### EVOLUTION ENERGY MINERALS

# ASX ANNOUNCEMENT MOU for offtake and high-value downstream collaboration

**Evolution Energy Minerals ("Evolution" or the "Company")** is pleased to announce that the Company has signed a strategically significant Memorandum of Understanding ("MOU") with Chinese graphite products specialist Yichang Xincheng Graphite Co Ltd ("YXGC") for coarse flake offtake and downstream value-addition into high-value products. YXGC is the leading global producer of high value expandable graphite and graphite foil for the electronics industry.

#### **HIGHLIGHTS**

- Evolution has signed a strategically significant MOU with YXGC, the global leader in the manufacture
  of expandable graphite and associated high-value graphite products such as graphite foil.
- The MOU includes the key terms of a binding offtake agreement expected to be finalised in the coming weeks for 30,000 tonnes of Evolution's planned coarse flake graphite production over three years. This represents 56% of planned production and over 70% of concentrate revenue for the first three years.
- The MOU also sets out the parties' intentions to form a joint venture for the feasibility, construction
  and operation of a downstream manufacturing facility in Europe, utilising YXGC's technology to
  produce expandable graphite, graphite foil and other high-value graphite products. Current pricing
  of the value-added products is below:

Product	Price
Expandable graphite	Up to US\$6,500/t
Expanded graphite	Up to US\$13,000/t
Graphite foil	Up to US\$30,000/t

YXGC is a private manufacturing company founded in China that has grown to become the leading global supplier of graphite foil. Their products include graphite foil used in mobile phones, tablets and TV screens and they are presently leading the production of graphite foil currently being used in the production of green hydrogen. YXGC's clients include some of the world's most distinguished electronics and technology companies.

For Evolution, the MOU is a platform from which the Company can advance its coarse flake graphite strategy, which has a dual focus – initially selling flake graphite concentrate from the Company's Chilalo Graphite Project ("Chilalo") directly to YXGC and subsequently establishing a value-accretive downstream manufacturing facility in Europe producing high-value products, such as expandable graphite and graphite foil, increasing the overall value of Chilalo.

The collaboration to manufacture graphite products – a key element of the MOU – is a major step for Evolution as it seeks to position itself as a vertically integrated graphite company that combines the production of flake graphite concentrate with the manufacture of high-value graphite products such as expandable graphite and graphite foil at a European-based facility.

**Evolution Managing Director, Phil Hoskins, commented:** "We are delighted to sign this MOU with YXGC, a Company with whom we've cultivated a strong relationship over many years. We began the process of qualifying Chilalo graphite product with YXGC in 2015 and have conducted a number of visits to YXGC's ISO

certified facilities, which are leading edge in quality and safety. Whilst not a household name, YXGC's industry standing cannot be challenged, being the leading supplier of high-value graphite products to the world's most distinguished electronics and technology companies.

"Evolution is committed to supplying graphite only to customers who engage in value-addition, which makes YXGC the logical offtake partner for Evolution, given the several phases of value addition that they undertake beyond flake graphite concentrate.

"What really excites us is this second phase to our relationship, which advances the Company's unique strategy to target a diverse set of downstream products – fine flake for battery anodes and coarse flake for expandable graphite and foil. Both parties recognise that combining Chilalo's high-quality product with YXGC's industry-leading technology will ideally position our planned downstream operation to supply western customers with expandable graphite, graphite foil and a multitude of other high-value products. We will look to rapidly progress this highly value-accretive downstream facility in parallel with the development of the Chilalo Project. The Company will set out the planned production and target comments upon commencement of a feasibility study and the finalisation of the JV agreement."

#### **Proposed Offtake Agreement**

Chilalo's graphite has been the subject of extensive product qualification with YXGC since 2015. Chilalo produces a premium quality coarse flake concentrate, which has been confirmed to be suitable to produce graphite foils, fire retardants and other high-value products. Coarse flake graphite (comprising +100 mesh through to +32 mesh) accounts for approximately 65% of Chilalo's expected production and provides ideal feedstock for these products.

With the MOU in place, the parties have immediately commenced negotiations on a binding offtake agreement that among other things, is expected to include:

- An initial offtake term of three years from first delivery;
- A commitment from YXGC to purchase a fixed quantity of graphite over the term of the agreement (30,000 tonnes per annum representing approximately 56% of production over the first 3 years); and
- In addition to conditions that are customary for a binding offtake agreement, the offtake agreement would be conditional on the achievement of key milestones relating to the development of Chilalo.

The binding offtake agreement is expected to be executed in the coming weeks and is a key element to derisking project financing.

#### **Collaboration to Produce High-Value Graphite Products**

Under the terms of the MOU, the parties will work to put in place an agreement under which YXGC initially acts as Evolution's processing agent to toll-treat graphite concentrate from Chilalo into expandable graphite, graphite foil and other associated products for sale to western customers.

Working with YXGC, initially as Evolution's toll treating or processing agent requires no capital investment, leverages from existing processing expertise and provides the Company with immediate access to the lucrative and rapidly growing expandable graphite market. Expandable graphite produced as part of the toll-treatment arrangement, will be sold by Evolution to European and US based customers, with whom the Company has existing relationships.

In parallel with the toll treatment arrangement, but as a second phase to the development of Chilalo, the parties intend to jointly assess the feasibility, construction, and operation of a downstream manufacturing facility in Europe, applying YXGC's technology to produce expandable graphite, graphite foil and other high-value graphite products.

ev1minerals.com.au PAGE 2 OF 5

The production of expandable graphite and graphite foil are not capital intensive processes and as a result, adding value into these products is not expected to require significant additional investment by the Company.

Key aspects of the collaboration are summarised in the table below.

Term of MOU	Description	
Formation of joint venture	Evolution and YXGC intend to form a joint venture to assess the feasibility of establishing a facility for the manufacture of expandable graphite, graphite foils and other associated products.	
Site selection for manufacturing facility	Evolution will undertake a site selection study in Europe, the ker considerations for which include:	
	<ul> <li>Source and cost of power, with a particular focus on clear energy;</li> </ul>	
	<ul> <li>Access to chemicals used in the manufacturing process;</li> </ul>	
	<ul> <li>Timeframes for obtaining required permits and regulator approvals;</li> </ul>	
	<ul> <li>Environmental regulations;</li> </ul>	
	<ul> <li>Availability of government funding and tax incentives; and</li> </ul>	
	<ul> <li>Logistics, labour, and proximity to customers.</li> </ul>	
Feedstock	Evolution will provide graphite concentrate feedstock at market prices.	
Technology and equipment	YXGC will provide technical knowledge and equipment to the joint venture and ensure that the quality and installation of such equipment meets applicable international standards.	
Range of products	YXGC and Evolution will work together to manufacture expandable graphite, expanded graphite, graphite foil and other associated products primarily for sale in Europe.	
Marketing	YXGC will provide market support including from its existing customer database.	
Joint venture shareholdings	The parties' shareholding in the joint venture will be determined by their respective funding contributions and the overall value contributed by each party to the success of the joint venture.	

#### **ESG** and Sustainability

A core foundation for Evolution is that everything it does, is done safely, ethically, and in an environmentally friendly way. The development of Chilalo will deliver a lasting benefit to the surrounding local communities, and Tanzania more broadly, through the creation of employment, secondary business opportunities, education, training, and community investment.

The potential downstream development opportunities allow us to partner with a quality company with the technological expertise in the establishment of a new facility in Europe. As a new facility, Evolution will insist that it meets the same high levels of quality and environmental management as it demands from the development of Chilalo.

#### **Market Commentary**

The Company will provide a separate update regarding the targeted downstream products, their applications and pricing but in summary, the JV is expected to target the following:

ev1minerals.com.au PAGE 3 OF 5

- **Expandable graphite** Sold directly to western fire-retardant customers (up to US\$6,500/t);
- Expanded graphite Sold to battery manufacturers as a conductivity enhancement on the cathode side of the battery (up to US\$13,000/t);

#### **Graphite foil:**

- Sold to producers of electronic devices for use as a heat sink or in nuclear applications (up to US\$30,000/t); and
- Sold to Hydrogen battery manufacturers for use in the bipolar plates housing the cathode and anode in Hydrogen batteries.

As noted above, the potential development of these downstream products has the potential to materially increase the value of Chilalo to Evolution shareholders. Without access to proprietary technology such as that held by YXGC, the ability to capture these downstream margins is not feasible.

#### **About YXGC**

YXGC is located in Yichang, China. This region of China is famous for being the hydroelectric capital of the world and is one of the largest mineral processing areas in China.

YXGC is a global leader in the manufacture of graphite products, supplying to customers in Europe, North America, and Asia for over 20 years. Using coarse flake graphite, YXGC applies its in-house, proprietary technology to manufacture a range of high-value graphite products, including expandable graphite, fireretardant materials, foils, sheets, gaskets, and tape that are used in a wide range of industries. A recent picture of one of YXGC's graphite foil production lines is shown in Figure 1 below.

YXGC has three production lines producing 30,000 tonnes per annum of expandable graphite. The company also has ten production lines of flexible graphite foil panels with total production of 10,000 tonnes per annum, and eight sets of sealing material equipment producing 2,000 tonnes per annum of graphite seals. YXGC is building a new plant that will have production capacity of 10,000 tonnes per annum of expandable graphite and 12,000 tonnes per annum of graphite foil. The plant will be put into production in 2023.

YXGC is certified for ISO9001. The Company has core technologies with proprietary intellectual property rights, and strong product research and innovation ability. The Company currently has six invention patents and 23 utility model patents.

YXGC products are widely used in the petroleum and chemical industry, steel refining, electric power, metallurgy, machinery, automobile, ship building, pharmacy, aerospace, nuclear and, most significantly, a number of distinguished global electronic and technology companies.

YXGC products are distributed throughout China and exported to more than twenty countries around the world.

This announcement has been approved for release by the Evolution board of directors.

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PAGE 4 OF 5

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Figure 1: Graphite foil production line at YXGC's Yichang plant

## **ABOUT EVOLUTION (ASX:EV1)**





#### Development ready

Chilalo Graphite Project in Tanzania



#### 58% > 80 Mesh

World leading flake size = highest margins



#### Extensive product qualifications

Will result in quality offtakes and technology partnerships



#### Framework agreement

To provide Tanzanian government certainty



#### FID by H2 2022

Strategic ESG fund cornerstone support



#### Sustainable battery anodes

Non-HF, thermal puification program completed Q3



#### Carbon neutrality

Pursuing net zero carbon from day one

Evolution's vision is to become a vertically integrated company that will only supply sustainably sourced graphite products and battery materials.

This will be achieved by combining our unique graphite source with industry-leading technology partners, working closely with customers and producing diversified downstream products in both Tanzania and strategically located manufacturing hubs around the world. Evolution is committed to being global leaders in ESG and ensuring its operations support the push for decarbonisation and the global green economy.

