



Clean TeQ Sunrise
Critical raw materials
for the battery revolution

BMO Global Metals & Mining Conference

24 - 27 February 2019



Cautionary statement

Certain statements in this presentation constitute “forward-looking statements” or “forward-looking information” within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of Clean TeQ Holdings Limited (the “Company” or “Clean TeQ”), the Clean TeQ Sunrise Project (“Sunrise”, the “Project” or the “Sunrise Project”), or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as “may”, “would”, “could”, “will”, “intend”, “expect”, “believe”, “plan”, “anticipate”, “estimate”, “scheduled”, “forecast”, “predict” and other similar terminology, or state that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. These statements reflect the Company’s current expectations regarding future events, performance and results, and speak only as of the date of this presentation.

Statements in this presentation that constitute forward-looking statements or information include, but are not limited to: statements regarding the negotiation and conclusion of further offtake agreements; the settlement of completion of a term sheet from the MLA group prior to the FID; the potential investment by a strategic investor and/or additional financing; completing of final design and detailed engineering work; making a Final Investment Decision; statements relating to the timing of commencement and/or completion of construction of the Clean TeQ Sunrise Project, commissioning, first production and ramp up; and the potential for a scandium market to develop and increase.

In addition, all disclosure in this presentation related to the results of the Sunrise Project’s Definitive Feasibility Study (the “DFS”) announced on June 25, 2018, constitute forward-looking statements and forward-looking information. The forward-looking statements includes metal price assumptions, cash flow forecasts, projected capital and operating costs, metal recoveries, mine life and production rates, and the financial results of the DFS. These include actual statements regarding the Sunrise Project IRR; the Project’s NPV (as well as all other before and after taxation NPV calculations); life of mine revenue; average annual EBITDA; capital cost; average C1 operating cash costs before and after by-product credits; proposed mining plans and methods, the negotiation and execution of offtake agreements, a mine life estimate; project payback period; the expected number of people to be employed at the Project during both construction and operations and the availability and development of water, electricity and other infrastructure for the Sunrise Project, as well as the indicative project schedule.

Readers are cautioned that actual results may vary from those presented.

All such forward-looking information and statements are based on certain assumptions and analyses made by Clean TeQ’s management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; changes in investor demand; the results of negotiations with project financiers; the failure of parties to contracts to perform as agreed; changes in commodity prices; unexpected failure or inadequacy of infrastructure, or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Other important factors that could cause actual results to differ from these forward-looking statements also include those described under the heading “Risk Factors” in the Company’s most recently filed Annual Information Form available under its profile on SEDAR at www.sedar.com.

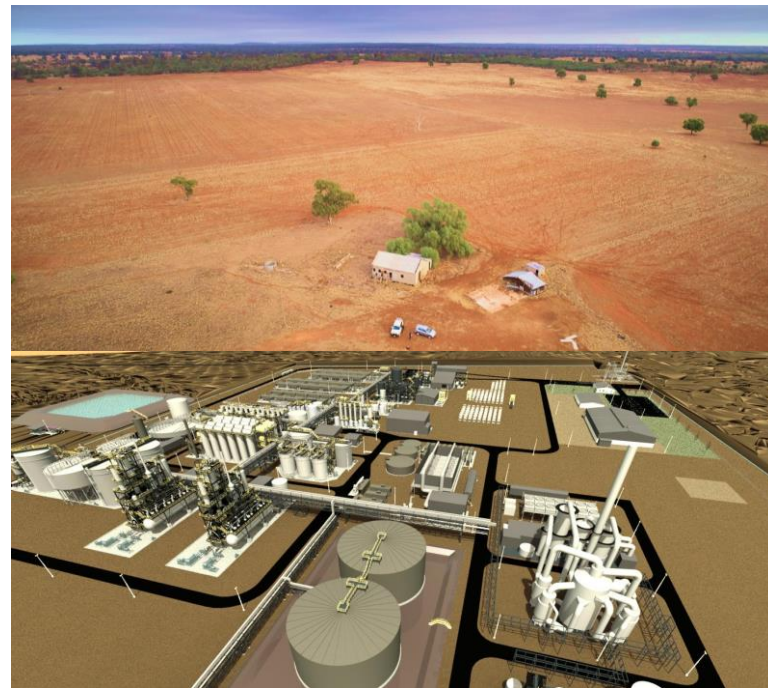
Readers are cautioned not to place undue reliance on forward-looking information or statements.

Although the forward-looking statements contained in this presentation are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this presentation and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this presentation.

Our vision is to empower the clean revolution

Critical raw materials for electric vehicles and energy storage

- Advancing development of the **Clean TeQ Sunrise nickel, cobalt and scandium project** in NSW, Australia
- Clean TeQ Sunrise will produce **critical raw materials** for the rapidly growing lithium-ion battery industry
- One of the **highest grade and largest nickel and cobalt deposits** outside of Africa
- Definitive Feasibility Study completed, demonstrates a **highly economic project** with outstanding technical foundations
- Engineering and design underway with **construction expected to commence in 2019**



The battery revolution

Driving raw material demand

Electric vehicles around the corner

China's CATL, Honda plan to co-operate on EV battery development

5 Feb 2019, Reuters

BYD all-electric trucks and vans coming to Europe

31 Jan 2019, Electrive

John Deere premiers electric tractor in action

12 Dec 2018, Electrive

SK Innovation Eyes \$10 Billion Battery Bet After Major VW Order

9 Jan 2019, Bloomberg

Panasonic eyes upstream investments to secure battery raw materials

5 Feb 2019, S&P Global

Škoda preparing for electric launch with €2 billion

7 Feb 2019, Electrive

Shell snaps up Greenlots to accelerate electric vehicle charging networks across North America

31 Jan 2019, VentureBeat

Ford says carmakers may need to invest in cobalt mines soon

5 Feb 2019, Mining.com

Volvo Trucks teases upcoming new all-electric semi truck

12 Dec 2018, Electrek

An All-Electric Ford F-150 Pickup Truck Is Happening

17 Jan 2019, Car and Driver

China's CATL plans battery cell production of 60 GWh from 2026 at German plant

23 Jan 2019, Reuters

Toyota, Panasonic announce battery venture to expand electric vehicle push

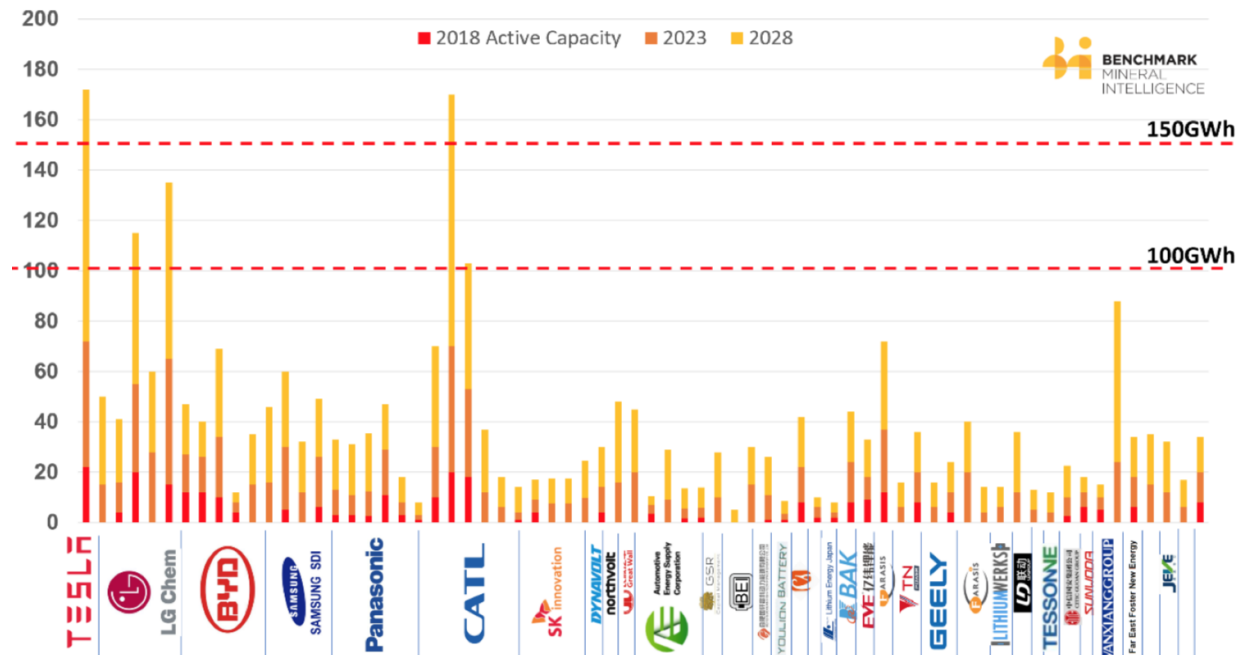
22 Jan 2019, The Globe and Mail

Daimler is buying over \$20 billion in battery cells to support electric vehicle plans

11 Dec 2018, Electrek

Megafactories being built now

Significant increase in Li-ion battery capacity from 2018 to 2028



Source: Benchmark Mineral Intelligence (5 Feb 2019 written testimony to US Senate Committee on Energy and Natural Resources Committee)

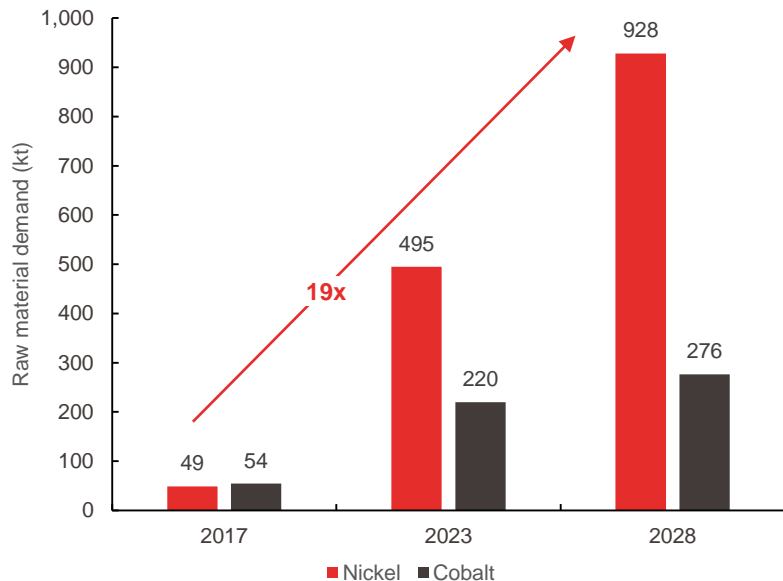
- Benchmark Mineral Intelligence is tracking **70 megafactories currently under construction**
 - **46 based in China**
 - In October 2017, only 17 under construction
- Megafactories will make **Li-ion batteries** with two specific chemistries
 - **NCM** (nickel-cobalt-manganese)
 - **NCA** (nickel-cobalt-aluminium)
- Significant impact for four critical raw materials: lithium, **nickel, cobalt** and graphite

Supply of battery raw materials will be challenged

New sources of nickel and cobalt are required

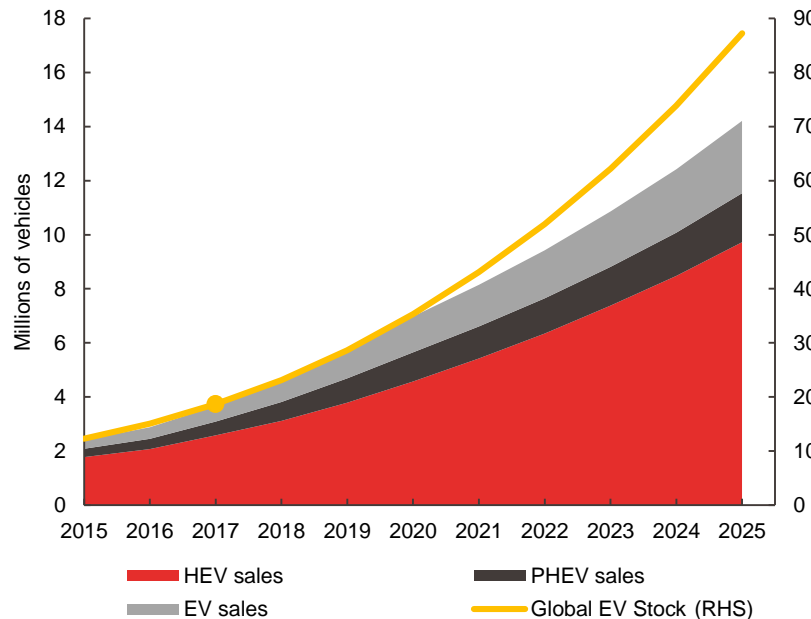
Projected megafactory demand

(at 100% utilization)



Source: Benchmark Mineral Intelligence (5 Feb 2019 written testimony to US Senate Committee on Energy and Natural Resources Committee)

Global EV sales projections



Source: Wood Mackenzie

Largest demand pull from China

Emissions controls legislation driving the agenda

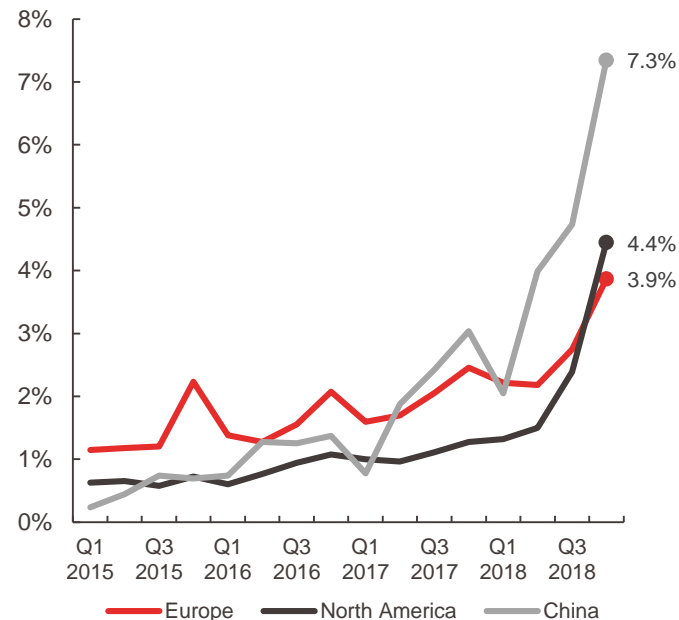
- **The shift to New Energy Vehicles (NEV) is here!**
 - NEV mandate is effective in 2019
- Credit based system targeting: **10% EV (2019), 12% (2020)**
- EV subsidies based on vehicle range:
 - **¥50,000 (~US\$7,400) for EV range \geq 400 km**

BYD Yuan EV360



Price	US\$12,500 (after subsidies)
Battery	42 kWh
Power	160 kW
Range	305 km
Features	In-car wifi, auto air conditioning, cruise control, multi-function steering wheel, leather seats, smart charging and scheduled charging, 8 airbags, tire pressure detection, ESP

EV vs. total passenger vehicle sales



Source: China Association of Automotive Manufacturers, Bloomberg NEF

Nickel sulphate capacity needs to grow

- Electric vehicles are **heavy consumers of nickel sulphate** irrespective of battery chemistry
- Next generation lithium ion batteries will be **more nickel intensive**
- **Less than 50%** of current global nickel production is suitable for battery applications (Class 1 nickel)
- Lack of new Class 1¹ sulphate developments are leading to a **sustained sulphate premium** over LME nickel price



* Refer to endnotes.

Significant nickel supply growth needed – Vale

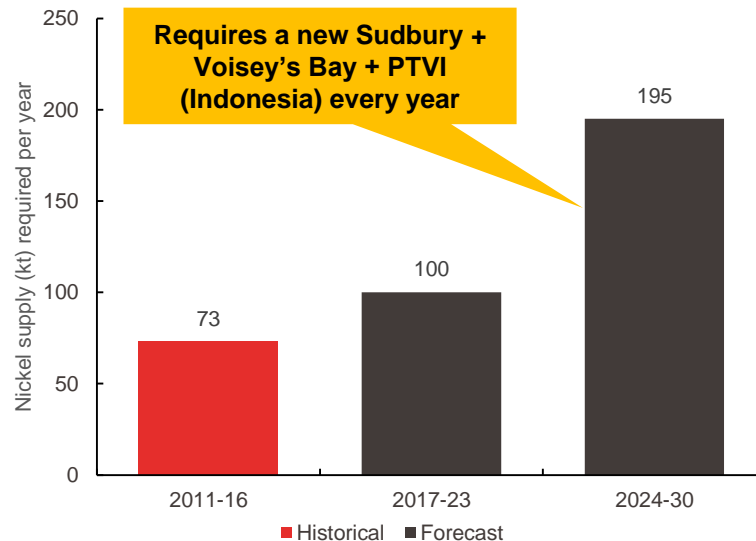


Chart source: Vale Day 2018 presentation (6 December 2018, slide 62).

Historical data source: Wood Mackenzie.

Forecast data source: Vale analysis built on Wood Mackenzie, CRU, public announcements, academic papers and conversations with downstream producers.

Cobalt supply is highly constrained

- **Majority of global cobalt sourced from DRC** presenting major supply risk for end users
 - Security of supply
 - Auditability of supply chain
- 95% of production comes as a **by-product of copper or nickel production**
 - Higher cobalt price doesn't necessarily incentivise new cobalt production
- **Political, legal and regulatory challenges** in DRC



Cobalt Production – Global Rankings

MINE	COUNTRY	2017 ESTIMATED TONNES
Mutanda	DRC	24,500
Tenke Fungurume	DRC	16,400
Katanga	DRC	11,000
Huayou Cobalt	DRC	6,300
Norilsk	Russia	4,900
Clean TeQ Sunrise*	Australia	~ 4,620 p.a. (years 2 – 6 post ramp up)
Ruashi	DRC	4,600
Moa Bay	Cuba	3,600
Big Hill	DRC	3,600
BOSS Mining	DRC	3,300
Vale	New Caledonia	3,200
Murrin Murrin	Australia	2,800
Taganito	Philippines	2,800
Artisinal	DRC	More than 20,000

Source: Public data, Darton Cobalt Market Review 2017, Clean TeQ estimates

*Average annual production based on 2018 Definitive Feasibility Study

Scandium for a new generation of lightweight alloys

- Sunrise is one of the **world's largest and highest grade scandium resources**
- Scandium is used to provide next generation **lightweight aluminium alloys** for key transportation markets
- Clean TeQ continues to **promote the use and development** of new scandium alloys with industry participants including Airbus and Chinalco
- Current development plan is to **extract scandium oxide as a by-product** of cobalt and nickel sulphate production
- Marginal **cost of production expected to be very low** (approx. US\$150/kg²)

Airbus Group's Light-rider



The world's first 3D printed electric bike aluminium-scandium frame makes it lighter and stronger

The bike weighs 35kg, contains a 6kWh battery, has a top speed of 80km/h and a range of 60km

* Refer to endnotes.

Critical raw materials

For the battery revolution

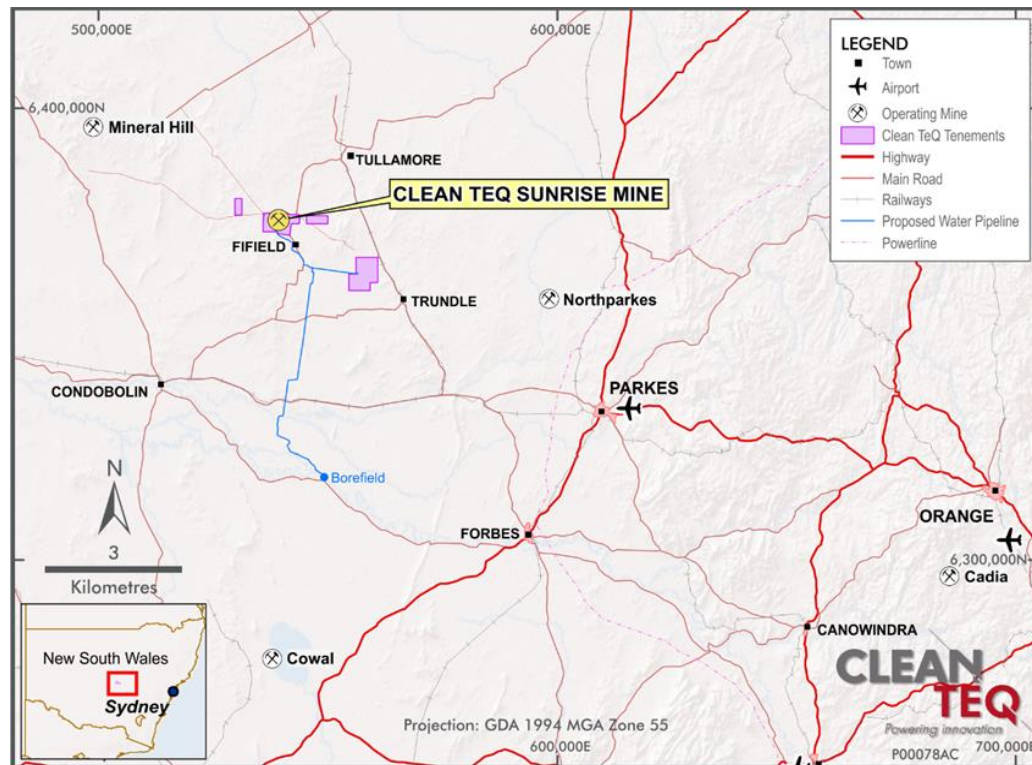


CLEAN
TEQ

SUNRISE

Advanced development project in Central NSW

- **100% owned** by Clean TeQ
- Laterite (iron-hosted) mineral resource, rich in **nickel, cobalt and scandium**
- One of the largest and highest grade sources of **cobalt outside Africa**
- Located 350 km west of Sydney in an **established mining region**
- **Significant infrastructure in place** including sealed road to site
- **Fully permitted** and development ready



Primary drivers to success

Mineralogy

- **Near surface deposit** with maximum depth of 40 metres
- **High cobalt grades** relative to other laterite deposits³
- **Very low in acid consuming elements** (magnesium and calcium⁴)

Flowsheet

- Clean iX® - continuous ion exchange technology provides **lowest cost path to battery-ready products**
- Production of final **cobalt and nickel sulphates** onsite

Location

- **Fully auditable, non-DRC supply**
- Access to **rail, road, power and water** infrastructure
- Supportive local community in **established mining area**

* Refer to endnotes.

Fully permitted and development ready

✓ STUDIES	Definitive Feasibility Study completed in June 2018
✓ PERMITS	Approved 2.5 Mtpa project from NSW Government
✓ WATER	Secured 3.2 GLpa water allocation
✓ INFRASTRUCTURE	Road and rail access in place
✓ POWER	Power and gas in close proximity
✓ PILOT PLANT	Successful pilot plant operation demonstrated process flowsheet
✓ MAIDEN OFFTAKE	Secured initial offtake agreement with Beijing Easpring
✓ MINING LEASES	Mining Leases granted
✓ CAPABILITY	Strong technical team with track record of delivery
✓ PREPARING FOR CONSTRUCTION	Engineering underway with MCC – our project delivery partner

2018 Definitive Feasibility Study

Outstanding economic and technical outcomes

STRONG ANNUAL PRODUCTION⁵

Nickel: **19,620** tonnes per annum
Cobalt: **4,420** tonnes per annum
Average over first 10 years



EXCELLENT PROJECT ECONOMICS

NPV⁶ of **US\$1.39 billion**
IRR of **19.1%**



40+ YEAR MINE LIFE

supported by mineral
Reserve



PRODUCTION OF HIGH PURITY BATTERY GRADE MATERIALS

- Nickel Sulphate
- Cobalt Sulphate

PLUS Scandium Oxide for
automotive & aerospace applications



EXCEPTIONAL CASH FLOWS

Life of Mine Revenue: **+US\$14 billion**
LOM EBITDA: **~US\$8.60 billion**
Average EBITDA: **US\$344 million** per annum



CAPITAL COST ESTIMATE

US\$1.49 billion
including
\$165 million
contingency



FIRST QUARTILE OPERATING COSTS

Negative **US\$1.46/lb**
Ni after by-product
credits⁷



SECURE SOURCE OF COBALT SUPPLY OUTSIDE OF AFRICA



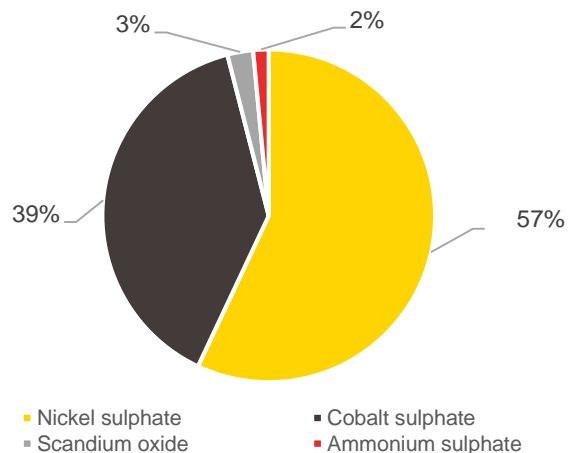
* Refer to endnotes.

Strong free cash flow generation

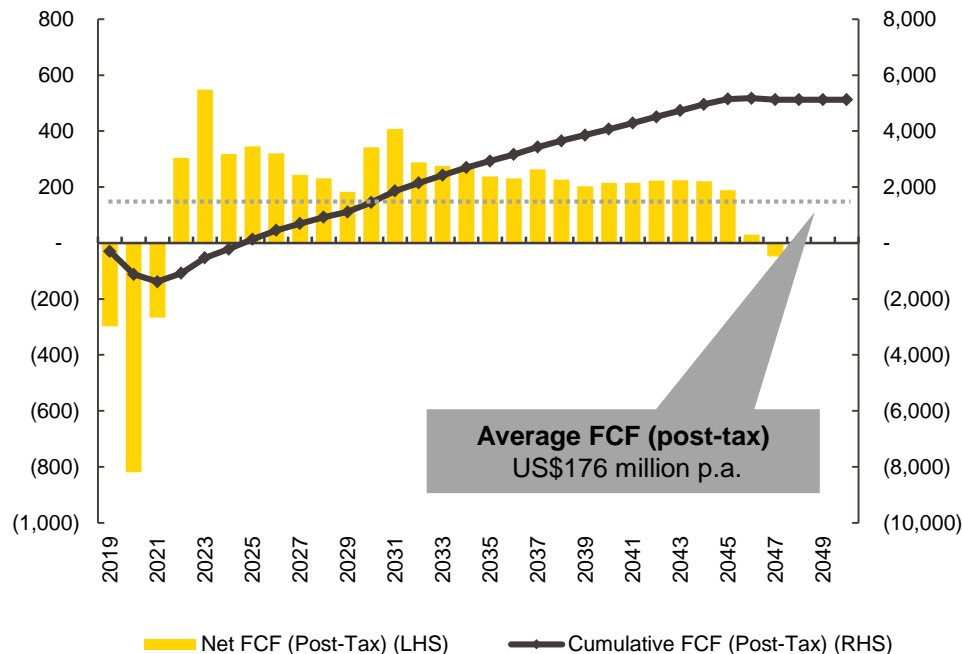
- Clean TeQ Sunrise is forecast to deliver:

- **US\$14 billion in revenue⁸**
- **LOM EBITDA of US\$8.6 billion**
- Average annual **EBITDA of US\$344 million**

Revenue Breakdown



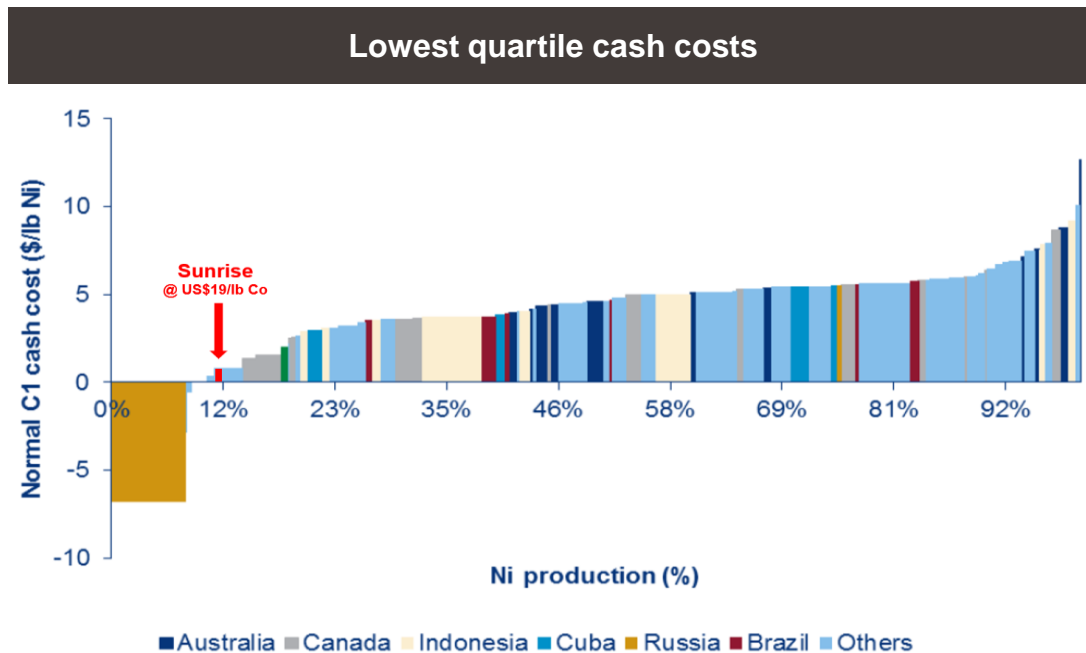
DFS free cash flow profile (US\$M)



* Refer to endnotes. DFS assumes commodity prices of US\$8/lb Ni (including sulphate premia), US\$30/lb Co, US\$1,500/kg Sc and US\$90/t ammonium sulphate.

Competitive operating cost position

	US\$/lb Ni before credits	US\$/lb Ni after credits
Mining	\$1.14	\$1.14
Processing	\$3.33	\$3.33
Haulage & port	\$0.07	\$0.07
General & administration	\$0.14	\$0.14
Cobalt credits		(\$5.60)
Scandium credits (assumes sales capped at 10 tpa)		(\$0.36)
Ammonium sulphate credits		(\$0.18)
Total C1⁹ cash operating cost	\$4.68	(\$1.46)



* Refer to endnotes.

Source: Wood Mackenzie. Assumed cobalt price for 2025 for the purposes of this chart is US\$19/lb in real 2017 US\$.

Significant community and social benefits

- Strong community benefits over life of mine including:
 - Long-term **employment**
 - Significant **infrastructure upgrades**
 - Increased **tax revenue**
 - Government **royalties payable**



STEADY STATE OPERATIONS WORKFORCE

300 people
(excluding mining
contractors and
ancillary services)



CORPORATE TAX

~A\$2.2 Billion
over life of mine



EMPLOYEE SALARIES AND WAGES

~A\$1.9 Billion
(including staff
and contractors)



STATE ROYALTIES AND PAYROLL TAX

~A\$630 million
over life of mine



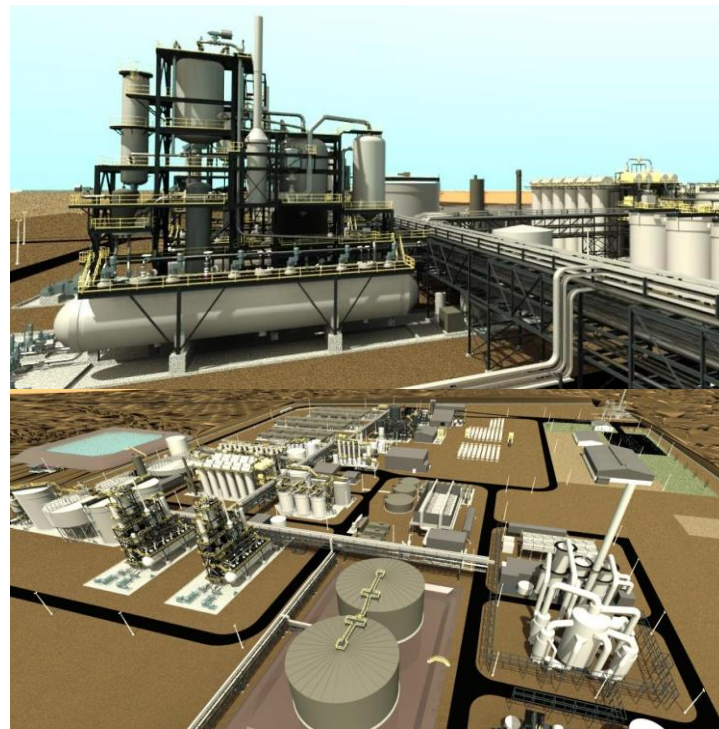
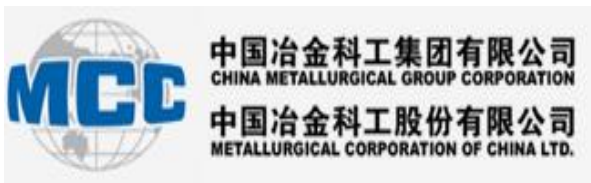
Next steps

Engineering, financing, offtake & delivery

Project engineering & design underway

MCC selected as a key project delivery partner

- **Fixed-price EPC** contract with MCC
 - Covering engineering, procurement and on-site construction for process plant scope
- **MCC built, own and operate Ramu nickel-cobalt mine in Indonesia**
- Front-end-engineering and Design (FEED) contract signed with MCC
- Integration of engineering teams and handover of project data complete
 - FEED now underway
- Early works are progressing with engineering of the water pipeline



Comprehensive project financing package

Project debt, strategic partnership & offtake

- **Mandated Lead Arranger (MLA) group** for project debt facility
 - Industrial Commercial Bank of China (ICBC), National Australia Bank, Societe General and Natixis
- **US\$500 million indicative debt commitments** received prior to syndication
- Extensive **due-diligence is ongoing** by a range of parties considering **product offtake and project level investment**
- Product samples provided to various participants including:
 - OEMs
 - Cathode manufacturers
 - Battery manufacturers
 - Integrated trading houses
- **Initial offtake agreement** signed with Beijing Easpring
 - Easpring is a leading producer of cathode materials in China



ICBC



SOCIETE
GENERALE



NATIXIS



当升科技
EASPRING

- **Binding 5-year offtake agreement** for 20% of Ni and Co sulphate
- **Transparent pricing mechanism** LME/LMB Price + sulphate premia (negotiated quarterly)
- Offtake will convert to **LOM supply with project level investment**

Our key project partners

Well-aligned for successful project delivery



Debt financing

ICBC appointed to the Mandated Lead Arranger (MLA) group for project debt financing in November 2017



Project delivery

Heads of Agreement signed with MCC in August 2018 for an EPC contract to engineer and construct Clean TeQ Sunrise. FEED contract signed.



Offtake

Binding five-year offtake agreement for 20% of cobalt and nickel sulphate production signed with Beijing Easpring



Product end-use

Landmark agreement with Chinalco and Chongqing University for the development and adoption of scandium alloys in the global transport industry

Appendix

Corporate overview

Capital Structure	
ASX/TSX code	CLQ
Ordinary shares ¹	746.3M
Unlisted options ¹	12.8M
Performance rights ¹	8.3M
Cash at bank (31 December 2018)	\$117.4M
Market capitalisation ² (undiluted)	\$261.2M

1. As at 31 December 2018

2. Based on CLQ share price of \$A0.35

3. Approximate balances at 29 January 2019

4. Excludes options and performance rights

Major Shareholders ³	
Robert Friedland	12.9%
Pengxin International	12.4%
FMR LLC	6.9%
AustralianSuper	6.3%
Board/Management ⁴	~7%

Competent and qualified persons consents

The information in this presentation that relates to Mineral Resources is based on information compiled by Mr Lynn Widenbar, a member of the Australasian Institute of Mining and Metallurgy. Mr Widenbar is a full-time employee of Widenbar and Associates. Mr Widenbar is a consultant to Clean TeQ and has sufficient experience which is relevant to the style of mineralisation and type of deposit and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Widenbar consents to the inclusion in this presentation of the matters based on their information in the form and context in which it appears.

The sections in this presentation that relate to the Clean TeQ Sunrise Ore Reserves are based on information compiled by; Mr Luke Cox, Mr Tim Harrison and Mr Lee White. Mr Cox is a full-time employee of Clean TeQ. Mr Harrison is a full-time employee of Clean TeQ and holds shares and options in the company. Mr White is employed by Kalem Group Pty Ltd and is engaged as an internal consultant to Clean TeQ.

Mr Cox, Mr Harrison and Mr White are all Members of the Australasian Institute of Mining and Metallurgy and each have sufficient experience relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the JORC Code 2012.

The qualified persons who are responsible for the disclosures regarding the DFS in this presentation are Mr Lynn Widenbar, a member of the Australasian Institute of Mining and a member of the Australian Institute of Geoscientists (AIG) (for the Mineral Resource) and Mr Tim Harrison MAusIMM (CP Met) for the disclosures other than the Mineral Resource. Mr Harrison and Mr Widenbar are both Qualified Persons under the terms of NI 43-101. Mr Widenbar is a full-time employee of Widenbar and Associates and is independent of Clean TeQ. Mr Harrison is Clean TeQ’s Principal Metallurgist and is not independent of Clean TeQ. Mr Harrison and Mr Widenbar (for the Mineral Resource only) supervised the preparation of the DFS and have reviewed and approved the scientific and technical information in this news release, including information relating to the DFS. Mr Harrison has also verified the technical data disclosed in this presentation.

For further details on the content of this presentation, please refer to the ASX releases on the Company’s website.

CleanTeq has prepared a current, independent, NI 43-101-compliant technical report for the Sunrise Project titled “Sunrise Nickel Cobalt Project, New South Wales, Australia NI 43-101 Technical Report” dated effective 25 June 2018 and which is filed at www.sedar.com and available on the company’s website at www.cleanteq.com. The technical report was prepared by SRK Consulting (Australia) Pty Ltd. The technical report includes relevant information regarding the effective dates and the assumptions, parameters and methods of the mineral resource and reserve estimates on Sunrise Project, as well as information regarding data verification, exploration procedures and other matters relevant to the scientific and technical disclosure contained in this presentation in respect of the Sunrise Project.”

1. Class 1 Nickel refers to products with a nickel content of 99% or more, including electrolytic nickel, pellets briquettes, granules, rondelles, and powder/flakes.
2. Estimated marginal cost of production per kilogram refined scandium oxide based on 10 tonne per annum production.
3. Based on publicly disclosed information.
4. Extensive metallurgical test work has demonstrated very low acid consumption (250-280 kg/tonne HPAL feed) relative to publicly disclosed consumption rates of other nickel laterite projects, which range from 340-500 kg/tonne.
5. Full information regarding the Definitive Feasibility Study is contained in the technical report titled "*Sunrise Nickel Cobalt Project, New South Wales, Australia NI 43-101 Technical Report*" dated 25 June 2018 and filed at www.sedar.com and available on the company's website at www.cleanteq.com
6. Net Present Value (NPV) is calculated at 8% discount rate, real, 100% equity basis.
7. By-product credits include cobalt, scandium and ammonium sulphate.
8. Projected revenue and EBITDA assumes commodity prices: nickel - US\$8/lb (including sulphate premia), cobalt - US\$30/lb, scandium - US\$1,500/kg, ammonium sulphate - US\$90/t.
9. C1 Cash cost of nickel produced (per lb) is the sum of production costs, net of capital expenditure development costs and by-product credits, divided by the nickel pounds produced. C1 cash costs reported by the Company include mining, processing, haulage and port expenses. By-product credits are calculated based on expected sales (net of mining and processing costs) of cobalt, scandium oxide and ammonium sulphate divided by the total pounds of nickel, using the assumed sales prices of US\$30/lb for cobalt, US\$1,500/kg for scandium and US\$90/tonne for ammonium sulphate. C1 cash cost of nickel produced per pound is a non-IFRS measure used by the Company to manage and evaluate operating performance of the Company's operating mining unit, and is widely reported in the mining industry as benchmarks for performance, but does not have a standardized meaning and is disclosed in addition to IFRS measures.

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