Cobalt Blue Holdings Limited
ACN: 614 466 607
Phone: +61 2 8287 0660
Address: Suite 17.03, 100 Miller St, North Sydney, NSW 2060
Website: www.cobaltblueholdings.com
Email: info@cobaltblueholdings.com
Social: Cobalt.Blue.Energy cobalt-blue-holdings

MEDIA RELEASE

SYDNEY, 7th June 2023

FOR IMMEDIATE RELEASE

Cobalt Blue Announces Kwinana Refinery Project (WA) to Advance Australian Supply of Critical Minerals to Global EV Battery Makers

Highlights

Cobalt Blue (ASX:COB) has now executed a non-binding agreement with a potential partner to advance its Kwinana Refinery Project. The partner is a leading Japanese multinational company that specialises in the production and trading of commodities.

US/EU legislation aimed at creating new critical minerals supply chains are now largely in place. Strong international incentives exist to support COB plans for its Broken Hill Cobalt Project (BHCP), its Kwinana Refinery Project and Cobalt in Waste Streams Projects (CWSPs).

The Kwinana Refinery Project:

- has defined a Stage 1 - 3,000 tpa cobalt/nickel refinery to treat 3rd party feedstock
- concept study has identified A$70m pre-production capital cost
- de-risks the BHCP by coming to market earlier (supporting battery industry "pre qualification") and lowers operating costs (access to lower cost reagents in the Kwinana District)
- can provide the "C" in future NCM or NCA precursor required to underpin the development of domestic Australian manufacturing to supply the rapidly growing international Electric Vehicle (EV) market.

Cobalt Blue's Chief Executive Officer, Joe Kaderavek said: "*This is a compelling opportunity for COB to grow rapidly as a key supplier to EU/US battery supply chains. We are leveraging our global commercial and investment standing added to 3 years of refining experience at our Broken Hill plant. COB has found a strong industry partner with both parties keen to examine a long-term relationship*."

The Cobalt Market and the Inflation Reduction Act (IRA)

Controlling ~75%/45% of global processing and extraction respectively, China dominates the cobalt market:

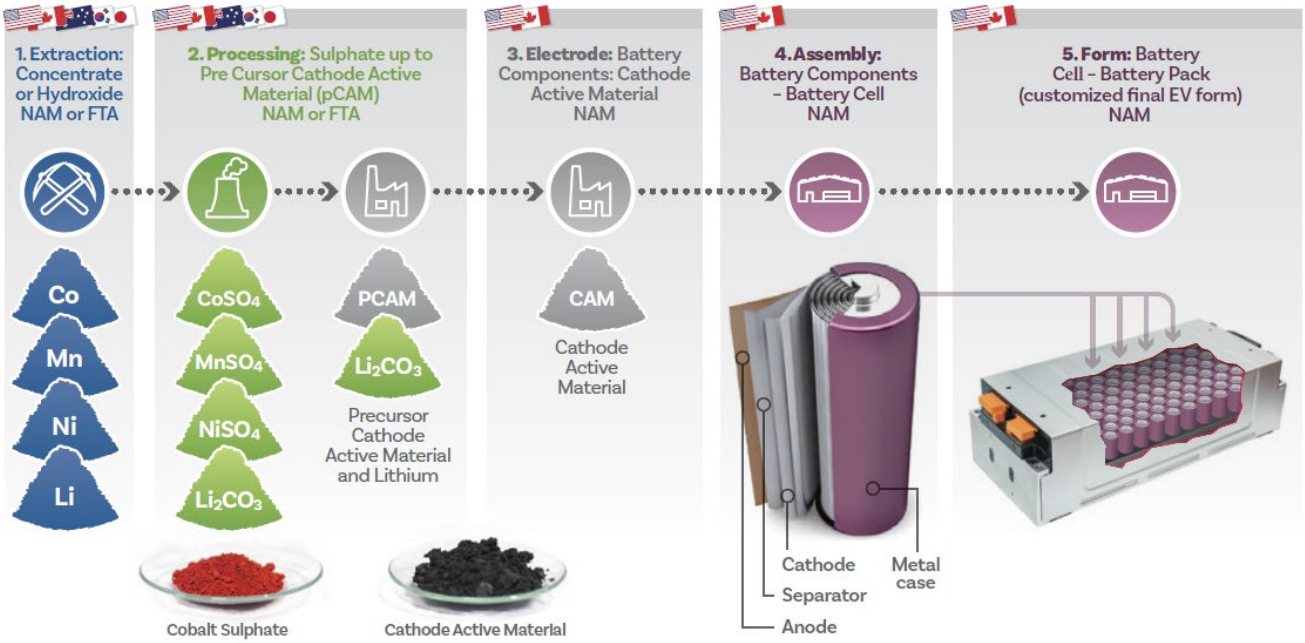
1. **Mining and extraction**: Entrenched partnerships with African nations that possess large cobalt resources, such as the Democratic Republic of Congo (DRC) – producing ~70% of global supply.

2. **Mineral processing**: China processes ~75% of the world's cobalt (almost exclusively from imports) into industrial products. In battery-grade cobalt, China controls ~90% of this market.

3. **Battery production**: China is the world's largest producer of lithium-ion batteries.

4. **Industry consolidation**: China has been actively consolidating the cobalt industry.

Cobalt is extracted (mined) then converted into a transportable, high value form. Over 70% of cobalt is traded as a cobalt hydroxide. The figure below highlights the key steps in the global cobalt mine to Electric Vehicle (EV) battery production chain overlaid with IRA Clean Vehicle Credit (CVC) nation eligibility (Free Trade Agreement country FTA or North America NAM). We note similarly focussed legislation is being drafted by the EU Commission.



Cathode Active Material

The CVC provides a US$3,750 tax incentive to the US consumer for purchasing an EV which contains a threshold level (peaking at 80% value definition by 2027) of critical minerals where production steps 1 and 2 or 2 alone are performed within an FTA country.

It is important to understand the significance of the US$3,750 CVC critical minerals sourcing tax credit. The (extraction and processing) cost of critical minerals (at long term prices) for a 60kWh Nickel Manganese Cobalt (NMC 8:1:1) Li ion battery is approximately US$2,400/vehicle. Note: Australia is the only country globally that produces all of these materials.

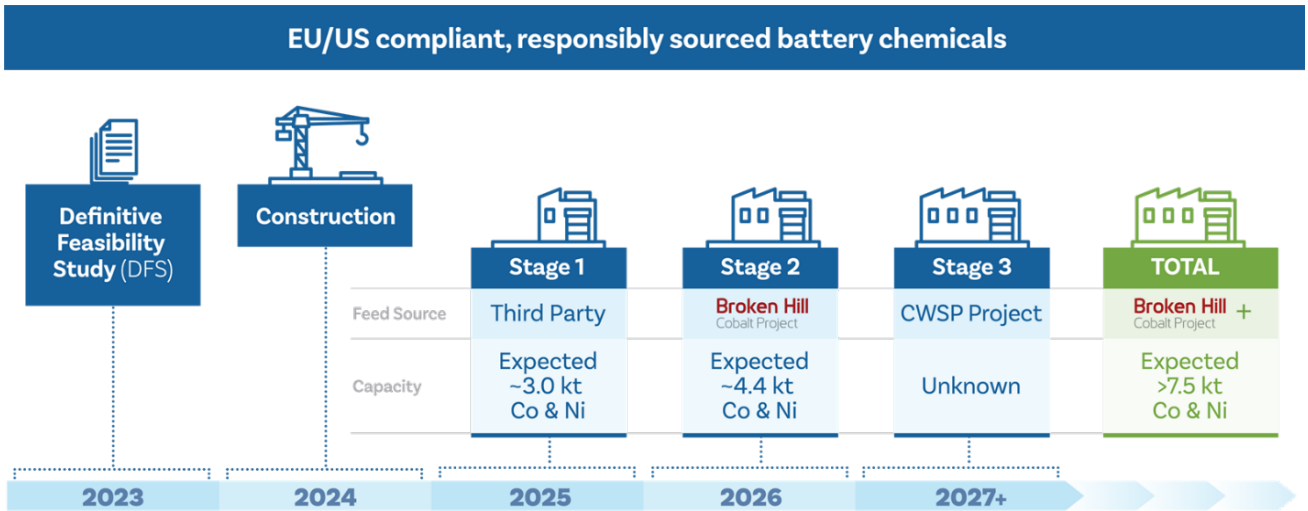
The IRA provides the following benefits to Australian industry:

1. **Clarity** – the US Government is targeting aggressive decarbonisation targets and thus providing a target window for Australia critical minerals mining and processing industries.
2. **Inclusion** – excludes Foreign Entities of Concern and non-FTA countries from participating in CVC credits - creates a target market for Australian industries.
3. **Collaboration** – the IRA Act creates clear industry points of cooperation from extraction to end customers, thus stimulating robust US centric supply chains.

The IRA Act window thus presents a strong opportunity to develop an element of the future Allied Nation production chain.

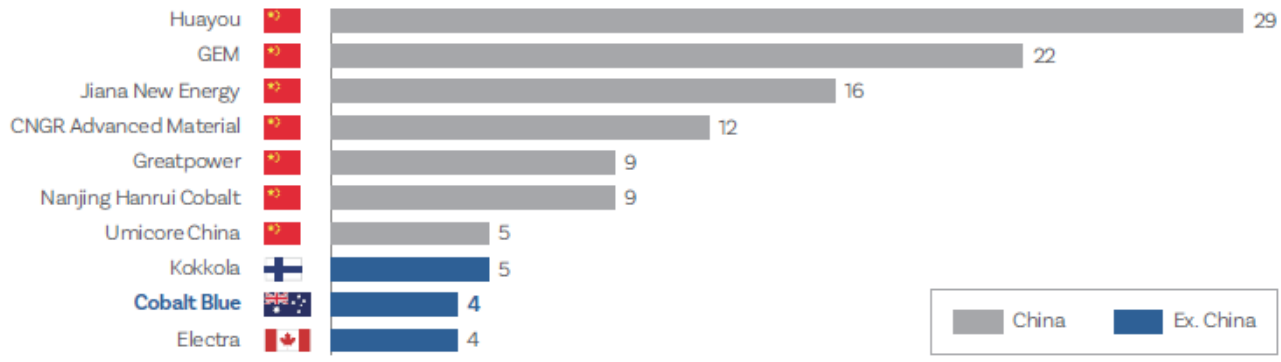
The Refinery Development Plan

A simple graphic of the refinery is included below. Stage 1 is based on third party feedstock whilst Stage 2 will be in-house feedstock from the Broken Hill Cobalt Project (BHCP). Stage 3 refers to future projects, for example a CWSP initiative.



A cobalt refinery of this scale is globally significant. In addition to cobalt, we are planning on processing nickel in the refinery. This would be sold as nickel sulphate crystals. We have included an illustrative 4,000 tpa (cobalt metal equivalent) refinery in the global comparison below:

Global Cobalt Sulphate Refinery Capacity



Source: Wood Mackenzie

Why Kwinana?

The Kwinana district presents strategic advantages for the refinery location:

- **Access to export markets**: Kwinana has a deep-water port and export facilities. Cobalt sulphate is a fragile product that absorbs water (particularly in hot/humid regional conditions) if left exposed and needs to be stored/shipped carefully. Direct port access provides a meaningful advantage.
- **Cost advantage**: Kwinana is a major chemicals district. Approximately 60-70% of the costs associated with conversion from MHP to cobalt sulphate come from reagent/chemical costs. This location provides ready access to lower cost chemicals.
- **Critical Minerals availability**: Australia is the only country that mines all four of the cathode elements. These metals are processed through Kwinana and so represents an ideal location to cooperate with battery industry peers to make cathode precursor or active cathode materials for global markets.

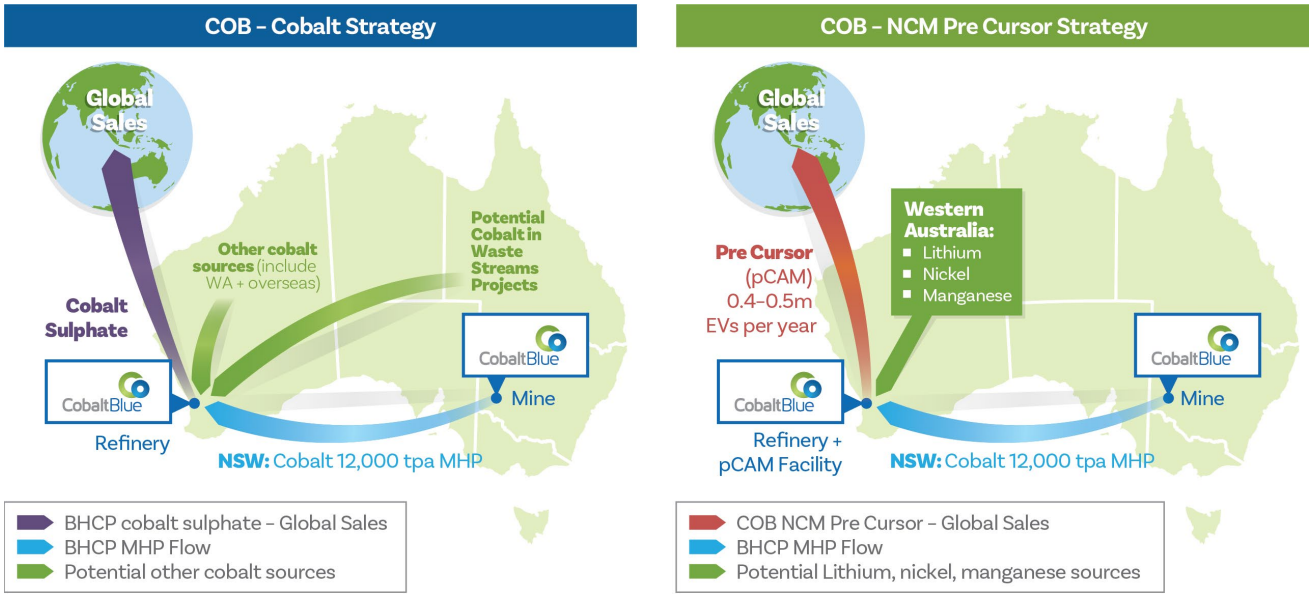
Why a Single Refinery?

Refining is fundamentally an economy of scale business. A single, larger refinery allows COB to process future material sourced from BHCP and (in future) other cobalt projects, rather than build out individual refineries at mine sites dispersed through Australia. The Kwinana Refinery Project will:

- **support BHCP** - producing ~12,000 tonnes of MHP per annum which equals ~ three rail wagons per week (~200 tonnes). The transcontinental railway line (linking Broken Hill with Kwinana) passes through our tenements.

- **support new Australian mining projects** (typically nickel/cobalt producers) that wish to enter the battery production chain. The projects are typically based in Western Australia.
- **provide easy port access for globally sourced materials** which will likely qualify for significant US and EU financial incentives if processed via an approved country. These materials also likely include nickel/cobalt feedstocks, and
- **support Cobalt in Waste Streams Project/s** (CWSP) producing Mixed Hydroxide Precipitate (MHP), which is easily transportable to Kwinana.

This overall strategy has been condensed into the graphics below:



Refinery Partner

COB has executed a non-binding agreement with a potential partner. Our potential partner is a leading Japanese multinational company that specialises in the production and trading of commodities.

Our potential partner has expanded its operations beyond Japan and has a global presence with subsidiaries and affiliates in several countries. They have established partnerships and collaborations with companies worldwide to further advance their expertise in technologies and explore new markets. The company has a large trading arm looking to supply their Japanese partners in major global Electric Vehicle markets, including the United States.

The company owns a suitable property in the Kwinana district that would support the operation of the cobalt/nickel Refinery Project. Partnering with an existing property owner would substantially reduce development time for the Refinery Project. The company is currently determining an appropriate level of equity ownership in the Refinery Project via a funding contribution.

Full disclosure of the parties and the final terms of this potential partnership will be publicly released when a binding agreement is executed.

Likely Development Costs and Timetable.

COB has completed a concept study of a 3,000tpa cobalt/nickel refinery in the Kwinana district. This study will be followed by a Feasibility Study to be delivered later in 2023 (it was already part of the existing BHCP DFS).

The concept study shows a Kwinana Refinery Project ~A$70m pre-production capital cost which assumes the refinery is fitted into an existing industrial land parcel. The capital amount will likely be shared between Kwinana Refinery Project partners. Domestic and international government interest is also being examined.

BHCP Impact - Kwinana Refinery Project

COB believes that a WA-based refinery will not impact BHCP efficiency as there is no common equipment shared by mine-to-MHP processing and MHP to cobalt sulphate processing. In addition, MHP produced at the Broken Hill based mine is not challenging to store and transport long distances. Since the final product after refining, cobalt sulphate, is delicate (temperature sensitive and hygroscopic) a port location is more ideal for the Refinery Project.

COB believes that a Kwinana refinery will result in a slight increase to previously guided capex for BHCP. The initial refinery plan was to build capacity to refine BHCP output (~3.5ktpa Co equivalent). A Kwinana refinery will be on a larger scale, in order to treat BHCP and 3rd party feedstock, thus providing an economy of scale build-out and reducing operating costs. COB is targeting an existing Kwinana footprint that will lower site/construction costs as well as equipment delivery costs (vs building the refinery in Broken Hill).

Finally, it is COB's expectation that transporting MHP to WA will likely reduce operating costs. The initial strategy was to refine MHP to sulphate in Broken Hill and transport sulphate to port. The cost of transporting MHP to Kwinana is less than that of sulphate given sulphate's delicate nature. Furthermore, refining costs are expected to be lower than initially planned due to the availability of reagents and chemicals in the Kwinana district.

COB is targeting commencing Kwinana Refinery Project operations in 2025, likely before the BHCP commences full-scale operations in 2026. We are evaluating multiple options for feedstock for the Kwinana Refinery Project.

Media Contact:
Andrea Roberts
Communications and Engagement Manager
Email: andrea.roberts@cobaltblueholdings.com