

# ABN 63 111 306 533

# QUARTERLY REPORT TO SHAREHOLDERS

for the six months ended 30 June 2015

# **ASX Code - EME**

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This report and further information are available on Energy Metals' website at:

# www.energymetals.net



# **HIGHLIGHTS**

# **Bigrlyi Joint Venture (NT)**

A maiden JORC (2012) Mineral Resource Estimate of

**691 tonnes @ 556ppm eU<sub>3</sub>O<sub>8</sub> (200ppm cut-off)** 

announced for the historical Karins uranium deposit.

# **Ngalia Regional Project (NT)**

Exploration targeting work continues throughout EME tenure in the Ngalia Basin, utilising results from last year's geophysical surveys. Four key target areas have been identified.

# **FINANCIAL**

Energy Metals had approximately \$22.31M in cash and 209.7M shares on issue at 30 June 2015.

Weidong Xiang Managing Director 30 July 2015

## **INTRODUCTION**

Energy Metals is a dedicated uranium company with eight exploration projects located in the Northern Territory (NT) and Western Australia covering over 4,000 km<sup>2</sup> (Figure 1). Most of the projects contain uranium mineralisation discovered by major companies in the 1970's, including the advanced Bigrlyi Project (NT).

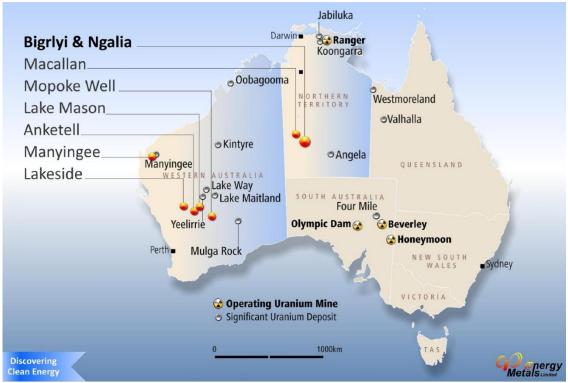


Figure 1 – Location of Energy Metals Projects

Energy Metals is well placed to take advantage of the favourable outlook for Uranium as nuclear power continues to play an increasing role in reducing global carbon emissions.

Importantly Energy Metals is one of only five companies that currently hold all the required permits and authorities to export Uranium Oxide Concentrates (UOC) from Australia. The Company recently completed its first shipment of UOC and is currently negotiating purchase agreements with Australian uranium producers to enable further shipments from Australia for resale, primarily to major Chinese utility China General Nuclear Power Group (CGN, formerly China Guangdong Nuclear Power Holding Company), ultimately Energy Metals' largest shareholder.

China Uranium Development Company Limited, Energy Metals' largest shareholder (with 66.45% of issued capital), is a wholly owned subsidiary of CGN. At 31 December 2014, CGN had 11 operating nuclear power units with a generation capacity of 11,620MWe and more than 15,500MWe of capacity under construction in 13 other nuclear power units across various locations around China. Additionally CGN is one of only two companies authorised by the Chinese government to import and export uranium.

This unique relationship with CGN gives Energy Metals direct market exposure as well as access to significant capital and places the Company in a very strong position going forward.

## NORTHERN TERRITORY

# **Bigrlyi Joint Venture (EME 53.3%)**

The Bigrlyi Joint Venture comprises 10 granted exploration licences in retention (ELR's), two granted ELs, and several applications within the Ngalia Basin, located approximately 350km northwest of Alice Springs. EME operates the Joint Venture in partnership with Paladin Energy subsidiary Northern Territory Uranium Pty Ltd and Southern Cross Exploration. The Bigrlyi Joint Venture tenements have been subject to significant exploration activity since discovery in 1973, including over 1,040 drill holes, metallurgical testwork and mining studies, with most work undertaken at the Bigrlyi Project(Figure 2).

The Bigrlyi Project is characterised by relatively high uranium grades and excellent metallurgical recoveries. Historical base case acid leach tests recorded extraction rates of 98% uranium. For further information on metallurgical testwork, resource estimates and economic studies please refer to ASX announcements or the Company's website <a href="https://www.energymetals.net">www.energymetals.net</a>.

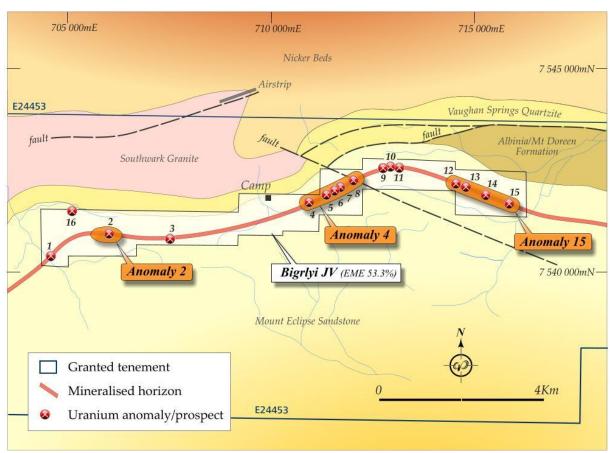


Figure 2 – Bigrlyi Project Simplified Geology

The historical Karins deposit, located approximately 260km northwest of Alice Springs (Figure 3), is located on tenement applications MLN1952 and MCS318-328; these tenements are part of the Bigrlyi Joint Venture. Karins is a tabular uranium-vanadium style of deposit similar to Bigrlyi although with an oxidised zone (carnotite zone) of variable thickness. Following the discovery of carnotite in drill cuttings from a seismic shot hole in 1973, Central Pacific Minerals tested the Karins area with 110 exploration drill holes in the period 1974 to 1981. EME acquired CPM's interest in the project in 2005, including all the historical exploration records which are now held in EME's archives.

During the quarter, EME undertook a program of digitisation and reprocessing of the historical gamma logs, core re-logging, and historical data compilation and verification. In June EME's resource consultants undertook a maiden JORC-compliant resource estimate for the Karins Deposit and this was released to the ASX on 1 July 2015 (see Table 1 for further details).

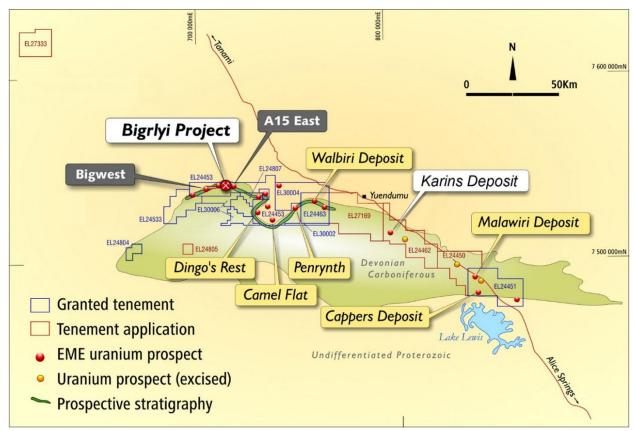


Figure 3 - Uranium deposits, occurrences and exploration target areas in the Ngalia Basin

#### **Walbiri Joint Venture (EME 41.9%)**

ELR45, granted in August 2014, covers part of the historical Walbiri Deposit. The project is a joint venture with Paladin Energy Ltd (58.1%), with EME as the operator. Work during the quarter included digitisation and reprocessing of historical gamma logs, continuation of core re-logging and historical data compilation and verification in conjunction with regional Ngalia Basin studies to better understand this deposit (see below). This work is on-going, subject to joint venture funding.

#### Malawiri Joint Venture (EME 52.1%)

ELR41, granted in August 2014, covers the historical Malawiri Deposit to the west of Paladin's Minerva Deposit. The project is a joint venture with Paladin Energy Ltd (47.9%) with Energy Metals as the operator. A program of digitisation and reprocessing of historical gamma logs, core re-logging, and historical data compilation and verification was completed during the quarter. Based on results from the 2014 geophysical survey, a new geological model has been developed for Malawiri area (see below).

#### **Activities (June 2015 Quarter)**

Activities undertaken at Bigrlyi during the quarter included camp maintenance and drill site rehabilitation works.

The following maiden Mineral Resource Estimate (JORC, 2012) for the historical Karins Deposit was announced to ASX on 1 July 2015:

Table 1: Estimate of Mineral Resources for the Karins Deposit (200ppm U₃O<sub>8</sub> cut-off)

Category	Туре	Volume, '000 m <sup>3</sup>	Tonnes, '000 t	Grade		Mineral Resources	
				U <sub>3</sub> O <sub>8</sub> , ppm	U, %	U <sub>3</sub> O <sub>8</sub> , tonnes	U <sub>3</sub> O <sub>8</sub> , M lb
Inferred	Oxidised	290	719	526	0.045	379	0.83
Inferred	Primary	211	524	597	0.051	312	0.69
Inferred	Total	501	1,243	556	0.047	691	1.52

#### Notes:

- 1. The Mineral Resources are for a 100% interest in the joint venture and not the Mineral Resources attributable to the individual joint venture partners.
- 2. Mineral Resources are based on 200 ppm cut-off grade per resource block.
- 3. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- 4. Mineral Resources are based on JORC-2012 definitions.
- 5. Mineral Resources are based on a bulk density of  $2.48 \text{ t/m}^3$ .
- 6. Rows and columns may not add up exactly due to rounding.

The Mineral Resources have been classified and reported in accordance with JORC (2012) requirements. The resource classification is based on the assessed level of confidence in sample methods used, geological interpretation, drill spacing and geostatistical measures.

EME believes the mineral resources defined here make a valuable contribution to total regional uranium resources in the Ngalia Basin, and being located at open pittable depths will enhance the economics of any potential regional mining development.

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

The Ngalia Regional project comprises thirteen 100% owned exploration licences (total area approximately 3,400 km²) located in the Ngalia Basin, between 180km and 350km northwest of Alice Springs in the Northern Territory (Figure 3). Eleven of these tenements are contiguous and enclose the Bigrlyi project as well as containing a number of uranium occurrences, including part of the historic Walbiri deposit and the Cappers deposit (Inferred Mineral Resource of 2,720 tonnes  $U_3O_8$  at a grade of 167ppm at 100ppm cut-off). The remaining two tenements are located southwest of the Bigrlyi deposits and cover discrete uranium anomalies with no evidence of previous exploration.

Nine of the thirteen Ngalia Regional exploration licences have been granted; the four remaining applications (EL's 24450, 24462, 24805 and 27169) are located on Aboriginal Freehold land and the consent of the Traditional Owners is required before the tenements can be granted. Energy Metals is negotiating with the Traditional Owners through the Central Land Council (CLC) and is confident that the Company will eventually gain access to these areas.

A number of high priority targets have been identified in the 100% EME tenements (see Figure 3) including;

- Bigwest, the western extension of the Bigrlyi trend (mostly under sand cover)
- Anomaly-15 East & Far East, the eastern extensions of the Bigrlyi trend adjacent to the Anomaly-15 deposit
- Autobahn, at the far western end of the Bigrlyi trend (mostly under sand cover)
- Camel Flat and associated eastern and western stratigraphic extensions
- The historic Walbiri prospect (western part of) and stratigraphic repeats
- Dingo's Rest (North and South)
- The Penrynth and Coonega prospects between Walbiri and Camel Flat
- Along strike extensions of the Minerva and Malawiri prospects
- The Crystal Creek prospect within ELA 30004
- Various small prospects along the prospective stratigraphic trend

Energy Metals is undertaking a systematic evaluation of these prospects, in many cases for the first time since the early 1980's. In February 2014, EME announced maiden resource estimates for the Bigwest, Anomaly-15 East and Camel Flat satellite deposits (Figure 3).

## **Activities (June 2015 Quarter)**

Work during the quarter was mainly focussed on the historical Walbiri deposit (part of which lies on 100% EME ground) and included digitisation and reprocessing of historical gamma logs, continuation of core re-logging, and historical data compilation and verification in conjunction with regional Ngalia Basin studies to better understand this deposit.

Following analysis of last year's geophysical survey results, new geological models were developed for the Walbiri South and Malawiri target areas. An important outcome of this work has been the recognition that prospective Mt Eclipse strata is typically intensely folded throughout the Ngalia Basin and therefore structural repetition of mineralisation is highly likely.

A modelled geological cross-section through the Malawiri area (Figure 4) shows that the Mount Eclipse sandstone is repeated in a series of tight synclinal structures separated by faulted anticlinal axial domains; numerous new target zones in which Malawiri style mineralisation is likely to be repeated have been identified (Figure 4). Exploration targeting work continues throughout EME tenure in the Ngalia Basin.

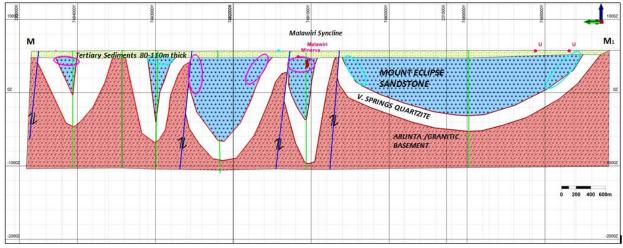


Figure 4 – Interpreted geological cross-section through the Malawiri area showing synclinal structures in which structurally repeated uranium mineralisation is likely to occur (pink and light blue oval areas)

# Macallan(EME 100%)

The Macallan project comprises a single exploration licence application (ELA27333), located 460 km NW of Alice Springs and 140 km from Bigrlyi. The tenement covers a strong 3km-wide bullseye radiometric anomaly. A recent interpretation of palaeovalley systems within central Australia by Geoscience Australia indicates that the Macallan anomaly lies within the Wildcat Palaeovalley, an ancient valley system that drains into Lake Mackay to the southwest. Energy Metals considers that the Macallan anomaly most likely represents a surficial accumulation of uranium minerals associated with the Wildcat palaeodrainage system; though other explanations are possible.

ELA27333 lies on land under Aboriginal Freehold title and access is subject to negotiation with the Traditional Owners and the CLC. A draft Exploration Access agreement provided by the CLC is currently under consideration by EME.

# **WESTERN AUSTRALIA**

## Manyingee (EME 100%)

The Manyingee exploration licence (E08/1480) is located 85 km south of the port of Onslow. The tenement (total area 86 km²) surrounds the mining leases containing Paladin Energy's Manyingee resource, a stacked series of palaeochannel-hosted roll front uranium deposits.

Encouraging results were obtained for a small rotary mud drill program (18 holes for 1,790m) completed in late 2014 which affirmed the uranium potential of EME's Manyingee East Prospect, located up-channel of Paladin's Manyingee deposit (see ASX release of 27<sup>th</sup> October 2014). Further exploration planning is underway for the upcoming season.

# Mopoke Well (EME 100%)

The Mopoke Well project, located 55km west of Leonora, contains two historic uranium prospects (Peninsula and Stakeyard Well) hosted by calcretised sediments associated with the Lake Raeside drainage system. An inferred category JORC (2004) resource estimate totalling 9.75Mt at 165ppm  $eU_3O_8$  for 1,613 tonnes or 3.56Mlb  $U_3O_8$  at a cut-off grade of 100ppm  $U_3O_8$  was obtained for the Peninsula deposit in 2013 (see ASX release of 12<sup>th</sup> March 2013).

During the quarter a retention licence (R29/1), covering resource areas and future potential mine infrastructure areas of the Mopoke Well project, was granted. There were no on-ground exploration activities during the period.

# Lakeside (EME 100%)

The Lakeside project is located in the Murchison district 20km west of Cue and comprises exploration licence E21/120. This project was acquired to follow up previously discovered surficial uranium mineralisation associated with calcrete and saline drainages. Aircore drilling campaigns were undertaken by EME in 2007, 2008, 2010 and 2012.

In June 2014 EME announced a Mineral Resource estimate of 2.74Mt at an average grade of 350 ppm  $U_3O_8$  for 960 tonnes or 2.12Mlb  $U_3O_8$  (200ppm  $U_3O_8$  cut-off grade); see ASX release of  $3^{rd}$  June 2014. The Mineral Resource is based on JORC (2012) definitions and the reported resource is classified as Inferred.

An application to convert resource areas of the existing Lakeside exploration licence into a retention licence was progressing during the quarter. There were no on-ground exploration activities during the period.

#### Anketell (EME 100%)

The Anketell project, located 50km west of Sandstone, comprises surficial calcrete-style mineralisation discovered by Western Mining (WMC) in 1972. Following completion of aircore drilling programs, the Company announced in July 2009 an initial JORC (2004) Inferred Mineral Resource of 2,720 tonnes (6Mlb)  $U_3O_8$  at a grade of 167ppm (100ppm cut-off).

During the quarter a retention licence (R58/2), covering resource and future potential mine infrastructure areas of the project, was granted. There were no on-ground exploration activities during the period.

#### Lake Mason (EME 100%)

The Lake Mason project, located 25km north of Sandstone, comprises shallow carnotite mineralisation hosted in calcrete and calcareous sediments associated with the Lake Mason drainage system.

In December 2010 the Company announced a JORC (2004) resource at Lake Mason of 9.1Mt @  $185ppm\ U_3O_8$  (at  $100ppm\ cut-off$ ) for  $1,689\ tonnes$  (3.7Mlb) of uranium, with 62% of the

resource reporting to the Indicated Category (refer to the ASX announcement of 17<sup>th</sup> December 2010 for further details).

During the quarter a retention licence (R57/2), covering resource and future potential mine infrastructure areas of the project, was granted. There were no on-ground exploration activities during the period.

# **CORPORATE**

Energy Metals remains in a strong financial position with approximately \$22.31 million in cash and bank deposits at the end of the quarter, forming a solid resource for ongoing exploration and project development.

2015 Annual General Meeting of Energy Metals was held on 28 May 2015. All resolutions were carried on a show of hands.

Ms Xuekun Li, the Company Secretary of Energy Metals, was appointed the Chief Financial Officer on 26 May 2015, following the resignation of Mr Xiaohua Song.

**Table 2:** Tenement Information as required by listing rule 5.3.3

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TENEMENT*	PROJECT	LOCATION	INTEREST	CHANGE IN QUARTER					
Northern Territory									
EL24451	Ngalia Regional	Napperby	100%	-					
EL24453	Ngalia Regional	Mt Doreen	100%	-					
EL24463	Ngalia Regional	Mt Doreen	100%	-					
EL24533	Ngalia Regional	Mt Doreen	100%	-					
EL24804	Ngalia Regional	Nyirripi	100%	partial surrender					
EL24806	Ngalia Regional	Mt Doreen	-	surrendered					
EL24807	Ngalia Regional	Mt Doreen	100%	-					
ELR46	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR47	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR48	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR49	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR50	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR51	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR52	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR53	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR54	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR55	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELR41	Malawiri Joint Venture	Napperby	52.1%	-					
ELR45	Walbiri Joint Venture	Mt Doreen	41.9%	-					
EL30002	Ngalia Regional	Mt Doreen	100%	-					
EL30004	Ngalia Regional	Mt Doreen	100%	-					
EL30006	Ngalia Regional	Mt Doreen	100%	-					
ELA27169	Ngalia Regional	Yuendumu	100%	-					
EL30144	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
EL30145	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
ELA24462	Ngalia Regional	Yuendumu	100%	-					
ELA24450	Ngalia Regional	Yuendumu	100%	-					
ELA24805	Ngalia Regional	Nyirripi	100%	-					
ELA27333	Macallan	Tanami	100%	-					
MCSA318-328	Bigrlyi Joint Venture	Yuendumu	53.3%	-					
MLNA1952	Bigrlyi Joint Venture	Yuendumu	53.3%	-					
ELA30689	Bigrlyi Joint Venture	Mt Doreen	53.3%	-					
Western Australia									
E08/1480	Manyingee	Yanrey	100%	-					
E21/120	Lakeside	Cue	100%	-					
E29/568	Mopoke Well	Leonora	-	surrendered					
E57/590	Lake Mason	Sandstone	-	surrendered					
E58/289	Anketell	Sandstone	-	surrendered					

E58/292	Anketell	Sandstone	-	surrendered
R(A)21/1	Lakeside	Cue	100%	-
R29/1	Mopoke Well	Leonora	100%	granted
R57/2	Lake Mason	Sandstone	100%	granted
R58/2	3/2 Anketell		100%	granted

<sup>\*</sup> EL = Exploration Licence (NT); ELA = Exploration Licence Application (NT); ELR = Exploration Licence in Retention (NT); ELRA = Exploration Licence in Retention Application (NT); MCSA = Mineral Claim (Southern) Application (NT); MLNA = Mineral Lease (Northern) Application (NT); E = Exploration Licence (WA); R = Retention Licence (WA); R(A) = Retention Licence application (WA).

# **Competent Persons Statement**

Information in this report relating to exploration results, data and cut-off grades is based on information compiled by Dr Wayne Taylor and Mr Lindsay Dudfield. Mr Dudfield is a member of the AusIMM and the AIG. Dr Taylor is a member of the AIG and is a full time employee of Energy Metals; Mr Dudfield is a consultant to Energy Metals. They both have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking 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 and Mr Dudfield both consent to the inclusion of the information in the report in the form and context in which it appears.

Information in this report relating to the determination of the gamma probe results and geophysical work is based on information compiled by Mr David Wilson. Mr Wilson is a member of the AusIMM and the AIG. Mr Wilson is a consultant to 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 "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)". Mr Wilson consents to the inclusion of the information in the report in the form and context in which it appears.