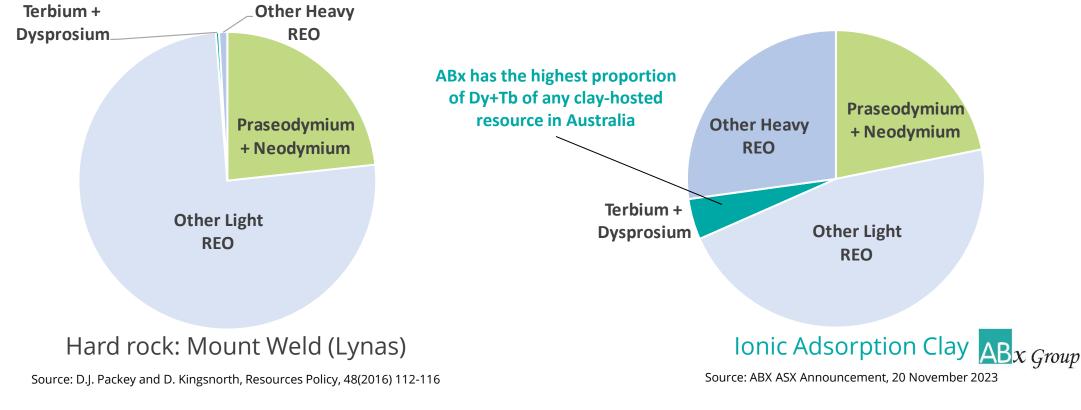
Magnets

Source: Rare Earth Industry Association (https://www.global-reia.org/about-rare-earth/)



# Ionic adsorption clay (IAC) rare earth deposits

- Contain much higher proportion of higher value, heavy rare earths
- Historically only mined in southern China





# **Requirements for an ionic clay rare earth project**

### Mineral Resource

- Size
- Grade
- Mineralogy
- Strip ratio

#### Infrastructure

- Transport
- Water
- Energy

### Jurisdiction

- Regulatory approval
- Community support
- Government support
- Supply chain security

**Company Resources** 

- People
- Partnerships
- Finance
- Intellectual property



## ABx rare earth discoveries in Tasmania

# ABx is first company to discover rare earths in Tasmania

- Four discoveries spanning 100 km<sup>2</sup> <sup>(1)</sup>
- Newly granted tenements add over 450 km<sup>2</sup> <sup>(2)</sup>

Highest proportion of DyTb of any clayhosted resource in Australia<sup>3</sup>

Highest ionic component reported in Australia, comparable to operations in China<sup>4,5</sup>

AB<sub>x</sub> tenements EL7/2010 auncest EL9/2010 EL18/2014 EL10/2021 EL25/2022 EL27/2022 EL28/2022 Launceston Infrastructure Airport - Reilway Main Road Secondary Road NEW EL27/2022 NEW EL28/2022 20 km 10

Source: ABX ASX Announcement, 22 January 2024





## **Rare Earths Resource Estimate**

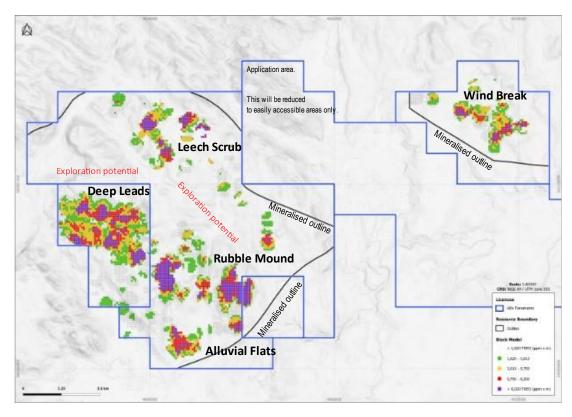
- Upgrade to 89 Mt announced May 2024<sup>1</sup>
- Over 10-fold increase in 12 months

Size	Cut-off (ppm	Mean TREO	Mean TREO-	DyTb <sup>3</sup>
	TREO-CeO <sub>2</sub> )	(ppm)	CeO <sub>2</sub> (ppm)	(%TREO)
89 Mt <sup>2</sup>	350	844	652	4.3%

Holes	Metres drilled	Metres assayed	From	To
drilled	(m)	(m)	(m)	(m)
1,077	9,742	3,843	4.2	12.0

# Resource based on only 29% of identified mineralised outline<sup>1</sup>

 $^1ABX$  ASX Announcement, 2 May 2024  $^241$  Mt inferred, 42 Mt indicated and 6 Mt measured  $^3DyTb$  =  $Dy_2O_3$  +  $Tb_4O_7$ 



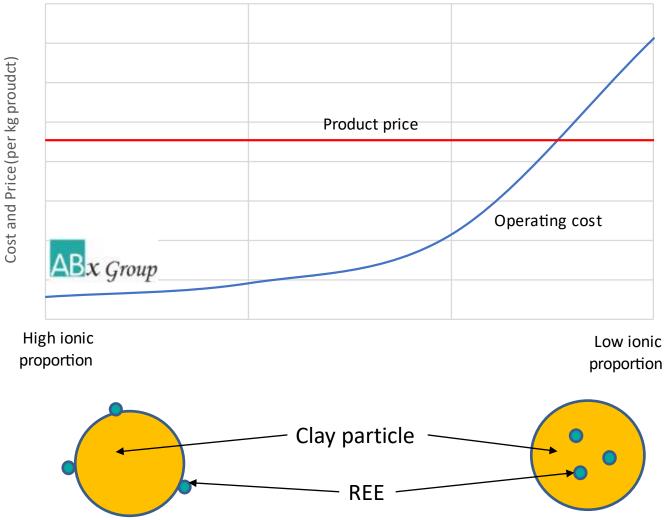
Source: ABX ASX Announcement, 2 May 2024





### Not all clays are created equal Ionic proportion is king

- Chart shows illustrative relationship between ionic proportion and operating cost
- For low ionic proportion, reagent costs alone can be higher than product price
- Position on cost curve heavily dependent on proportion of resource that is ionic
- Industry processing experts indicate that low-cost processing can only be achieved for resources with high ionic proportion





## Infrastructure

### Transport

- <20 km to major highway
- <100 km to deepwater Bell Bay port

### Labour

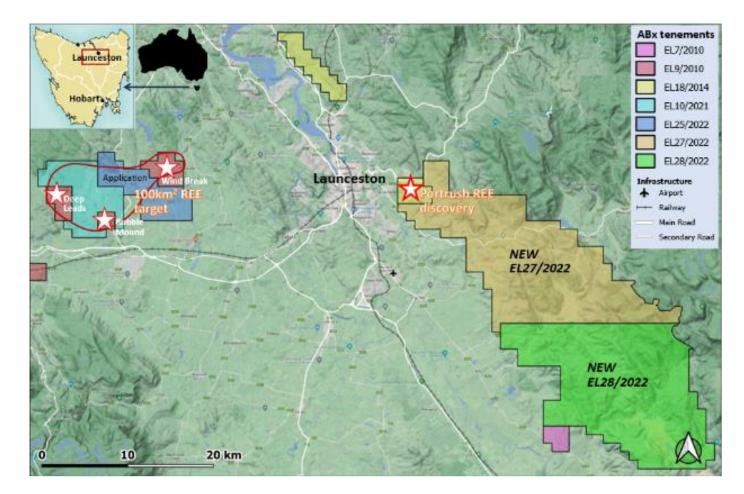
• <50 km to Launceston (pop 65,000)

### Water

• High availability in Tasmania

### Energy

Close to major transmission lines



Source: ABX ASX Announcement, 22 January 2024



# Jurisdiction

### Australia

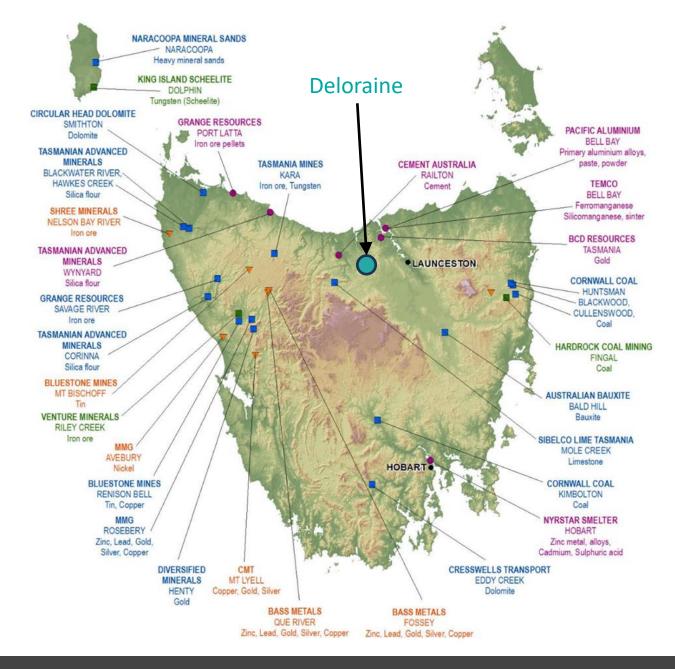
- NATO partner
- Major mining jurisdiction

### Tasmania

- Extensive mining history: tin, copper, zinc, lead, gold
- Supportive regulatory environment

### **Deloraine region**

Mostly commercial forest plantations





### Resources People

- High calibre geologists and engineers, with experience in resource development, process development, and production
- ABx active in Tasmania since 2010
  - Excellent reputation with landholders, regulators and government
  - Mined bauxite 2015 to 2020, now fully rehabilitated
  - Mine lease application in progress for second bauxite mine

### lan Levy (geology)



- 30 years of senior management and geological experience with multiple commodities, including at WMC
- Previously CEO of Allegiance Mining and Director of Gloucester Coal
- Member of JORC for 11 years (4 years as Vice Chairman) and Federal President, Australian Institute of Geoscientists

### Dr Mark Cooksey (chemical engineering)



- More than 20 years with Rio Tinto and CSIRO
- Significant experience in developing and commercialising new processes in minerals and metals industry
- PhD in Chemical & Materials Engineering

### Dr Daniel Jewell (chemical engineering)



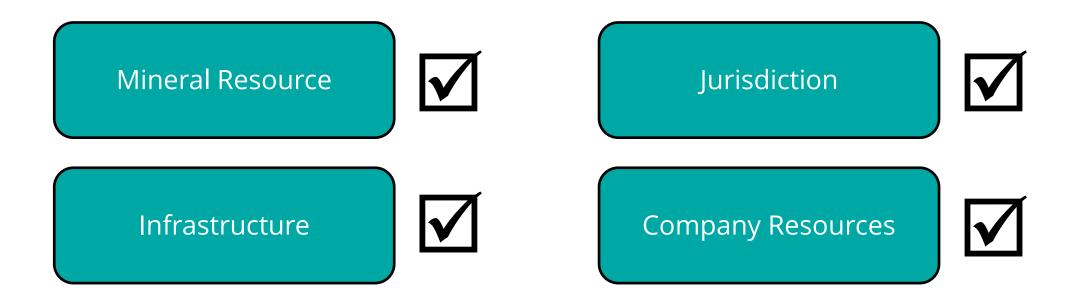
- 15 years in senior technical roles including at the University of Cambridge, CSIRO, and in industry
- Strong focus on extractive scale-up technologies for metal production for titanium, magnesium, & lithium
- PhD in Chemical Engineering



# ABx ticks all the boxes for an ionic clay rare earth project

Highest proportion of DyTb of any clay-hosted resource in Australia

Highest ionic proportion reported in Australia, comparable to operations in China





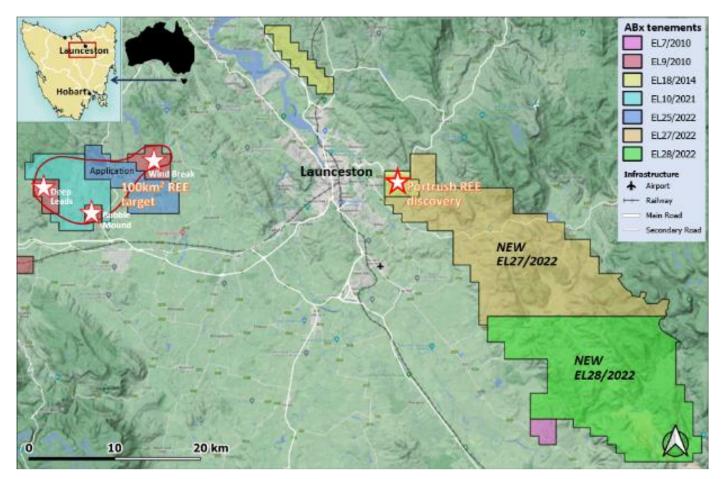
## **ABx rare earths strategy**

#### Strategy

- Rapidly develop low-cost production of mixed rare earth carbonate (MREC)
- Sell MREC to third party refinery
- We operate only where welcomed

#### Plan

- Laboratory and pilot plant studies
- Estimate CAPEX and OPEX
- Customer engagement
- Exploration technology
- Exploration campaigns



Source: ABX ASX Announcement, 27 September 2023





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