

# Advancing the USA's largest measured uranium deposit



RIU Resurgence Conference

22 November 2023

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"Measured Resources", "Indicated Resources" and "Inferred Resources" are to those terms as defined in the JORC Code.

Information in this presentation relating to Exploration results and Mineral Resources is based on information compiled by Mr Lauritz Barnes (a consultant to Aurora Energy Metals Limited and a shareholder) who is a member of The Australian Institute of Mining and Metallurgy and The Australian Institute of Geoscientists. Mr Barnes 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 under the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Barnes consents to the inclusion of the data in the form and context in which it appears.

## Previous Disclosure:

Information in this announcement is based on the following Aurora Energy Metals Limited Announcements, which are available from the Company's website, [www.auroraenergymetals.com.au](http://www.auroraenergymetals.com.au) or the ASX website.

- 16 May 2022 – Prospectus
- 16 June 2022 – Encouraging lithium assays received
- 27 September 2022 – Aurora Energy Metals Project Update
- 19 October 2022 – Drilling to Commence at Aurora Energy Metals Project
- 23 November 2022 – 34% Increase in Total Uranium Resource to 50.6 Mlbs Maiden Measured Resource Declared at Aurora Uranium Deposit
- 17 January 2023 - Thick Lithium & Uranium Zones Returned - Maiden Drill Program
- 14 February 2023 – Further Assay Results for AEMP
- 22 February 2023 – Final Assay Results for 2022 Drilling
- 26 April 2023 – Positive Review of Historical Uranium Testwork

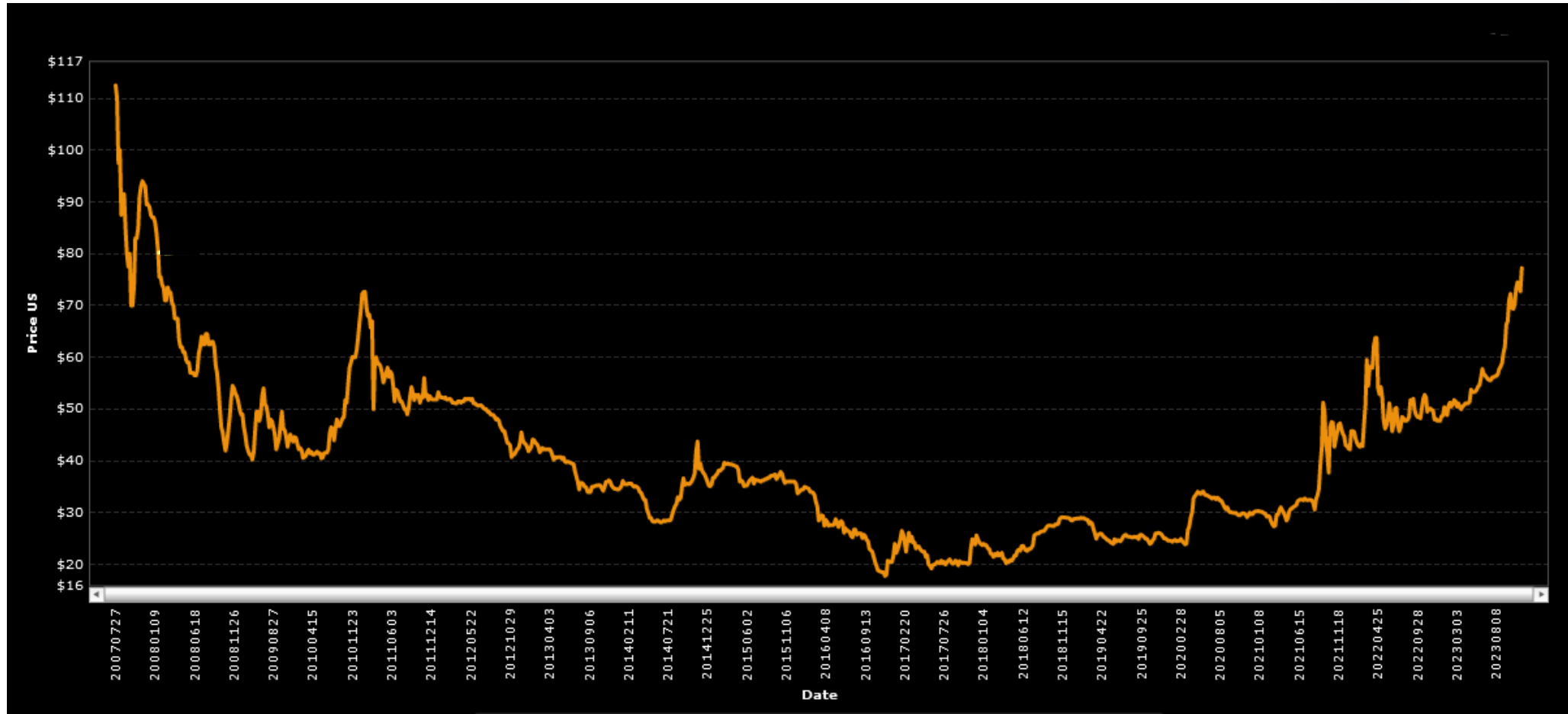
This announcement has been authorised for release on the ASX by Greg Cochran, Managing Director.

- Why uranium?
- Why US Uranium?
- Why Aurora?

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# Spot uranium price at 15 year high

*Year-to-date spot price is up over 67%, contracting volumes at decade high*



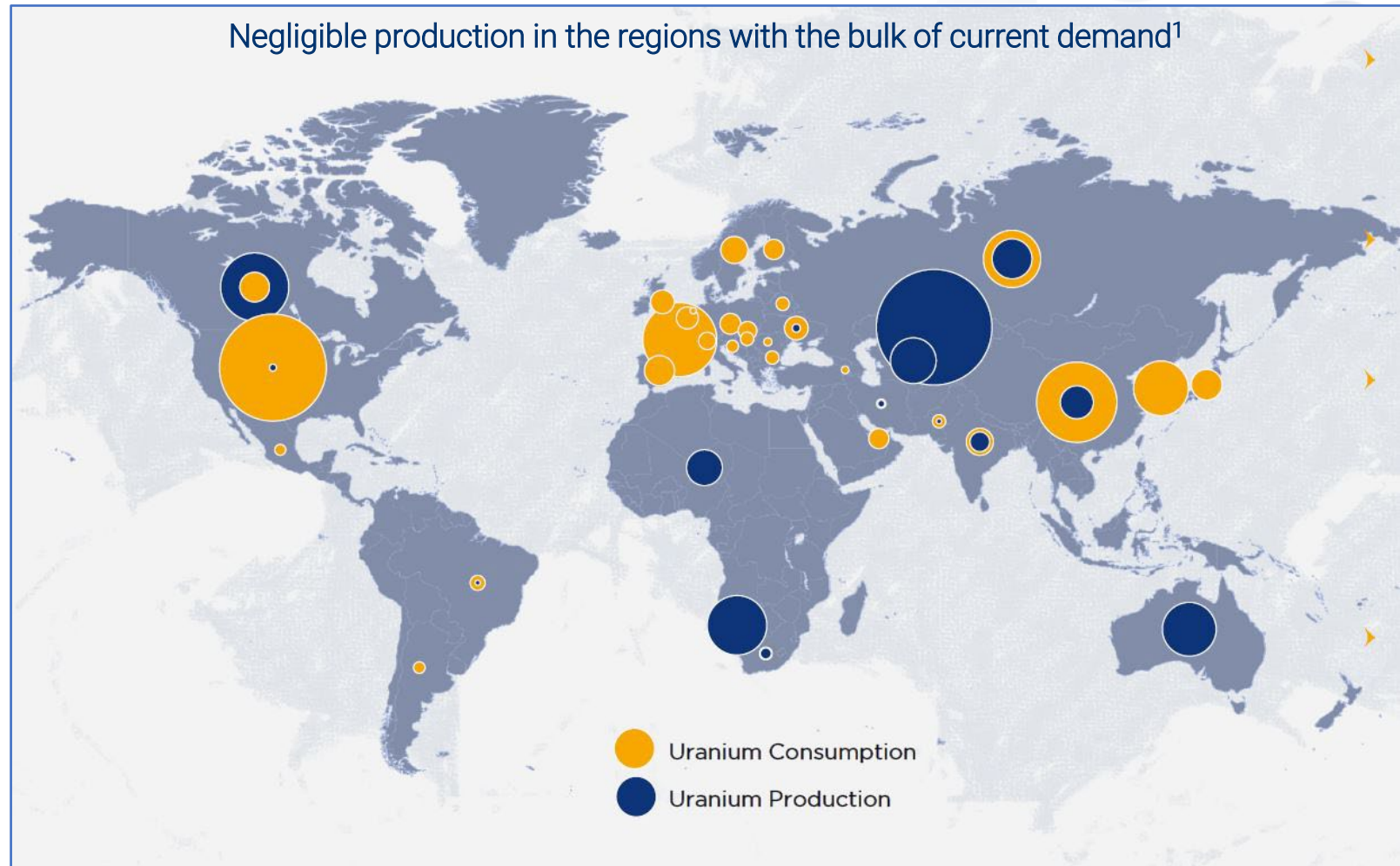
*UxC projects a 66 Mlb deficit for 2023, a 34% shortfall compared to forecast demand of 195 Mlbs*



# Geopolitical tensions

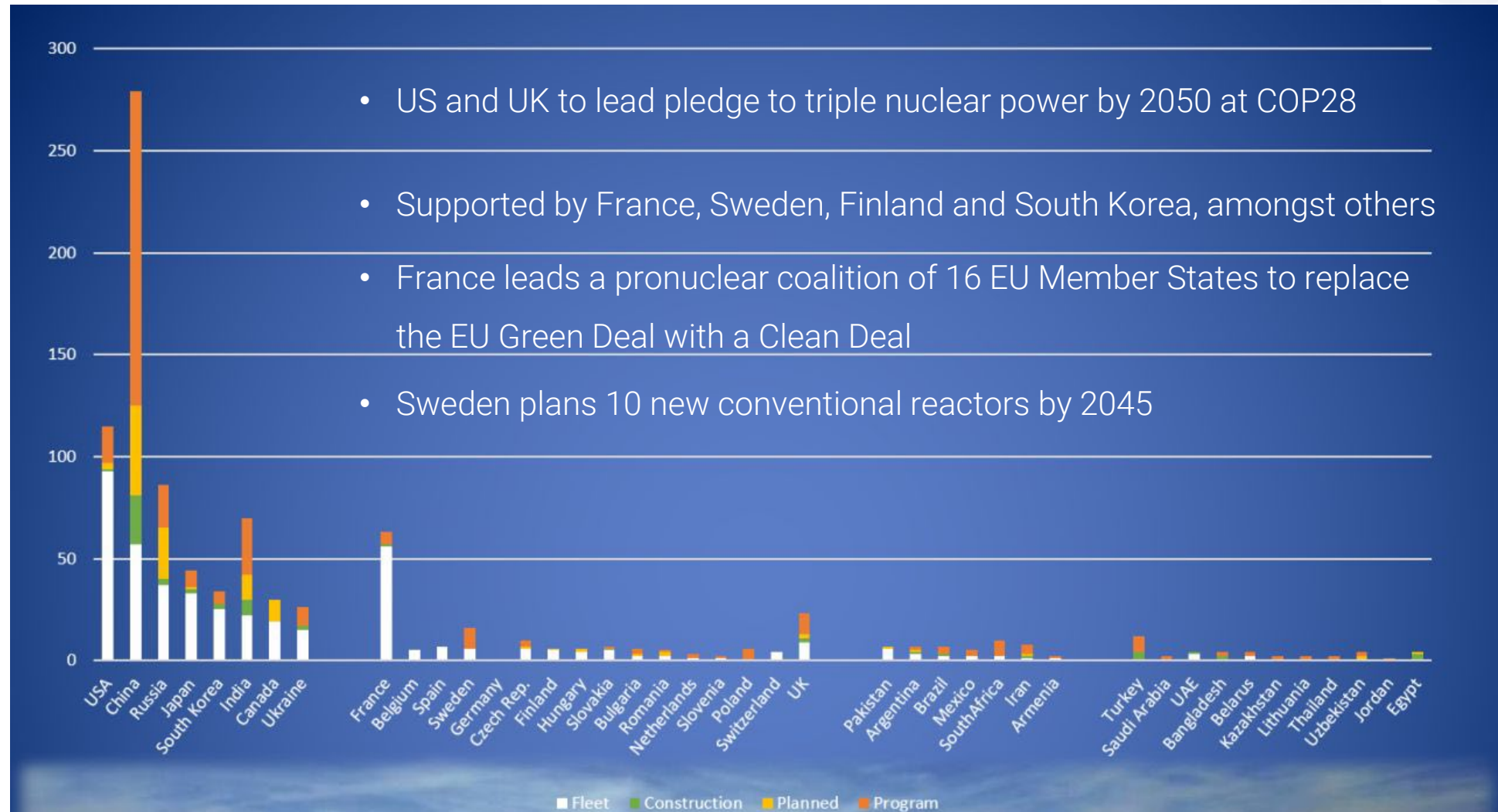
*Globally, a bifurcated market has brought energy security to the fore*

- Market imbalance between location of demand & supply.
- Exacerbated by Russia's invasion of Ukraine.
- Demand building in the east – China will be largest consumer within a decade.
- Security of uranium supply will be critical to future nuclear energy growth & development.
- US & EC will remain key markets.



# Towards Net Zero

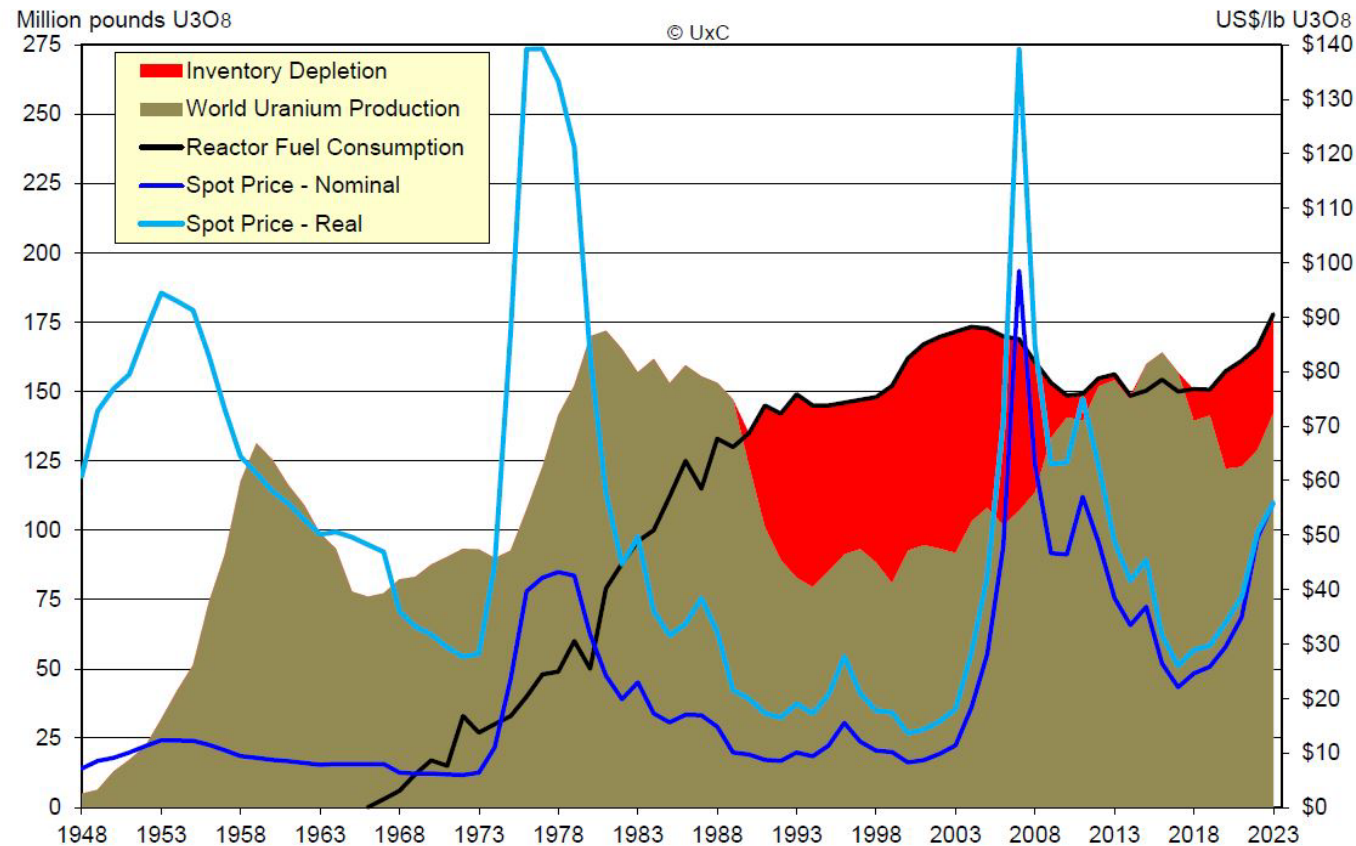
*Nuclear power resurgence gathering momentum*



- US and UK to lead pledge to triple nuclear power by 2050 at COP28
- Supported by France, Sweden, Finland and South Korea, amongst others
- France leads a pronuclear coalition of 16 EU Member States to replace the EU Green Deal with a Clean Deal
- Sweden plans 10 new conventional reactors by 2045

# Inventory Depletion

*The inventory overhang is now depleted, and production shortfalls are the future's reality*



Since 1990, net  
inventory depletion  
estimated at 1.357  
billion lbs U<sub>3</sub>O<sub>8</sub>e





- Why uranium?
- Why US Uranium?
- Why Aurora?

# Why US domestic uranium is so important?

*The world's largest uranium consumer imports almost all its requirements<sup>1</sup>*

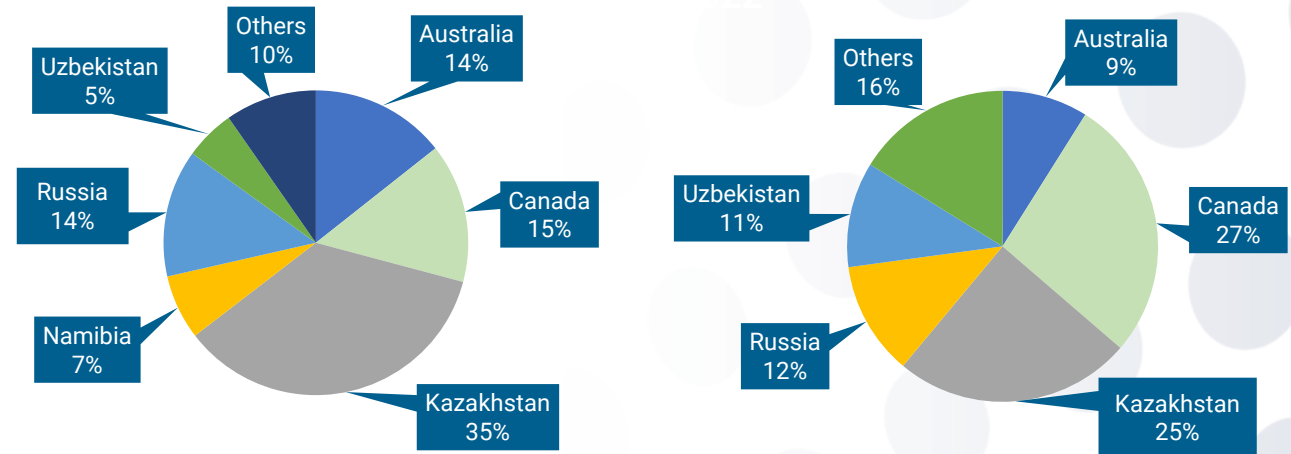
- World's largest nuclear power fleet – hence the world's largest uranium consumer.
- Well established nuclear power sector with no infrastructure restrictions.
- Domestic supply is a priority – supported by the US\$368B Inflation Reduction Act.
- Uranium mining and processing is well understood from a regulatory perspective.

*"doubling nuclear capacity is well within what might be required for our net-zero transition.... it's a lot of reactors in the 2030's that we're going to have to build, particularly if we want to help with our 2035 goal of 100 percent clean electricity."*

*– Kathryn Huff, Assistant Secretary, DOE Office of Nuclear Energy, Nov 5, 2022*

*McKinsey Consultants modelling predicts that the global energy transition could require an additional 400 to 800 GW of new nuclear.*

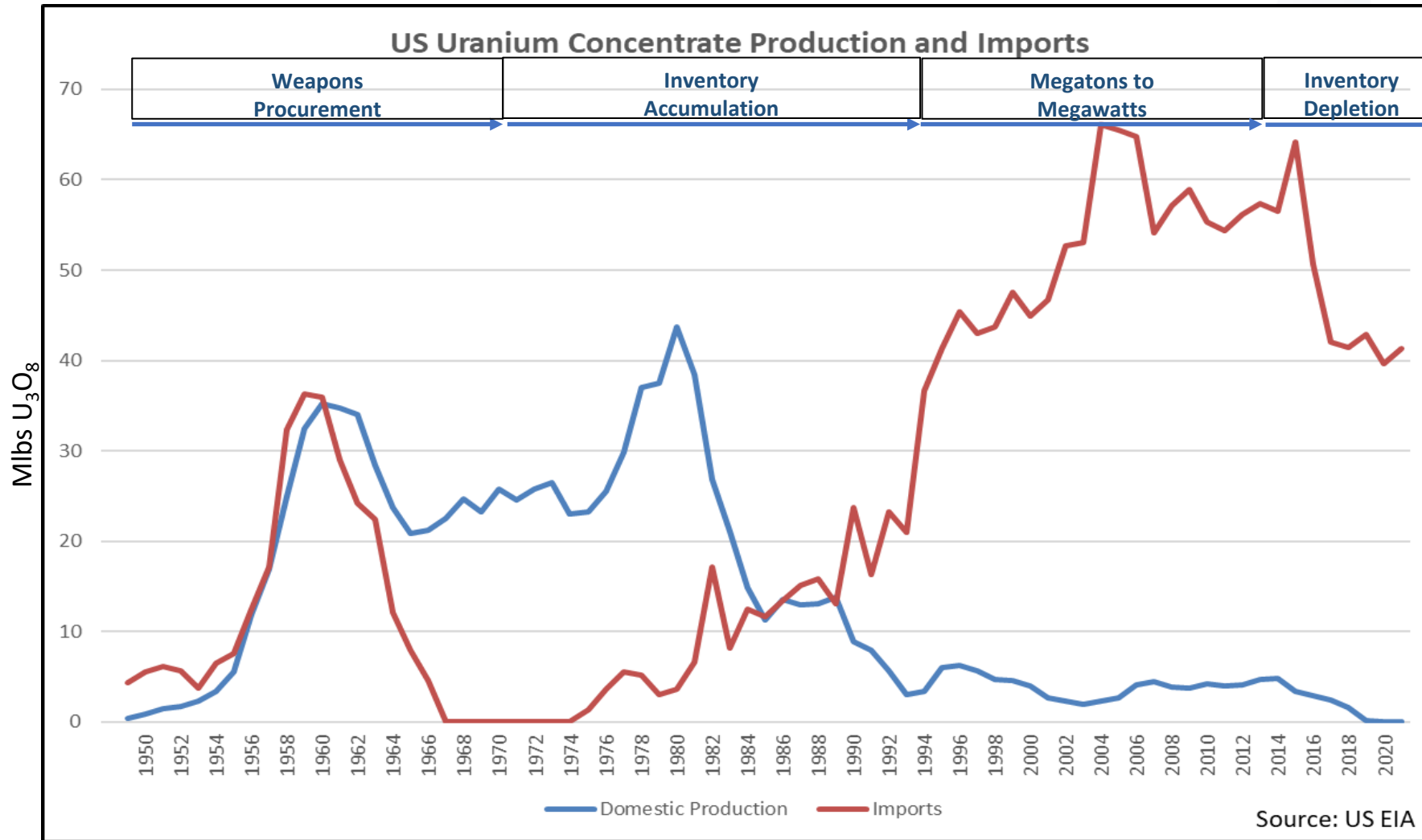
## Where does the USA get its uranium?



*Negligible domestic production for years...*

# US Uranium Boom & Bust

*Supply is almost nonexistent in the world's largest consumer of uranium*



# And why there's a resurgent US Uranium Mining Sector

*Aggressive plans to re-establish a reliable, domestic nuclear fuel supply chain<sup>1</sup>*

## Civil Nuclear Credit Program

*Financial support for nuclear power plants at risk of premature closure, for example California's Diablo Canyon*

## Strategic Uranium Reserves

- *US\$700m fund established by US Congress for Enriched Uranium*
- *Department of Energy established a US\$15m Strategic Uranium Reserve*

## Bi-Partisan Support

- *Inflation Reduction Act – US\$368Bn*
- *Infrastructure Law – US\$6Bn Nuclear Credit Program*

The US retains its global leadership of the nuclear energy sector:

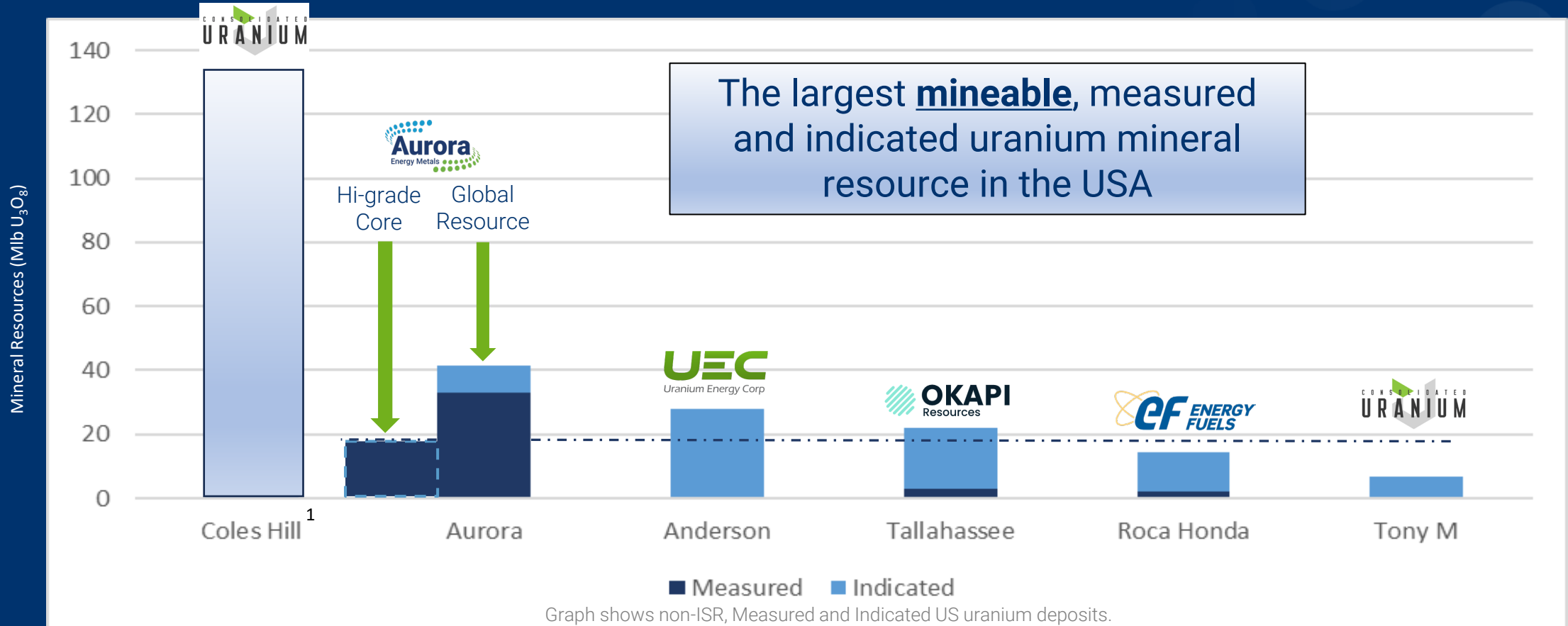
- The largest nuclear power fleet in the world.
- Nuclear generates 50% of its low carbon/emissions free electricity.
- Nuclear has bipartisan support.
- Nuclear has highest ever level of public support.
- Urgent need to revitalise the US nuclear supply chain.



- Why uranium?
- Why US Uranium?
- Why Aurora?

# One of the largest US Uranium Deposits

107.3 Mt @ 214 ppm  $U_3O_8$  for 50.6 Mlb  $U_3O_8$  – focussed on the shallow high-grade core: 18Mt @ 485 ppm  $U_3O_8$  for 19.2 Mlb  $U_3O_8$



Note: 1. Coles Hill is in Virginia, which imposed a moratorium on uranium mining in 1982. This ban was upheld by the Supreme Court of Virginia in September 2021.

# Key Points

*Why invest?*

## Resource Quality

- Large, well-defined deposit

## Great Infrastructure

- Direct access to hydroelectricity
- Sealed and unsealed roads

## Clear pathway to development

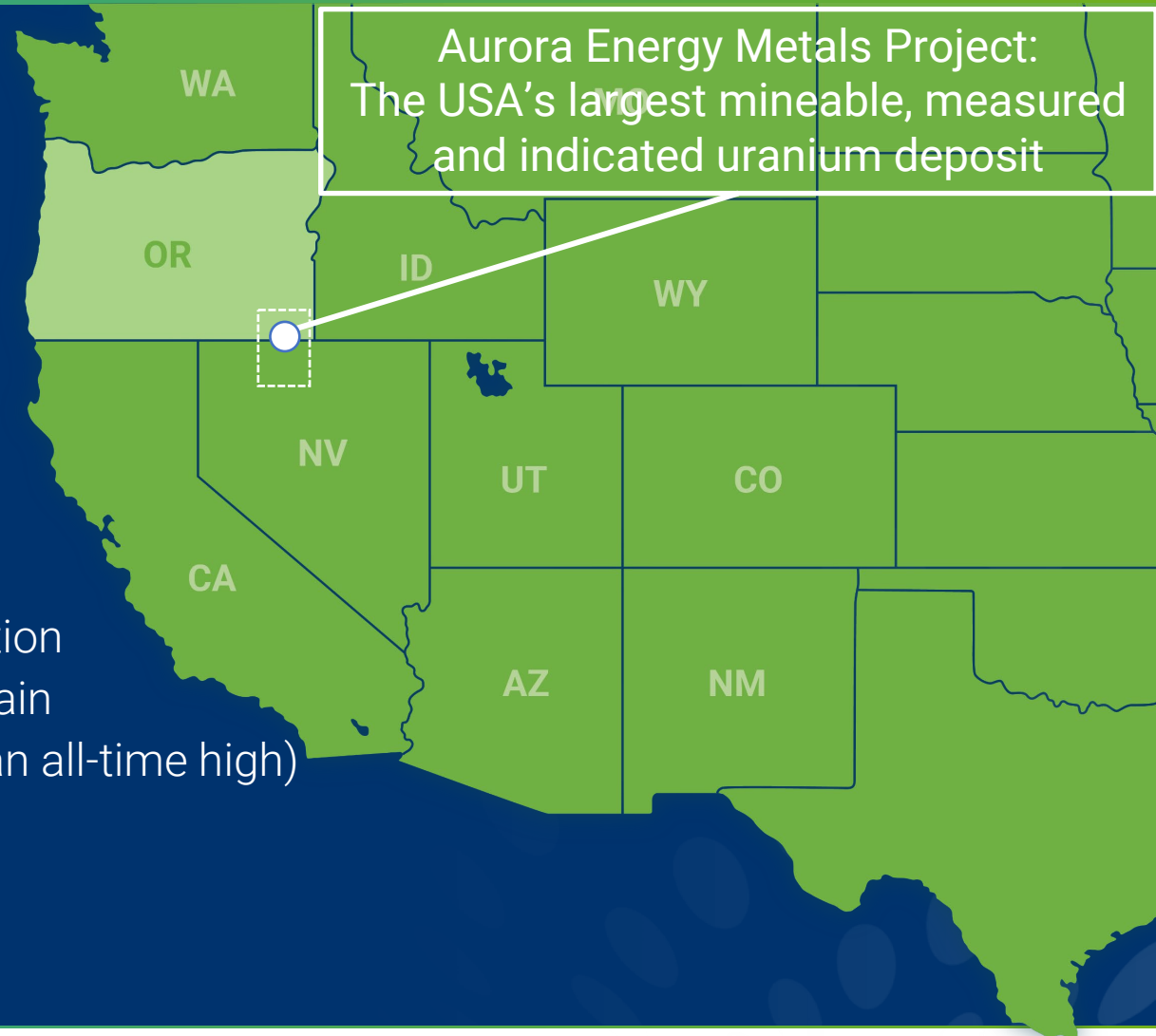
- Mine in Oregon, plant on private land in Nevada

## Attractive Jurisdiction

- World's largest uranium consumer, negligible production
- Strong desire to re-build domestic uranium supply chain
- Bi-partisan & public support for nuclear in the US (at an all-time high)
- Well understood permitting regime

## Compelling Valuation

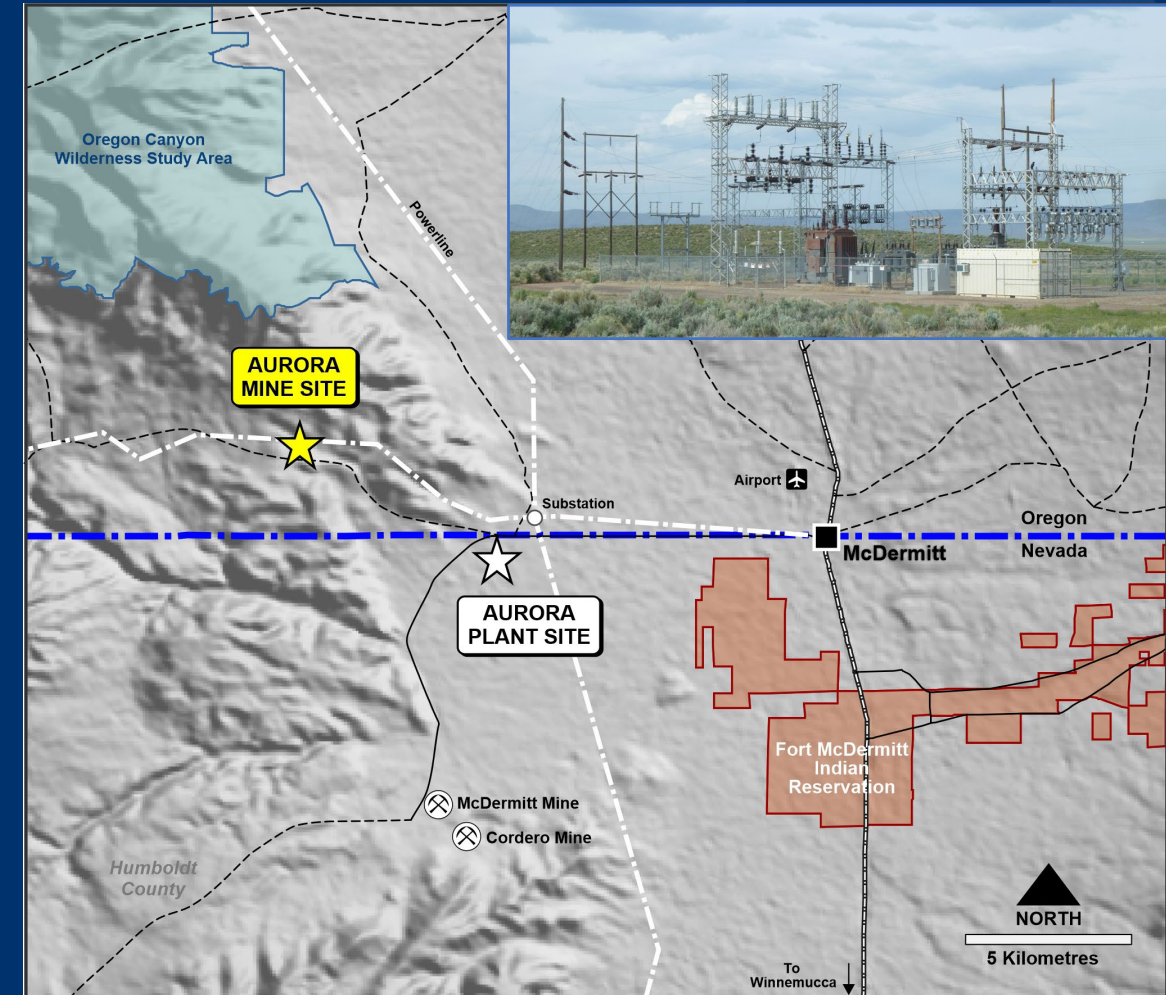
- Undervalued relative to peers



# Aurora Uranium Project

*The Project has inherent competitive advantages*

- Historical mining district – excellent infrastructure.
- 1970's discovery, extensively drilled.
- Large, well-defined resource (50.6 Mlb  $U_3O_8$ <sup>1</sup>).
- Focused on shallow, high-grade core:
  - 18Mt @ 485 ppm  $U_3O_8$  for 19.2 Mlb  $U_3O_8$ <sup>1</sup>.
- Beneficiation will reduce power and reagent consumption.
- Take advantage of the Project's shallow, free dig overburden.



1. ASX 23 November 2022 – 34% Increase in Total Uranium Resource to 50.6 Mlbs Maiden Measured Resource Declared at Aurora Uranium Deposit  
2. ASX 25 April 2023 – Positive Review of Historical Uranium Testwork

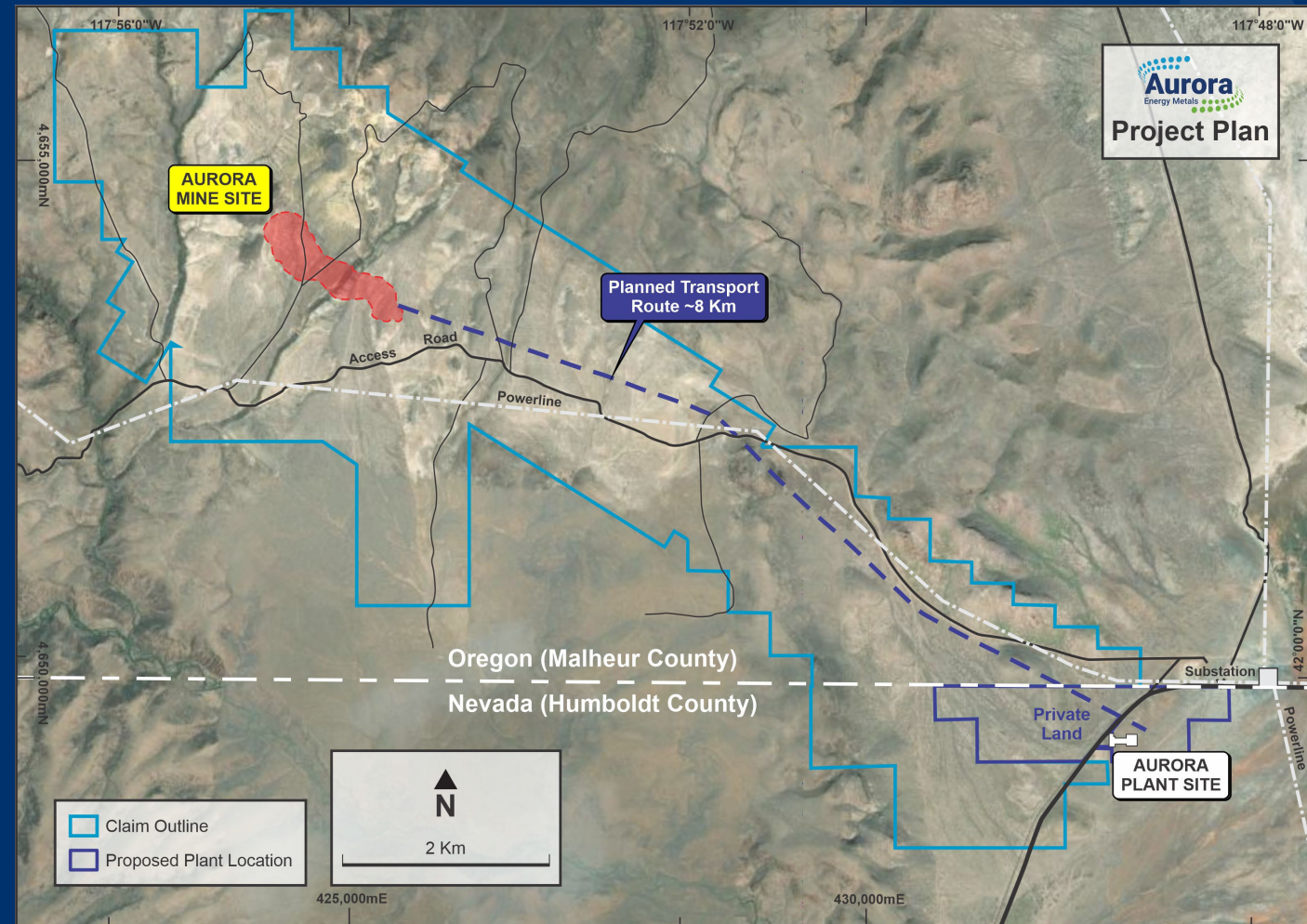


# Established, Clear Pathway to Development

*Use existing infrastructure, roads and most importantly, available hydroelectricity supply*

- Mine in Oregon → Process plant in Nevada, on private land.
- Excellent infrastructure for Plant:
  - Existing sealed road from McDermitt.
  - Use available hydroelectricity supply.
  - Town of McDermitt nearby.
  - McDermitt on US Highway Route 95.
- Hydroelectricity means low carbon footprint.
- Stockpile lithium in overburden for future processing.

Power mine with emissions free, low-cost hydro-electricity



# Corporate Snapshot

*Advancing the USA's largest measured uranium deposit*

**Capital Structure** (on an undiluted basis, as at 21 November 2023)

**1AE**

ASX Code

**179m**

Shares on Issue (inc. 19.9m escrowed)

**A\$14M**

Market Cap (at A\$0.078 per share)

**30m**

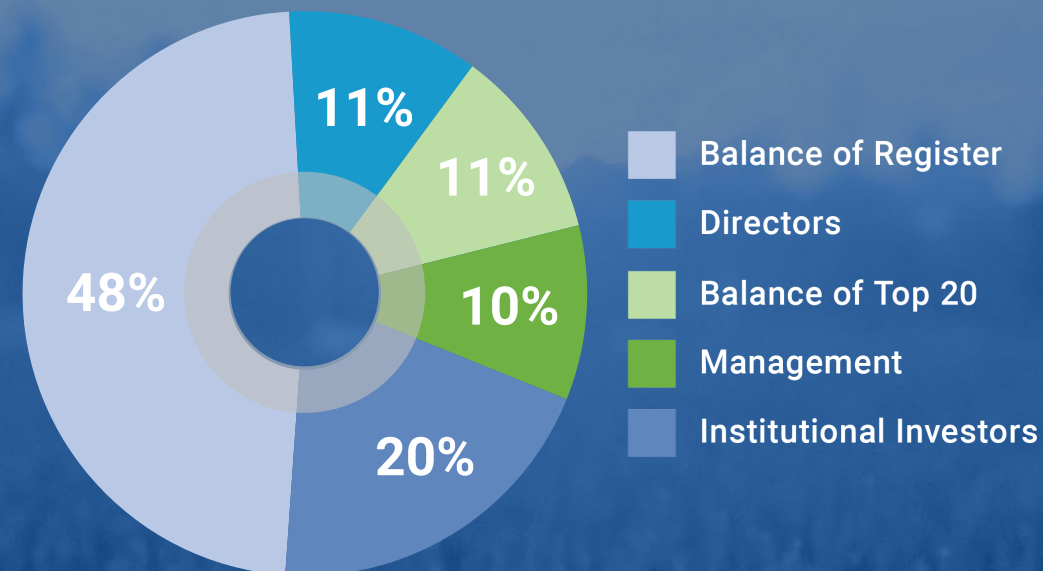
Options (21.2m @ \$0.15, 6m @ \$0.20, 2.85m @ \$0.30)

**~A\$3M**

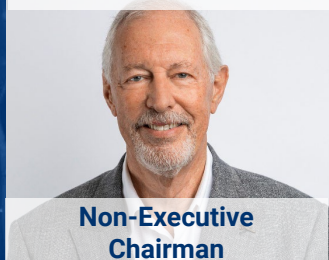
Cash (as at 30 Sept 2023)

**~A\$11m**

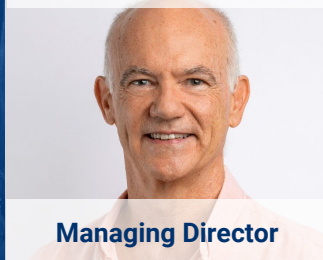
Enterprise Value



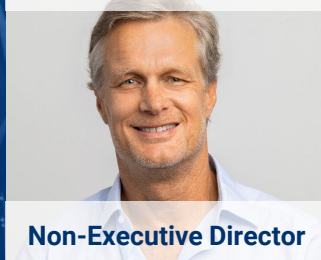
**PETER LESTER**



**GREG COCHRAN**



**ALASDAIR COOKE**

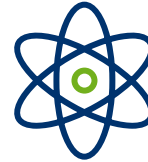


**STEVEN JACKSON**





# Concluding Remarks



## Reasons to invest in Aurora Energy Metals

US Jurisdiction:  
The world's largest uranium consumer, trying to revitalise domestic production

Asset Quality:  
Largest mineable M&I uranium resource in the USA

Infrastructure:  
Will enable accelerated development, with reliable, clean energy supply

Attractive valuation:  
Significant upside given current discount to peers

*Underpinned by a global, resurgent nuclear energy sector that is fundamental to the future success of the world's decarbonisation efforts.*

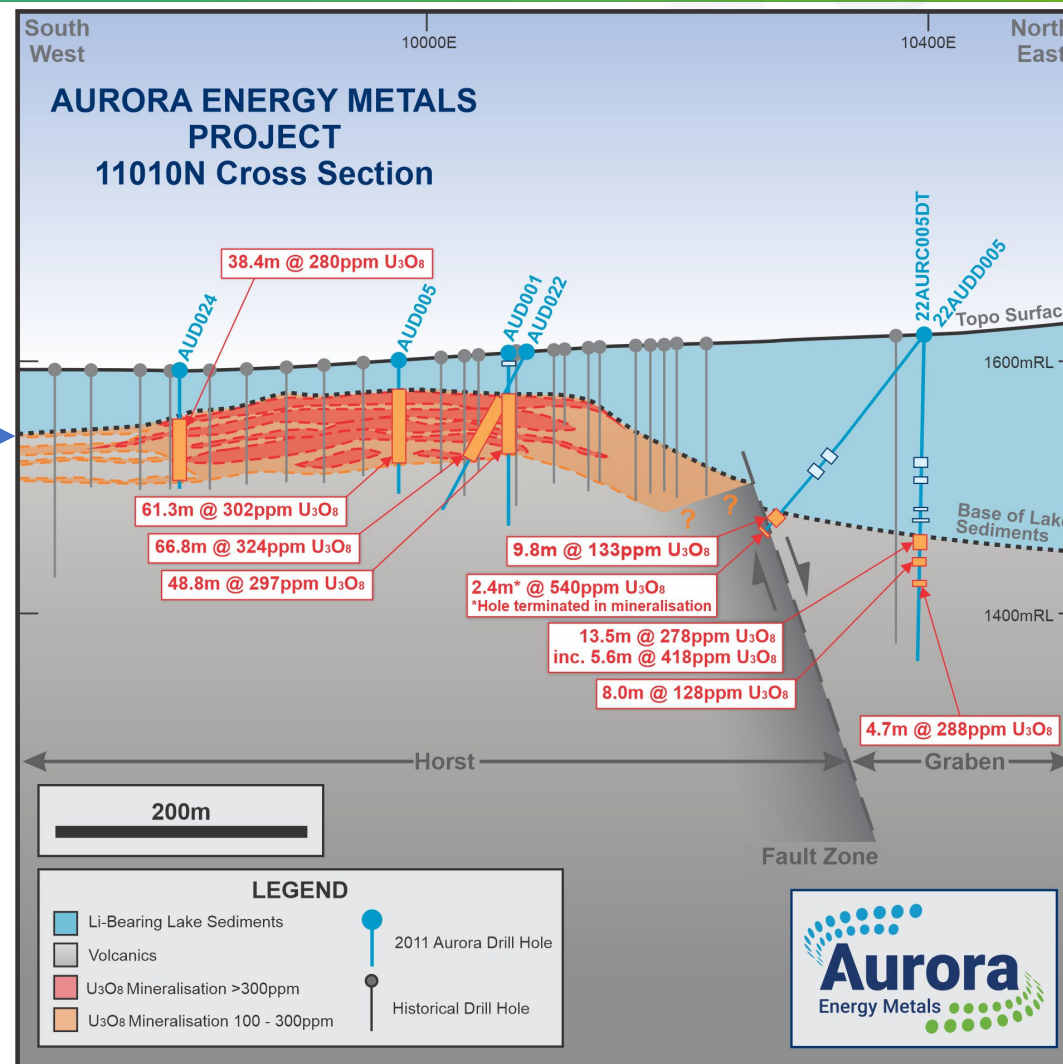
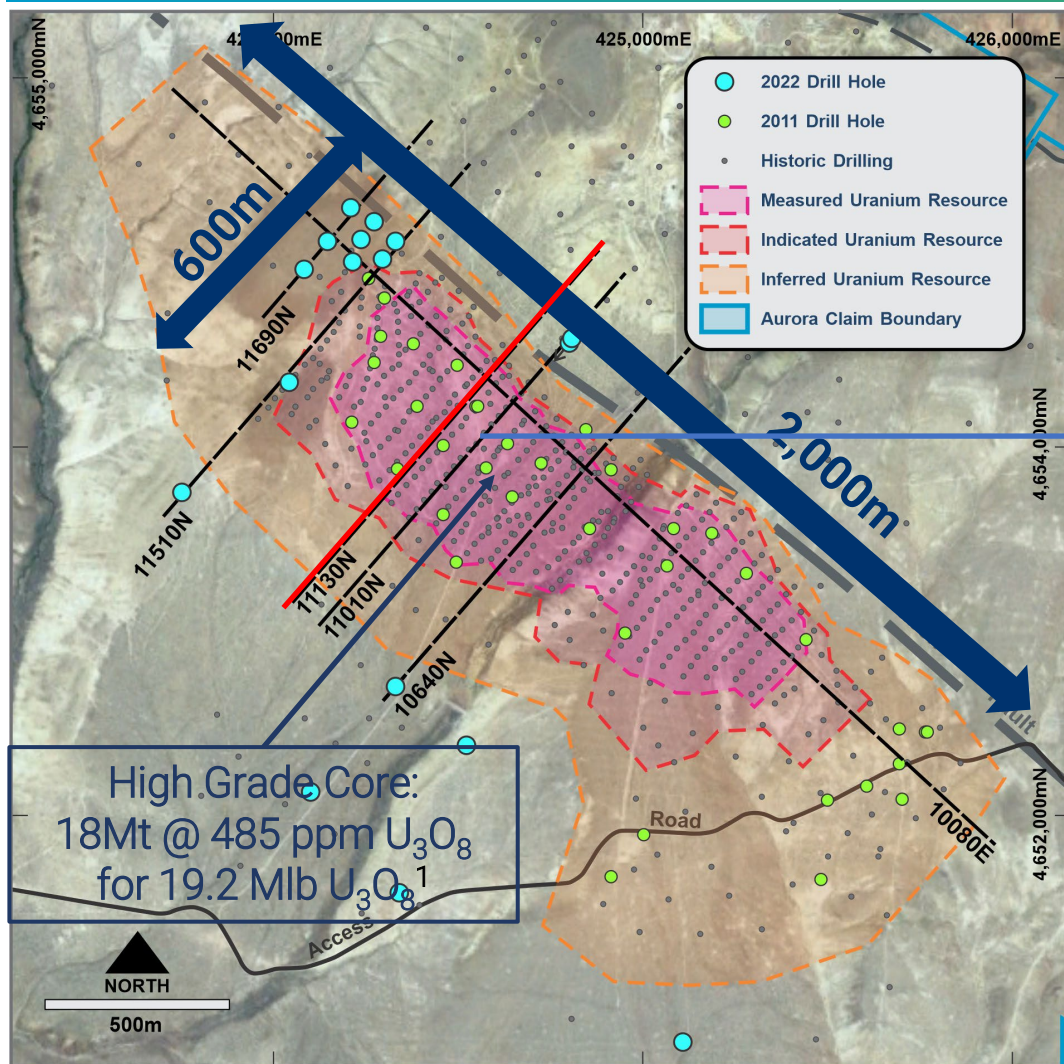
# Appendices

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# Well Defined Mineral Resource

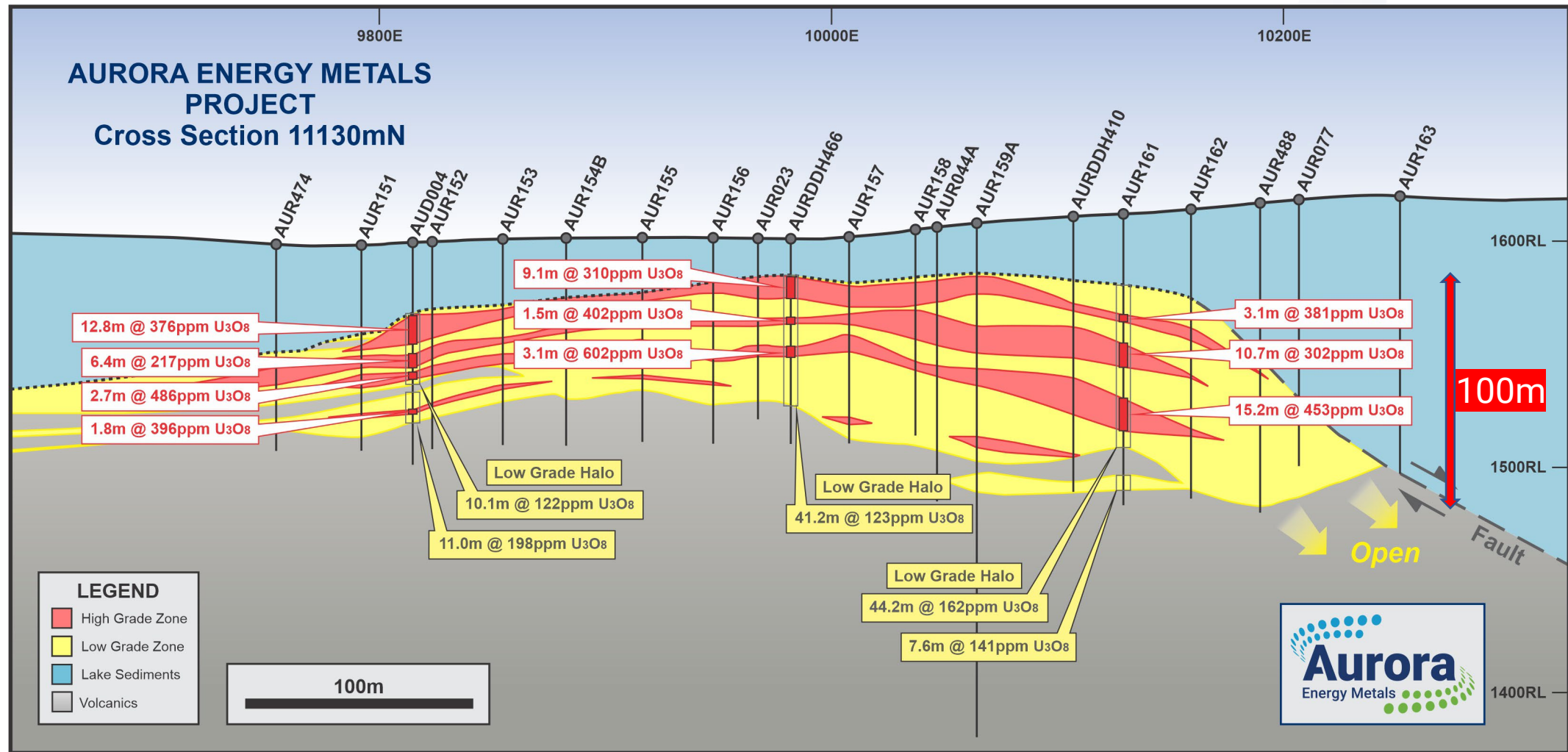
Well understood, with over 600 holes drilled, but still some exploration upside<sup>1</sup>



1. ASX 23 November 2022 – 34% Increase in Total Uranium Resource to 50.6 Mlbs Maiden Measured Resource Declared at Aurora Uranium Deposit

# Low Geological Risk

Global resource ~82% Measured and Indicated, High grade core ~99.5% Measured and Indicated<sup>1</sup>



# Uranium Resource Summary<sup>1</sup>

	Measured			Indicated			Inferred			Total		
Resource Zone	Mt	U <sub>3</sub> O <sub>8</sub> ppm	Mlb U <sub>3</sub> O <sub>8</sub>	Mt	U <sub>3</sub> O <sub>8</sub> ppm	Mlb U <sub>3</sub> O <sub>8</sub>	Mt	U <sub>3</sub> O <sub>8</sub> ppm	Mlb U <sub>3</sub> O <sub>8</sub>	Mt	U <sub>3</sub> O <sub>8</sub> ppm	Mlb U <sub>3</sub> O <sub>8</sub>
High Grade Zone <sup>1</sup>	16.3	487	17.5	1.6	467	1.6	0.1	425	0.1	18.0	485	19.2
Low Grade Zone <sup>2</sup>	43.2	162	15.4	19.8	161	7.0	26.3	155	9.0	89.3	160	31.5
Total	59.5	251	32.9	21.4	184	8.7	26.4	157	9.1	107.3	214	50.6

1. High grade zone estimated using a 300 ppm U<sub>3</sub>O<sub>8</sub> cut-off
2. Low grade zone estimated using a 100 ppm U<sub>3</sub>O<sub>8</sub> cut-off
3. Appropriate rounding applied

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Information in this announcement relating to Mineral Resources is extracted from the Announcement released by the ASX on 23 November 2022. Aurora Energy Metals Limited confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the Mineral Resource continue to apply and have not materially changed. Aurora Energy Metals Limited confirms that the form and context in which the Competent Persons' findings are presented in this announcement have not been materially modified from the original market announcement.





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