Market Update

CobaltBlue
green energy technology

26 February 2024

Cobalt Blue Holdings Limited

A Green Energy Exploration Company

ASX Code: **COB**

Commodity Exposure:

Cobalt & **Sulphur**

Directors & Management:

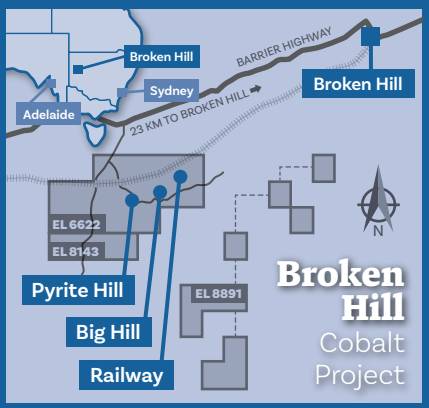
Robert Biancardi	Non-Exec Chairman
Hugh Keller	Non-Exec Director
Robert McDonald	Non-Exec Director
Joe Kaderavek	CEO & Exec Director
Danny Morgan	CFO & Company Secretary

Capital Structure:

Ordinary Shares at 26/02/2024:	**375.8m**
Unlisted options/rights:	**5.8m**
Market Cap (undiluted):	**$68m**

Share Price:

Share Price at 26/02/2024:	**$0.18**



Cobalt Blue Holdings Limited

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Highlights

BHCP and Refinery Update

KEY POINTS

- Cobalt Blue is delighted to announce Iwatani Corporation as our potential partner in developing the Broken Hill Cobalt Project (BHCP) executed via a Heads of Agreement (HoA). While the HoA is non-binding it cements the shared strategic vision for both BHCP and the Kwinana Refinery Project (Refinery) and provides a pathway to executing a binding agreement between parties.
- Under current and near-term metal pricing forecasts, the current size and configuration of the BHCP (as outlined in Project Update 2020) is presently unlikely to attract project financing. The COB Board has therefore commissioned a strategic review (Review). The Review will focus on a condensed, higher-margin project. The aim is to assess the viability of a smaller project and provide an option for development if future market pricing persists at subdued levels.
- COB's view remains that the cobalt market will tighten, and fundamentals will improve, supporting higher long-term sustainable metal pricing compared to current levels.
- The Refinery Development Program has progressed, sourcing a broad range of cobalt rich materials representing global cobalt supply, and has begun processing this feedstock to target battery-grade cobalt sulphate. These large-scale samples will be used for initial Refinery qualification.

Kan Ueda, Managing Director, Iwatani Australia commented "Iwatani Australia is pleased to further engage with Cobalt Blue to develop the Broken Hill Cobalt Project. We see strategic value in developing a large-scale cobalt mine and integrating this feedstock into the Kwinana Refinery Project".

Joe Kaderavek, CEO Cobalt Blue commented "Cobalt Blue is excited to have a potential partner of the calibre of Iwatani Corporation. We share a common view of Australia as a supplier to the global battery industry and look forward to developing both projects with Iwatani".

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1 BHCP – Potential Project Partner Announced

Cobalt Blue is delighted to announce Iwatani Corporation as our potential partner in developing the BHCP (subject to final agreement). Iwatani Corporation is already a potential partner for the Refinery (see ASX Announcement 01 December 2023: Iwatani Corporation to partner on Cobalt-Nickel Refinery). Finalisation of a binding agreement would align both projects, enabling the Refinery to commence and expand production, initially with third-party feedstock (target date late 2025), potentially followed by any BHCP-sourced cobalt intermediate feedstock. This staged expansion of an integrated BHCP and Refinery will potentially create a Top 10 global cobalt refinery.

Iwatani Corporation is a leading Japanese multinational company specialising in the production and trading of commodities. Iwatani has a global presence with operations in several countries. They have established partnerships and collaborations with companies worldwide to advance their technology expertise further and explore new markets. Iwatani also has a large trading arm that procures lithium, cobalt, manganese, and other raw materials worldwide for use as cathode material that is supplied to their Japanese partners in major global Electric Vehicle markets, including the United States. Iwatani has a market capitalisation of approximately US$3 billion.

Iwatani, through its Australian operations, has been producing titanium minerals and zircon sand products at its mineral sands operations in Western Australia and is a zirconia producer with downstream processing operations, transforming zircon sand to high value zirconia products.

Project contributions are not defined in the HOA and are yet to be agreed upon between parties. COB and Iwatani will use their best endeavours to enter into binding agreements on or before 30 April 2026, covering matters such as:

- The establishment of a special purpose joint venture company to own and operate BHCP.
- an investment agreement where the parties agree to provide equity and arrange debt financing required for the construction of BHCP.
- product marketing and offtake arrangements.
- the determination of the consideration Iwatani will pay to enter the joint venture.
- the terms for COB's role as manager of the joint venture and the operation of joint venture operations generally.

COB will meet the costs of producing a DFS and Independent Expert Technical Due Diligence Report required for consideration by Iwatani. The parties have also agreed to enter an exclusivity arrangement applying to no later than 30 April 2026, unless terminated earlier by agreement.

2 BHCP – Review

The technical work packages defining the BHCP Definitive Feasibility Study (DFS) are nearing completion however, given current battery minerals pricing, particularly cobalt metal trading at US$12–14/lb, as well as the current inflated capital cost environment, the BHCP (in its current form) is presently unlikely to attract project financing.

Rather than deliver a DFS that effectively "sits on the shelf", waiting for a future upturn in the macro environment, the COB Board has paused completion of the DFS (in its current form) and requested management to undertake a Review to assess the viability of a condensed higher margin project. The Review will likely make substantial use of the extensive library of technical studies, reports and other work undertaken for the DFS and will include:

1. Reducing the mining inventory to higher grade material,
2. Targeting lower strip ratios by reducing the pit sizes
3. Targeting lower start-up capital costs by optimising mining fleet, supporting infrastructure, and process plant throughputs of 1–3 mtpa
4. Targeting a starter project with a minimum operating life of 10–12 years, with optionality to continue thereafter should economics be favourable.

The progressive completion of technical studies supporting the current form of the BHCP will naturally reduce expenditure on external technical consultants. In addition, staff reductions will be undertaken to create a fit-for-purpose headcount for progression of the BHCP Review, the Refinery Pre-Development Studies and assessment of Cobalt in Waste Streams Projects.

The studies underpinning the previously released estimates of Ore Reserves may change in the Review. Accordingly the Company hereby withdraws those Ore Reserve estimates.

However, the Company confirms it is not aware of any new information or data that materially affects the information included in the BHCP Resource Update, dated 30 November 2023 (see ASX Announcement 30 November 2023: Market Update: Broken Hill Cobalt Project Mineral Resource Estimate) and all material assumptions and technical parameters underpinning the previously released estimates of Mineral Resources continue to apply and have not materially changed.

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3 Cobalt Market Update

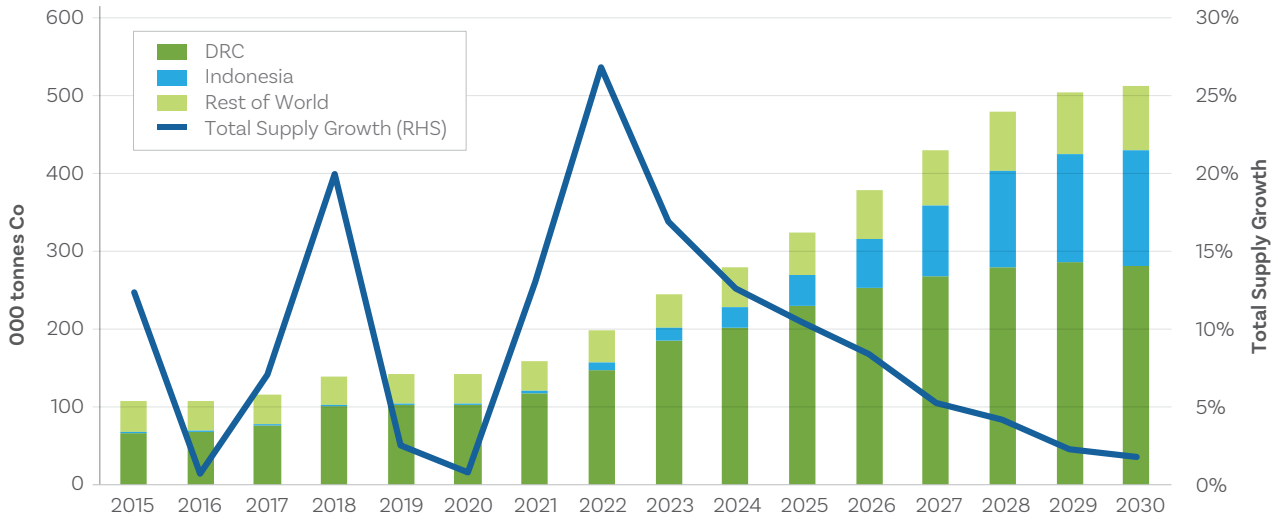
Supply rebalance underway

The current weakness in cobalt pricing is a result of high supply growth following a period of over-investment in a low interest rate environment. The compound annual growth rate (CAGR) of global mined supply from 2021-2023 was an extraordinary 14%. This compares to historical CAGR of cobalt supply growth of 4%[1].

The origin of this growth has been consolidated in two countries where cobalt is a by-product in vast copper (Democratic Republic of Congo/DRC), and nickel capacity expansions (Indonesia).

However, these dynamics are beginning to shift as part of a natural supply and demand readjustment. In late 2023/early 2024, a number of producers responded to lower prices by curtailing several Australian operations, slowdowns and stockpiling in some mines in the DRC, and the cancellation of a nickel/cobalt HPAL project in Indonesia. Consequently, global cobalt supply growth peaked in 2022 and is expected to slow for the foreseeable future.

Figure 1 – **Global cobalt supply, 2015-2030**



Source: Benchmark Minerals Intelligence, Cobalt Blue

Demand diversifying, not disappointing

The outlook for Electric Vehicle (EV) sales remains robust. Industry expert Rho Motion forecasts EV sales to grow in 30% in 2024 to 18m as more models become available and purchasing incentive programs expand across the world. Importantly for the cobalt market, Nickel Cobalt Manganese (NCM) cathodes are the dominant battery chemistry in the North American and European markets where growth in EV sales is the strongest. Non-cobalt/nickel bearing Lithium Iron Phosphate (LFP) cathodes make up just 12% market share in US and Canada and a mere 5% in Europe. Factoring in an average global market share of 46% for LFP chemistry, cobalt demand in batteries is expected to see a CAGR of 16% between 2023-2030.

1 *For the period 1990-2020*

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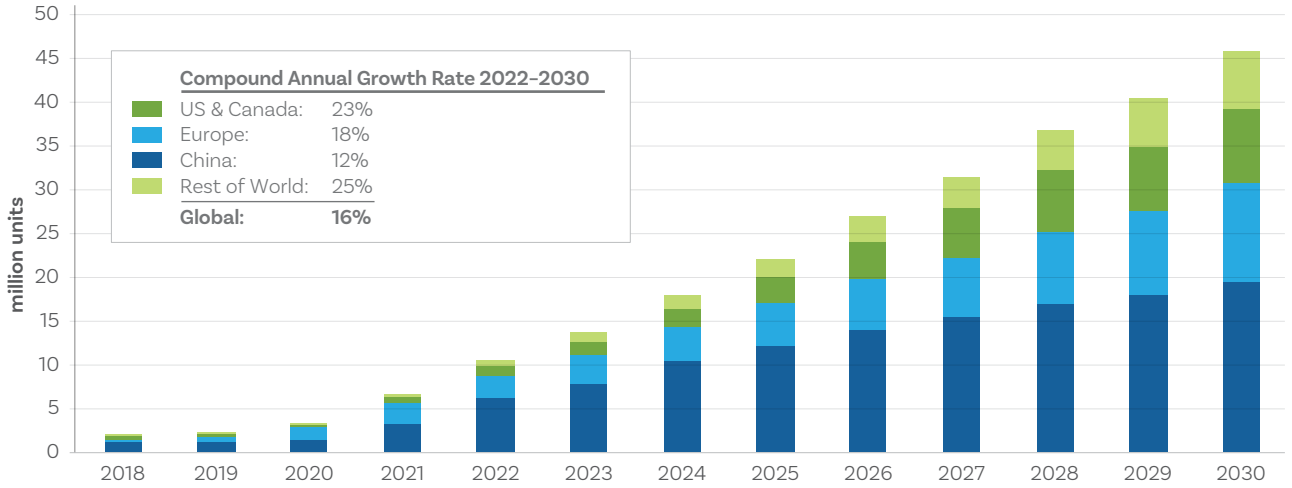
Figure 2 – **Global electric vehicle sales, 2018-2030**

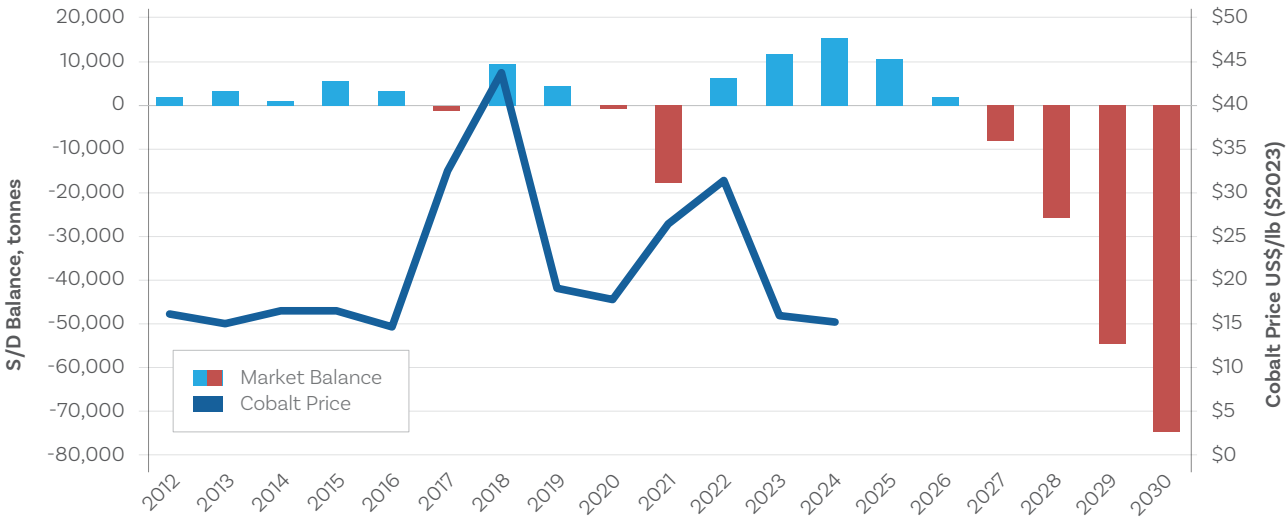


Source: Rho Motion, Cobalt Blue

Looming Deficits

The global cobalt market is now undergoing a period of rebalance as demand continues to expand and the project pipeline normalises. A supply deficit is expected to emerge from 2027 and past price performance during such phases of imbalance suggests a progressive recovery of cobalt prices. Our specialist mineral economist consultant, Benchmark Minerals Intelligence, forecasts a real term market pricing recovery over the next decade to US$27/lb for cobalt in metal.

Figure 3 – **Global cobalt supply and demand market balance vs price, 2012-2030**



Source: Benchmark Minerals Intelligence, Wood Mackenzie, Cobalt Blue

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4 Refinery Project – Testwork Update

COB has previously announced the Refinery Development Program (See ASX announcement 3 August 2023: COB Market Update: Demonstration Plant success. Refinery Development Program launched), sourcing a broad range of cobalt rich materials representing global cobalt supply, and processing this feedstock to target battery grade cobalt sulphate. The objective is to trial up to 5 tonne samples from third-party suppliers and produce cobalt sulphate on a 1:50 scale basis. These feedstocks are expected to be similar to future commercial feedstock arrangements under which the Refinery is expected to operate.

We are pleased to announce that testing of third-party feedstock has progressed through to the first large scale production of cobalt sulphate. Samples have been produced as shown in the figure below. These will be evaluated by prospective offtakers, including leading PCAM manufacturers (names withheld due to commercial in-confidence).

Figure 4 – **Refinery Project – Cobalt Sulphate produced from Commercial third party feedstock**

Source: Cobalt Blue

Process optimisation to support detailed engineering design continues, with testing expected to continue through 1H 2024. Focus continues on equipment and operating parameters for scale up to commercial throughputs, reagent and power consumptions, reliability of trace metal removal, and development of documentation for commercial operations.

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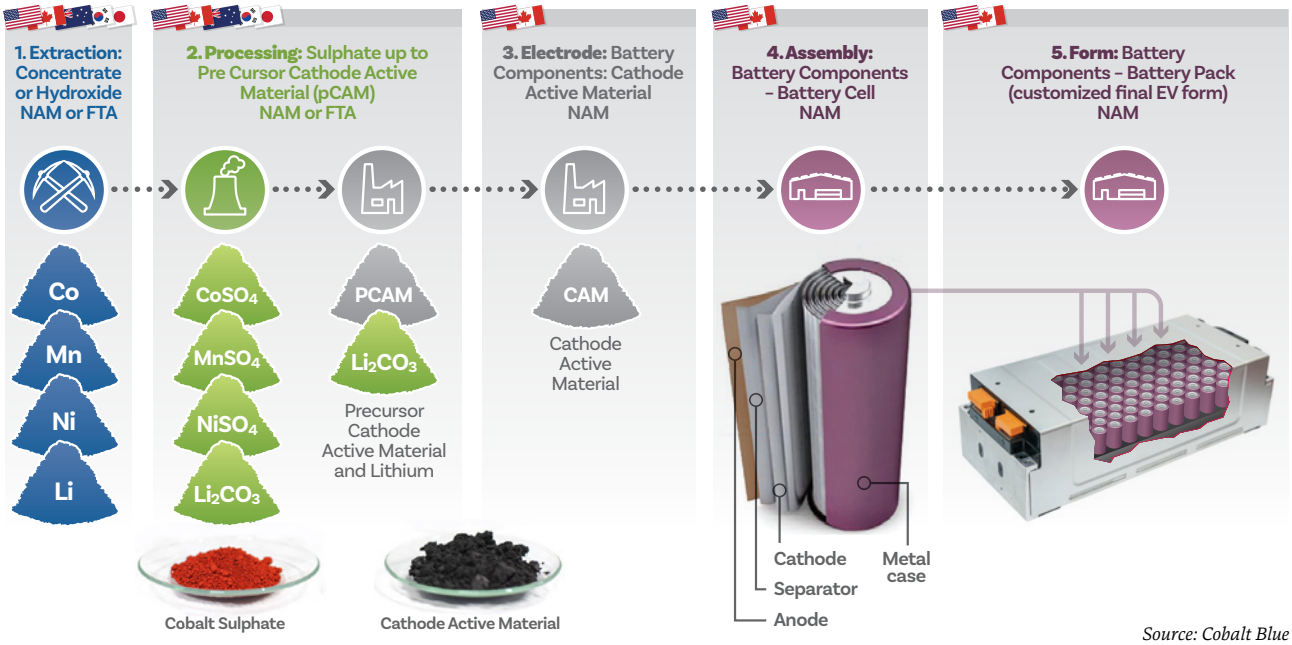
5 Refinery Project – IRA Dynamics

Globally, cobalt is extracted (mined) and then converted into a transportable, high-value form. Over 70% of cobalt is traded as a cobalt hydroxide (typically 26–40% cobalt content), with the market dominated by the Democratic Republic of the Congo (DRC). The figure below highlights the key steps in global cobalt processing into the Electric Vehicle (EV) battery production chain.

Figure 5 – **Key steps in global cobalt processing into the Electric Vehicle (EV) battery production chain**



Source: Cobalt Blue

The United States offers US purchasers of electric vehicles (EVs) produced or assembled in North America a Clean Vehicle Credit (CVC) (tax credit) of up to US$7,500 per vehicle. To qualify, the vehicle must satisfy several requirements including:

1. At least 70%, by value, of the total critical minerals (cobalt and nickel are defined as critical minerals) contained in EV batteries placed in service in 2026 (increasing to 80% from 2027) must be extracted or processed in the United States, Australia or another country with which the US has a Free Trade Agreement (FTA).
2. Starting in January 2025, EVs with batteries that contain critical minerals that are extracted, processed or recycled by a "Foreign Entity of Concern" (FEOC) (company owned or controlled by North Korea, China, Russia or Iran) will not qualify for EV tax credits.

The EV tax credits expire for EVs placed in service after 2032. COB's review and conceptual analysis of the IRA regulations and guidelines in relation to the processing of feedstock at the Refinery are as follows:

Refinery Feedstock Source Material / Processing	IRA CVC Implications[2]
a. Australian extracted material Critical Minerals extracted within Australia and processed at the Refinery.	CVC requirements are satisfied.
b. Other FTA country extracted material Critical Minerals extracted in a US FTA Country and processed at the Refinery.	CVC requirements are satisfied.
c. Non-FTA country extracted material Critical Minerals extracted in a non-FTA country and processed at the Refinery – provided Refinery processing and subsequent processing in the US or an FTA country accounts for >50% of the valued added through processing[3].	CVC requirements are satisfied.

In the near future, COB intends to seek, in conjunction with a US EV manufacturer/taxpayer and a leading US Tax consultancy firm, a private letter ruling from the IRS (ATO equivalent) to confirm that the 3 scenarios set out above satisfy the CVC requirements.

2 *Based on no involvement by a Foreign Entity of Concern, current proposed US tax regulations and no changes to the IRA or associated legislation.*

3 *Note: Japan has recently been granted US FTA Status for the purposes of the IRA. Iwatani Corporation is a Japanese company.*

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About Cobalt Blue

Cobalt Blue is a mining and mineral processing company focussed on the development of a Cobalt-Nickel Refinery in Western Australia, the Broken Hill Cobalt Project in New South Wales, and Cobalt in Waste Streams Projects with a view to global opportunities contained in mine waste.

This announcement contains "forward-looking statements". All statements other than those of historical facts included in this announcement are forward-looking statements. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include but are not limited to the ability to reach binding agreement on the proposed terms or at all, cobalt metal price volatility, timely completion of project milestones, funding availability, government and other third-party approvals. Readers should not place undue reliance on forward-looking statements. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement".

Looking forward, we would like our shareholders to keep in touch with COB updates and related news items, which we will post on our website, the ASX announcements platform, as well as social media such as Facebook (f) and LinkedIn (in). Please don't hesitate to join the 'COB friends' on social media and to join our newsletter mailing list at our website.

This announcement was authorised for release to the ASX by the board of Cobalt Blue Holdings Limited.

For further information, please contact:

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Previously Released Information

This ASX announcement refers to information extracted from the following reports, which are available for viewing on COB's website http://www.cobaltblueholdings.com.

- 01 December 2023: Iwatani Corporation to partner on Cobalt-Nickel Refinery
- 27 November 2023: COB to Progress Cobalt Nickel Refinery Project in 2024
- 03 August 2023: Demonstration Plant success. Refinery Development Program launched.

COB confirms it is not aware of any new information or data that materially affects the information included in the original market announcement, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters under-pinning the estimates in the relevant market announcements continue to apply and have not materially changed. COB confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcement.