

### Disclaimer

This presentation has been prepared by Energy Metals Limited ("Energy Metals or EME"). The information contained in this presentation is a professional opinion only and is given in good faith.

Certain information in this presentation has been derived from third parties and though Energy Metals has no reason to believe that it is not accurate, reliable or complete, it has not been independently audited or verified by Energy Metals.

Any forward looking statements included in this presentation involve subjective judgement and analysis and are subject to uncertainties, risks and contingencies, many of which are outside the control of, and maybe unknown to, Energy Metals. In particular they speak only to the date of this presentation, they assume the success of Energy Metals' strategies, and they are subject to significant regulatory, business, competitive and economic uncertainties and risks. Actual future events may vary materially from the forward looking statements and the assumptions on which these assumptions are based. Recipients of this presentation are cautioned not to place undue reliance on such forward looking statements.

Energy Metals makes no representation or warranty as to the accuracy, reliability or completeness of information in this document and does not take responsibility for updating any information or correcting any errors or omissions which may become apparent after this presentation is released.

To the extent permitted by law, Energy Metals and its officers, employees, related bodies corporate and agents disclaim all liability, direct, indirect or consequential (and whether or not arising out of the negligence, default or lack of care of Energy Metals and/or any of its agents) for any loss or damage suffered by a recipient or other persons arising out of, or in connection with, any use or reliance on this presentation or information.

Information in this presentation relating to exploration results, data and cut off grades is based on information compiled by Dr Wayne Taylor. Dr Taylor is a member of the AIG. Dr Taylor is a consultant of Energy Metals. He 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 "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)". Dr Taylor consents to the inclusion of the information in the report in the form and context in which it appears.

All amounts in A\$ unless stated otherwise.



# **Brief Introduction of Energy Metals Limited**

#### The Projects of Energy Metals Limited





# **Brief Introduction of Energy Metals Limited**

#### Issues shares & cash on hand

Shares on Issue	209.7m
Shareholders*	697
Cash & Bank (31 Dec 2023)	\$13.19m

<sup>\*</sup> As on 18 April 2024

#### **Top 10 Shareholders**

China Uranium Development Company Ltd*	66.45%
Ningbo Weisheng Dingxuan Equity Inv Cap Partnership	12.66%
Jindalee Lithium Limited	4.86%
Mr. Bin Cui	3.58%
Kale Capital Corporation Ltd	1.43%
Mr Lindsay George Dudfield	1.22%
Evermind Pty Ltd	0.93%
Central Pacific Minerals NL	0.57%
Citicorp Nominees Pty Limited	0.42%
BNP Paribas Nominees Pty Ltd	0.39%

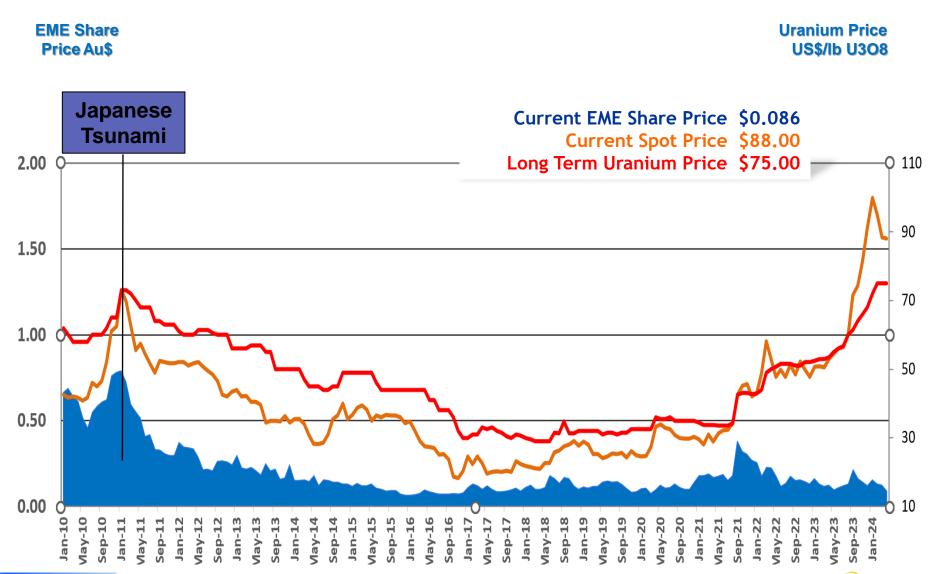
<sup>\*</sup> A subsidiary of CGN Uranium Resources Company Ltd

#### **Directors & Management**

- Mr Degiang Tian (Non-Executive Chairman)
- Mr Shubiao Tao (Managing Director)
- Mr Lindsay Dudfield (Non-Executive Director)
- Ms Jan Macpherson (Non-Executive Director)
- Mr Zhe Xu (Non-Executive Director)
- Mr Jun Zhou (Non-Executive Director)
- Mr Wei Wang (Non-Executive Director)
- Ms Xuekun Li (Company Secretary)
- Mr Dave Nelson (Exploration Manager)



### **EME Share Price vs U308 Price Since 2010**

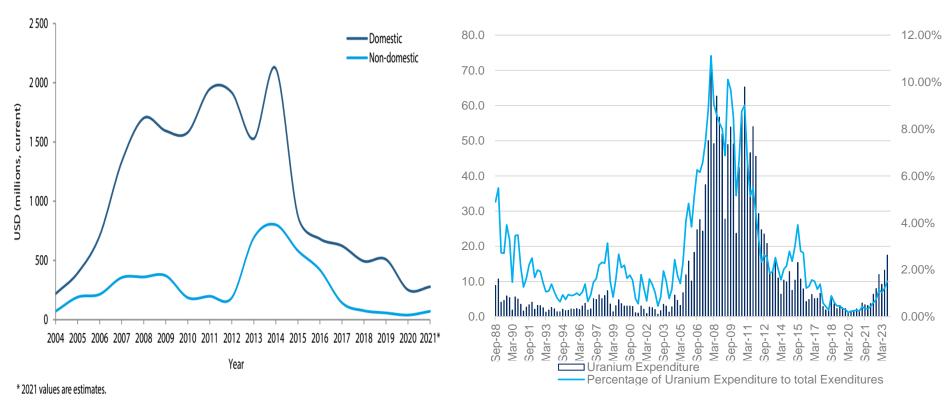




## **Uranium Exploration Investments remain at low levels**

# Trends in Global Exploration and Development Expenditures

# Australia Uranium Exploration Expenditure AUD Millions



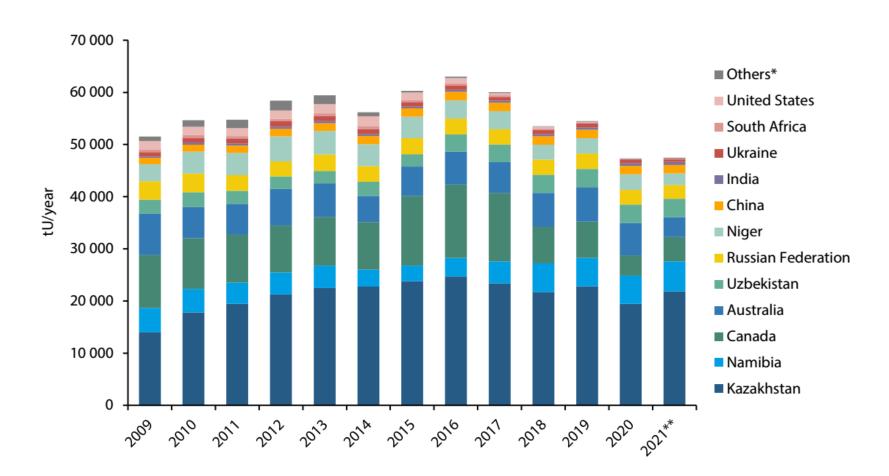
Source: Nuclear Energy Agency, International Atomic Energy Agency, and Australian Bureau of Statistics

Historically on average, the extraction of identified resources has taken 10-20 years or more, in addition to several decades for the delineation of undiscovered resources.



### **Uranium Market Review**

#### **Recent World Uranium Production**



Source: Nuclear Energy Agency

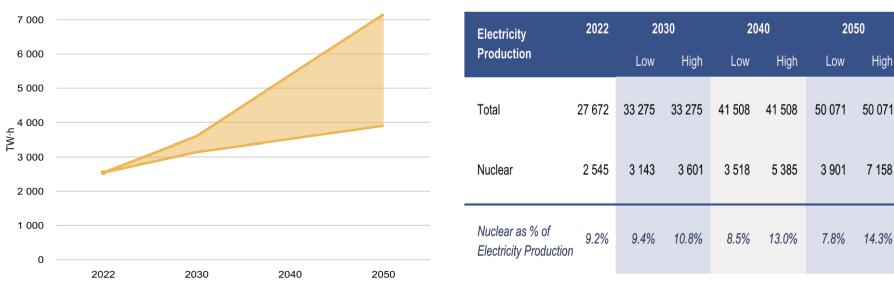


### **Uranium Market Review**

#### **Demand for Uranium is expected to surge**

#### **According to IAEA in September 2023:**

- Total electrical generating capacity is expected to increase by about 22% by 2030 and then double by 2050
- Two out of every three nuclear power reactors have been in operation for more than 30 years and are scheduled for retirement in the foreseeable future.

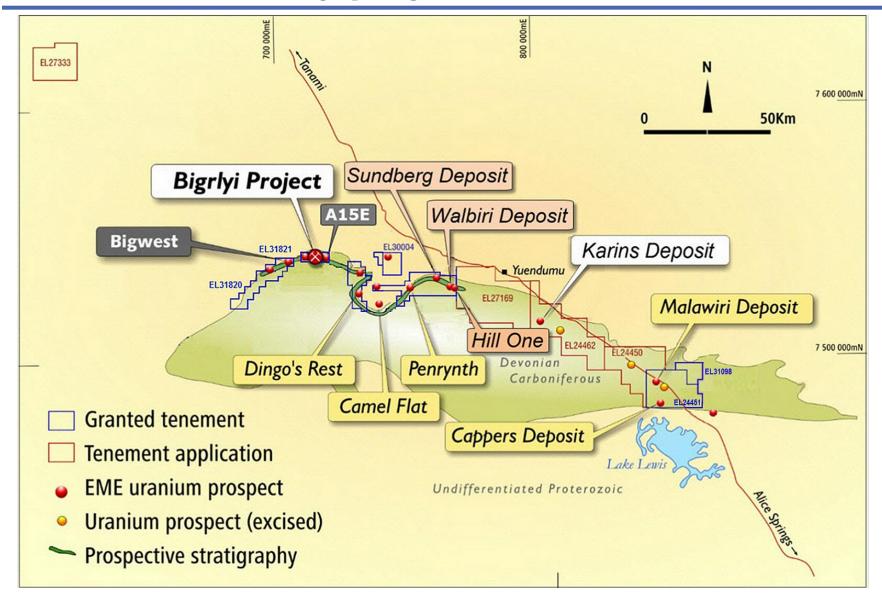


Souce: IAEA Electricity and Nuclear Power Estimates for the Period up to 2050 2023 Edition

In December 2023, at the 28th United Nations Climate Conference (COP28), 22 countries, including the US, Canada, United Kingdom, and Japan, signed a pledge to triple global nuclear production by 2050 compared to the 2020 baseline.

Discovering Clean Energy

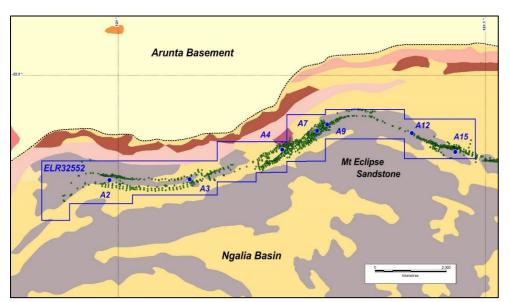
# **Northern Territory projects**





# Northern Territory Projects: Bigrlyi JV

### Bigrlyi Joint Venture (EME 72.39%, NTU 20.82% and Noble 6.79%)



# Mineral Resource Estimate at 500ppm U3O8 Cut-off (2011)

Resource Category	Tonnes (millions)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (t)	U <sub>3</sub> O <sub>8</sub> (Mlb)
Indicated	4.7	1,366	6,360	14.0
Inferred	2.8	1,144	3,210	7.1
Total	7.5	1,283	9,570	21.1

- Bigrlyi is EME's flagship project
- A sandstone-hosted Uranium-Vanadium Deposit
- Well positioned to take advantage of recent positive sentiment in the uranium market
- Various maintenance activities, such as maintenance and upgrading of existing access tracks, clearing of a new track to the camp water supply bore, and refurbishing facilities and services at camp, were carried out at the Bigrlyi field camp, in preparation for increased volumes of field work in 2024
- EME formulated a plan to update the
   Mineral Resource Estimate (MRE) with JORC
   2012 guidelines in 2023. The work
   commenced during the fourth quarter and
   expected to complete by June 2024

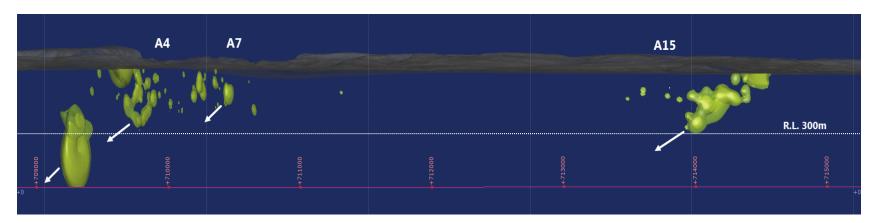
MetalsLimited

## Bigrlyi Project: Potential for Resource Expansion

Past work has shown that the economics of the Bigrlyi project can be significantly improved by an increase in the resource base, an increase in feed grade to the plant, and removal of acid-consuming gangue.

A review of the potential for resource expansion at depth was undertaken with positive results:

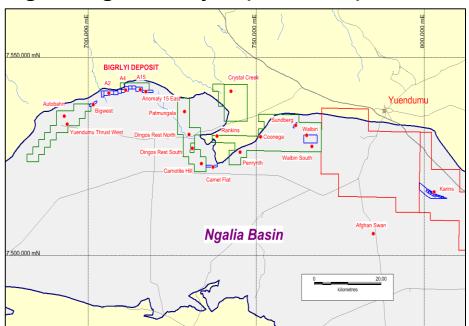
- Mineralisation is completely open at depths (>300m) below modelled pit shells and downplunge of existing ore bodies.
- Limited previous deep drilling encountered some high grade intercepts particularly at A4 including: 21m at 1,392 ppm U3O8 in hole BRD11166 at 352m vertical depth and 4m at 6,662 ppm U3O8 in hole BRD11051 at 458m vertical depth.





# **Ngalia Regional Projects**

#### **Ngalia Regional Project (EME 100%)**



Crystal Creek REE Project: Aircore drilling of 32
 drillholes for 541 meters was carried out in August
 2023. At the 500ppm cut-off level, significant
 thicknesses of REE mineralization were encountered
 with 40% of the holes having intervals with TREO grade
 x thickness values exceeding 10,000 ppm for an average
 Discovering grade of 823 ppm.

- Work programs in 2023 focused on regolithhosted uranium exploration at Dingo's Rest on EL30144, and regolith-hosted rare earth element (REE) exploration at the Crystal Creek prospect on EL30004.
- Dingo's Rest South Drilling: A small aircore drilling program comprising 6 holes for a total of 190 meters was completed in August 2023. The aim of the program was to test concealed geophysical targets at the Dingos Rest South prospect. However, no significant uranium intersections were reported, and the targets previously identified by geophysical methods appear to be intervals of pale, reduced, barren sandstone.

# Plans for 2024

## **Northern Territory Projects:**

- Active exploration activities:
  - Main focus is resource expansion drilling program at Bigrlyi
    - Drilling is expected to commence in July and continue through Q3
    - Approximately 12,000m of RC and 3,500m of diamond drilling expected
  - Drilling program at Ngalia
- Metallurgical and mineralogical test-work
- MRE Updates

## **WA Projects:**

Exploration activities suspended





# Competent Persons' Statement

The information in this report relating to mineral resource estimates for the Bigrlyi Deposit is based on information compiled by Arnold van der Heyden BSc, who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM). Mr van der Heyden has more than five years relevant experience in estimation of mineral resources and the mineral commodity uranium. Mr van der Heyden is a full time employee of Helman & Schofield and takes responsibility for the resource estimation. Mr van der Heyden has sufficient experience relevant to the assessment of this style of mineralisation to qualify as a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2004)". Mr van der Heyden consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

The Mineral Resource estimate for the Bigrlyi Deposit was originally compiled and announced utilising parameters from the 2004 JORC Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. This information was prepared and first disclosed to the ASX on 28 June 2011 under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

Information in this presentation relating to exploration results, data and cut-off grades is based on information compiled by Dr Wayne Taylor, MAIG. Dr Taylor is a consultant of Energy Metals. Dr Taylor has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)". Dr Taylor consents to the inclusion of the information in the report in the form and context in which it appears.

