

19 June 2020

## Clean TeQ Sunrise Project Update

**MELBOURNE, AUSTRALIA** – Mr Sam Riggall, Managing Director and Chief Executive Officer of Clean TeQ Holdings Limited (**Clean TeQ** or **Company**) (CLQ:ASX; CLQ:TSX; CTEQF:OTCQX), is pleased to provide an update in relation to recent activities at the Clean TeQ Sunrise Project (**Clean TeQ Sunrise** or **Project**).

### Project Execution Plan

The Company has been progressing the Project Execution Plan (**PEP**) in conjunction with Fluor Australia Pty Ltd, part of the Fluor global engineering group headquartered in Irving, Texas.

As previously advised, the PEP deliverables are an update to the 2018 Definitive Feasibility Study (**DFS**) production forecast, resources, reserves and operating and capital cost estimates for the Project. These will incorporate the latest design and engineering work, as well as a revised master schedule for the Project.

On completion of the PEP, and subject to funding, Sunrise is one of the few development-ready nickel-cobalt battery material projects in the world.

While the PEP works are substantially complete, there have been delays in finalising some workstreams. The Company estimates that completion of these workstreams, as well as the requisite review and sign-off processes, will result in the announcement of the PEP results being delayed to late in Q3 2020.

### Financing Update

The partnering process the Company has been running, with the support of Macquarie Capital, remains on-going. Although good interest has been expressed by a number of parties through that process, and engagement across the EV supply chain continues, to date the Company has not been able to secure an investment partner for the Project.

As such, the Company is not able to commit to a final investment decision (**FID**) in mid-2020, as was targeted.

Not unexpectedly, the COVID-19 pandemic has presented difficult conditions for financial markets and challenges for funding new project development. However, the Company remains optimistic on the outlook for demand growth in the electric vehicle (**EV**) and lithium-ion battery sectors, and in particular the strategic importance of Sunrise as one of the largest suppliers of battery-grade nickel and cobalt into the global EV supply chain.

While demand fundamentals continue to strengthen, the supply outlook for nickel and cobalt battery materials is poor.

As Sam Riggall, Clean TeQ's CEO, noted: "Even between the most conservative and optimistic EV growth projections, the mining sector needs to build between two and four Sunrise projects every year for the next decade simply to meet EV battery demand for nickel and cobalt. Global automotive supply chains are dangerously underestimating development timeframes and capital requirements, which is why some carmakers are now contracting directly with mining companies to secure a supply of strategic metals. At some point in this game of musical chairs, the music will stop and not everyone will have a seat."

Of perhaps more consequence to the long-term sustainability of EV supply chains, however, are a range of projects under development or consideration that pose material reputational risks due to their environmental impacts. These include the dumping of mine and process waste directly into the ocean and high carbon intensity in metal processing.

"We have a vision for Sunrise, embedded within the design and engineering of the PEP, that optimises its value as an integrated part of any carmaker's EV supply chain," stated Mr Riggall. "This includes a direct-to-sulphate production process to by-pass offshore refining, options for connecting the plant to renewable energy, a battery recycling circuit and refining of scandium to improve materials performance for aerospace and automotive applications."

Given the strong outlook for nickel and cobalt demand, the Company remains committed to developing the Project once funding has been secured. As such, the partnering process will continue, however the targeted timing for completion of any transaction is not possible to forecast, particularly in light of the significant uncertainty currently impacting the global economy as a result of the COVID-19 pandemic.

### **Environmental Benchmarking**

In parallel with the PEP the Company has commissioned Energetics, one of Australia's leading energy and sustainability advisers, to undertake an environmental Life Cycle Assessment (LCA) of Sunrise to quantify its greenhouse gas impacts, and to benchmark the Project against other hydrometallurgical processes used for nickel and cobalt recovery.

The results of the LCA<sup>1</sup> demonstrate a carbon intensity (CO<sub>2</sub>e/kg contained nickel) of competing hydromet processes that are between 10% and 42% higher than Sunrise. In the case of lower grade nickel feedstocks – such as ferronickel and nickel pig iron – the carbon intensity could be at least 50% to 475% higher.

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<sup>1</sup> The greenhouse gas emission intensities of alternative processing routes are based on literature data that cannot be effectively harmonized. For comparison purposes the only harmonization that has occurred has been on end product (NiSO<sub>4</sub>) and using economic allocation to end products. Any comparison against Sunrise should be considered indicative only.

In May 2020, the Nickel Institute released a report titled *Life Cycle Assessment of Nickel Products*, which estimates a carbon intensity for battery-grade nickel sulphate not dissimilar to the Energetics' findings.

With improved cathode chemistries requiring larger amounts of nickel, the true carbon cost of producing an EV will increasingly depend on the selection of raw materials, a fact that many carmakers are now recognising. And with optionality to secure renewable power for Sunrise (which is located in one of the largest renewable energy corridors in Australia) it is possible to further reduce the Project's carbon intensity by approximately one-third.

### **Organisational Resourcing and Cost Management**

The Company remains well capitalised, with approximately \$42.2 million of cash as at 31 May 2020.

In order to sustain the group's cash reserves for as long as possible while we continue to seek funding for the Project, a range of measures are being implemented which reflect the fact that the level of Sunrise Project activity will significantly reduce over the next few months once the PEP is delivered. These include:

- A substantial proportion of the Sunrise PEP study, engineering and support teams will be demobilised during Q3 as workstreams relating to the PEP are completed.
- The Clean TeQ board of directors has reduced total non-executive director fees by approximately 40%.
- Key Management Personnel (MD/CEO, CFO and Sunrise Project Director) have agreed to a 20% reduction in their total fixed remuneration.
- A higher proportion of senior executive remuneration will be 'at-risk', to minimise cash awards under the Company's short-term incentive plan. Although subject to periodic review by the board, it is intended that these remuneration adjustments will remain in place until funding has been secured for the Project.
- A pay-freeze has been implemented for FY21.

In addition to the activities underway at Sunrise, the Company continues to make strong progress with the growth and development of our Water Business. Clean TeQ's Technology & Innovation Group also continues to advance its work in the development of graphene oxide nanofiltration membranes and adsorbents, as well as ongoing development of the CIF® technology for water treatment applications.

### **For more information, please contact:**

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This announcement is authorised for release to the market by the Board of Directors of Clean TeQ Holdings Limited

**About Clean TeQ Holdings Limited (ASX/TSX: CLQ)** – Based in Melbourne, Australia, Clean TeQ is a global leader in metals recovery and industrial water treatment through the application of its proprietary Clean-iX<sup>®</sup> continuous ion exchange technology. For more information about Clean TeQ please visit the Company's website [www.cleanteq.com](http://www.cleanteq.com).

**About the Clean TeQ Sunrise Project** – Clean TeQ is the 100% owner of the Clean TeQ Sunrise Project, located in New South Wales. Clean TeQ Sunrise is one of the largest cobalt deposits outside of Africa, and one of the largest and highest-grade accumulations of scandium ever discovered.

**About Clean TeQ Water** – Through its wholly owned subsidiary Clean TeQ Water, Clean TeQ is also providing innovative wastewater treatment solutions for removing hardness, desalination, nutrient removal and zero liquid discharge. The sectors of focus include municipal wastewater, surface water, industrial waste water and mining waste water. For more information about Clean TeQ Water please visit [www.cleanteqwater.com](http://www.cleanteqwater.com).

## FORWARD-LOOKING STATEMENTS

Certain statements in this news release 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 the Company 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 new release.

Statements in this news release that constitute forward-looking statements or information include, but are not limited to, statements regarding: the growth and development of our Water Business and Technology & Innovation Group; the timing of the completion of the Sunrise Project Execution Plan; the outlook for electric vehicle markets and demand for nickel and cobalt; and the carbon intensity of Sunrise metal production. 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; 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](http://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 news release 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 news release 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 news release.