

31 January 2023

## Quarterly Activities Report and Appendix 4C to 31 December 2022

### Clean TeQ Water Limited

ACN: 647 935 948

ASX:CNQ

OTCQX:CNQQF

### Corporate Information<sup>#</sup>

Ordinary shares: 57.7M

Performance rights: 5.2M

Cash at bank: \$6.6M

### Executive Chairman

Peter Voigt

### CEO

Willem Vriesendorp

### Non-Executive Directors

Ian Knight

Sam Riggall

Robyn McLeod

### Company Secretary

Anita Addorisio

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<sup>#</sup> As at 31 December 2022

## HIGHLIGHTS

### Key financial highlights for Q2 FY23 include:

- Quarterly cash receipts of \$4.3M, more than double the previous quarter, driven by new projects secured and successful practical completion of current projects.
- Net cash used in operating activities was \$1.3M, down by 63% from the previous quarter.
- Following successful \$5M capital raise, the Company has \$6.6M in cash and term deposits as of 31 December 2022.

### Key Operational highlights include:

- Practical completion of the water treatment plant to remove uranium from bore water in Laramba, Northern Territory.
- Practical and full completion of the Koumala Drinking Water Treatment Plant for the Mackay Regional Council.
- A \$10M contract was signed for the design, manufacture, and delivery of a recycled water treatment plant for the Townsville Water Treatment Facility Project.
- Further inroads into Europe through signing of a cooperation agreement with leading Irish environmental company Enva starting with a PHOSPHIX™ phosphate removal pilot with a leading multinational dairy company.
- Commencement of Graphene Membrane field pilot for application in the food processing sector at Schreurs & Sons.

## Message from the CEO

We ended the last quarter strongly with two project handovers in the Northern Territory and Queensland plus the signing of the Townsville contract. These three projects further establish our position as one of Australia's leading water technology providers, playing an increasingly visible role in improving Australia's water security.

We are also delighted with our strategic agreement with leading Ireland based environmental company ENVA, with whom we are looking to enter the Ireland and UK market. We are looking at similar partnerships in other European countries.

Meanwhile, NematiQ is continuing its steady progress towards commercialisation through the start of its first large scale commercial pilot with Schreurs and Sons. The plant has been operating smoothly and both parties are eagerly awaiting analytical results in mid-February.

In our metal recovery business, we are investigating the formation of a partnership to apply our proprietary continuous Direct Lithium Extraction (cDLE™) technology to economically recover lithium from brines. We believe our expertise and experience in ion exchange systems, built over many decades, has the potential to provide substantial economic and environmental benefits compared to alternative DLE technologies.

The \$5 million capital raise we announced on the 27<sup>th</sup> of October will strengthen the balance sheet and expand commercial capabilities. Funds raised will fund the Company's pipeline of existing projects, commercialisation of NematiQ and emerging opportunities in metals recovery.

## Q2 FY23 CASH FLOW

Net cash used in operating activities was \$1.3M, down from \$2.5m in the previous quarter. Cash received from projects in Q2 FY2023 was \$4.3M, more than double from \$2M in Q1 FY2023. Payments for product manufacturing and operating costs in Q2 FY2023 were \$3.2M, compared to \$1.8m in the previous quarter.

As of 31 December 2022, the Company had cash reserves of \$6.6M. The Company has no debt or convertible instruments. A summary of the revenue and expenditure incurred during the quarter is detailed in the attached unaudited Appendix 4C.

## Q2 FY23 TRADING AND OPERATIONAL HIGHLIGHTS AND OUTLOOK

### Trading Highlights

The Power and Water Corporation (PWC) project for the removal of uranium from bore water for an Indigenous community in the Northern Territory achieved practical completion on the 16<sup>th</sup> of December in line with the delivery milestone schedule, seven months after signing of the contract.

The upgrade of the bore water treatment plant in Koumala, Queensland, also achieved practical completion and handover in the quarter. The treatment plant reduces the potential scaling of pipes and improves the taste of the potable water supply for local residents.

These projects are two of several projects that Clean TeQ Water is involved in relating to using our advanced technologies to improve water security and water quality. Demand for such technologies continues to grow, driven by the impacts of climate change and the aim for companies and governments to reduce their footprint.

### Projects Update

#### Ion Exchange Uranium Removal Project (NT, Australia)

On the 16<sup>th</sup> of December 2022, the project achieved practical completion for the design, manufacture, and delivery of a water treatment plant to remove uranium from bore water in Laramba, a remote Indigenous community, approximately 200km north-west of Alice Springs in the Northern Territory.

The \$5 million contract, signed in May 2022 with Power Water Corporation, for the delivery of this project is the first plant to be delivered as part of the Northern Territory Government's \$28 million program to improve water quality and supply infrastructure to prioritised areas of critical need.

In this application, Clean TeQ Water used ion exchange technology to remove the naturally occurring uranium from the bore water. The ion exchange system was designed to produce minimum volumes of by-product waste. Clean TeQ Water will continue to support Power and Water Corporation through remote monitoring to ensure reliable operations and minimum disruption to the water supply.

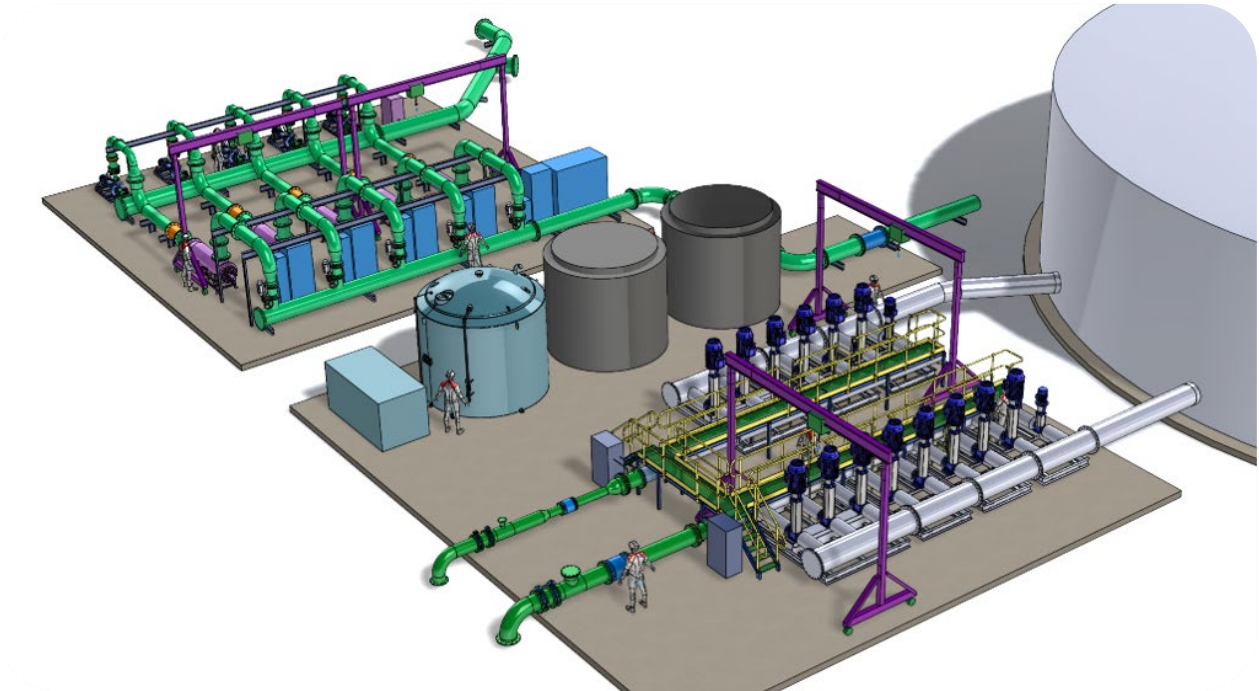
The delivery has been achieved safely, on-time and on-budget by Clean TeQ Water's experienced multi-disciplinary team. The 8-week validation period is currently underway.



*Photo of the two skid mounted batch ion exchange systems at Laramba*

#### Townsville City Council Project (Cleveland Bay Purification Plant)

In November 2022, the Company signed a contract with a local civil engineering partner, A. Gabrielli Construction ('AGC'), for delivery of a 15 megalitres a day ('MLD') Recycled Water Treatment Facility ('WTF') at Cleveland Bay Purification Plant, as a part of a contract for water treatment and distribution for Townsville City Council ('TCC').



*Preliminary render of equipment for the Townsville Water Recycling Plant*

The Company received an initial order in July 2022 for the design and sourcing while detailed contract negotiations were taking place.

Under the contract, the head contractor, AGC, is responsible for the integrated design and construction of the Recycled WTF at Cleveland Bay Purification Plant including all civil and infrastructure works. Clean TeQ Water will be responsible for the design and construction of the specified water treatment process and equipment to produce the Class A water for industrial process reuse and irrigation.

The project helps reduce the demand for potable water for industry and irrigation as part of TCC's integrated water strategy. The value of this work to CNQ is around A\$10 million and includes a provision to increase capacity of the plant to 20 MLD and to upgrade the treatment technology to reach a higher quality of water for reuse.

#### Koumala Ion Exchange Drinking Water Project (Queensland)

The Company secured the Koumala Drinking Water Project in January 2021 through a competitive tender by offering an alternative ion exchange solution for the treatment of ground water.

Construction of the plant was completed in August 2022, with commissioning completed in October 2022. The plant passed the performance tests specified in the engineering, procurement and construction contract and the customer has issued a formal notice of acceptance and completion.

Following successful testing of the plant, the old Koumala Water Tower was disconnected, and residents now access their improved water supply from the new Koumala Water Treatment plant.

Clean TeQ Water's in-depth knowledge of ion exchange allowed a process to be selected which simultaneously reduces hardness, while also reducing the total dissolved solids of the water. This allows the plant to meet the aesthetic limits for both sodium and hardness in the Australian Drinking Water Guidelines, producing a higher quality and better tasting water for residents.



*Photo of the Koumala water treatment plant site*

### NESR HIROX® Bore Water Treatment Project (Iraq, Middle East)

This project applies the Company's HIROX® technology to treat non-potable bore water to the quality required for well completions. The end-user of the plant is BP and the solution provided is expected to dramatically reduce not only the volume of water withdrawn, but also the energy and chemicals used per ton of treated water produced.

While substantial progress has been made in the last quarter, logistical challenges and skilled labour shortages related to the location of the site have continued to delay completion of the construction, which is now expected for January. The commissioning is expected to be completed a few months after construction completion. Despite the challenges, the Company remains optimistic about the prospects of strong future growth in demand from the oil and gas market as customers are facing enormous pressure to reduce their carbon and water footprint.



*Installation progress of the NESR HIROX® plant*

#### EVAPX® Agricultural Brine Treatment Project (NSW)

On 23 September 2021, the Company was awarded a contract to design, procure and deliver an EVAPX® system to treat brine from an agriculture by-product processing facility in New South Wales. The EVAPX® technology is an efficient, low energy method to treat highly concentrated wastewaters and brines to achieve minimal liquid discharge ('MLD') or zero liquid discharge ('ZLD'). In this application, the EVAPX® plant will recover clean water and produce a concentrated salt brine for re-use in the primary hide curing process.

This past quarter, the plant achieved cold commissioning and continuous operation on one of the intended feed streams. Further calibration of the plant and treatment of some of the other higher concentrated feed flows is planned for the next quarter.



*EVAPX® system at the customer's site in New South Wales*

#### Ordos BIONEX™ Nitrate Removal Project (Inner Mongolia, China)

The BIONEX™ nitrate removal plant combines the Company's unique continuous ionic filtration (CIF®) technology with its BIOCLENS® technology to treat 12,000 tons per day of mining wastewater. The CIF® portion of the plant has operated continuously for most of the time since May 2022, removing nitrate to levels to below the specified 1ppm level.

The installation of the biological (BIOCLENS®) section of the plant has been stalled due to COVID related lockdowns in China. The BIOCLENS® portion of the plant is not required for the customer to meet the discharge requirement but once installed it will further reduce the cost of operation and result in full zero liquid discharge.

As China moved away from strict lockdowns and its dynamic zero Covid policy at the end of December, we expect the installation and commissioning of this final portion of the plant to commence soon after the end of Chinese New Year.

This BIONEX™ plant is the first of its kind in China and will act as a demonstration site for other prospective customers. The market for BIONEX™ nitrate removal technology is large and includes treating effluents from mining, industrial processes and municipal water treatment facilities located in ecologically sensitive areas.



## Partnership with Leading European Environmental Services Company, Enva

The Company has signed of a cooperation agreement with Enva to promote the Company's water treatment solutions in Ireland and the United Kingdom.

Enva is a leading UK and Ireland based waste services and resource recovery company employing around 1,600 people across 33 facilities. Enva is well positioned to represent and develop business for the Clean TeQ Water technologies in the dairy, pharmaceutical, municipal, and industrial sectors in Ireland and the UK.

Under the agreement, the parties will cooperate in technology commercialisation and project implementation in Ireland and the UK. The Parties are currently pursuing four projects with multinational companies interested in using the Company's HIROX<sup>®</sup>, DESALX<sup>®</sup> and PHOSPHIX<sup>™</sup> technologies. One of those four projects is with an existing Enva Client, a global multi-national agri-processing business with three state-of-the-art dairy manufacturing facilities in Ireland. Enva and Clean TeQ Water have signed a letter of intent to demonstrate the use of PHOSPHIX<sup>™</sup> to recover phosphate from the industrial effluent produced at this Irish dairy manufacturing facility. Clean TeQ Water's PHOSPHIX<sup>™</sup> technology enables the removal of phosphate down to levels below 0.1 mg/L, whilst producing a reusable fertilizer product and enabling brine re-use.

Europe is envisioned to become one of the Company's major future revenue drivers given the size of the market and Europe's strict effluent regulation and global leadership in requirement for nutrient recycling. The cooperation with Enva is a great step towards building a footprint in Europe following the opening of the Company's European office in September 2022. The Company aims to establish similar partnerships with leading players in other European regions to accelerate growth.

## NematiQ Graphene Membranes

NematiQ has developed ground-breaking technology to produce spiral wound Graphene Membrane cartridges using its unique technology. Graphene Membranes offer customers significant benefits in operation over conventional polymeric nanofiltration products, including energy savings, improved water recovery rates, chemical-free processing and improved by-product quality.

NematiQ's first pilot plant was commissioned in Q2 2023 and sent to the first pilot trial site at Schreurs & Sons in Clyde, Victoria. The pilot plant has the capacity to deploy one 8040 module<sup>1</sup> and two 4040 modules<sup>2</sup> and is portable, allowing it to be installed at a client site for continuous testing in their specific environmental conditions with their specific target needs. These are the largest commercially available spiral wound membrane modules, and the pilot is designed to determine design factors and energy consumption calculations for full scale water treatment facilities at customer sites.

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<sup>1</sup> 8040 modules are 8 inches diameter and 40 inches long (20.3cm diameter x 101.6cm long)

<sup>2</sup> 4040 modules are 4 inches diameter and 40 inches long (10.2cm diameter x 101.6cm long)



*Portable pilot plant for initial field trials of industrial sized 4040 and 8040 NematiQ graphene membranes*

Extremely wet weather in October through to early December delayed the deployment at Schreurs & Sons, with the plant arriving on site mid-December to complete deployment and a run-in trial. The plant operated smoothly and both parties are eagerly awaiting the analytical results in mid-February. This is an important milestone for NematiQ as it will mark the transition of the technology from TRL6 up to TRL8 or 9 and promote earlier adoption of the technology.

Initial laboratory-scale trials have been completed for clients, which may lead to pilot scale trials and sales opportunities in the following areas:

1. Food and beverage separations;
2. Domestic grey water treatment;
3. Industrial site wastewater remediation;
4. Drinking water filtration;
5. Filtration of industrial brines;
6. Concentration of synthesised nanomaterials; and
7. Filtration for water analytical equipment.

## Metal Recovery

### Technology Services for Sunrise Energy Metals

Work on the use of black mass as an input material for Sunrise Energy Metals has continued. Preliminary results are seeing substantial leaching of nickel and cobalt in a relatively simple leach circuit. Work is also being undertaken in the recovery of lithium from the circuit using a DLE process.

### Lithium Extraction

The demand for electric vehicles is growing rapidly, and securing low-cost, sustainable sources of lithium supply has become a high priority for automotive and battery companies across Asia, Europe and the North America. The growing number of strategic alliances and joint ventures to vertically integrate with raw material supply chains underscores the need for new lithium resources and processing capacity over the coming decades.

While lithium from hard rock has been the cornerstone of lithium production in Australia, rapid advances are being made in the direct extraction of lithium from brines. Direct lithium extraction (DLE) uses ion exchange or adsorption technology, and Clean TeQ Water is now looking to enter the market using its proprietary continuous ion exchange approach, otherwise known as cDLE™.

The Company has signed a non-binding Letter of Intent ('LOI') with Computational Geosciences Inc. (a subsidiary of Ivanhoe Electric (NYSE US: IE; TSX: IE)) and XtraLiT Ltd. (an Israeli corporation) for the purpose of considering establishing a Joint Venture (the "Joint Venture") to acquire and finance a portfolio of brine assets to produce battery-grade lithium salts based on Continuous Direct Lithium Extraction (cDLE™) technology.

The parties have agreed a binding 180-day exclusivity period during which they will determine if the Joint Venture is the appropriate vehicle for the parties.

The Joint Venture will bring together the intellectual property and know-how to identify lithium brine assets and provide the most economic and environmentally sustainable extraction and purification process leading to battery-grade lithium salts.

Clean TeQ Water's proprietary continuous ion exchange circuit, a process which has been extensively tested in the production of battery-grade nickel and cobalt sulphate, will be employed to extract and purify lithium from brines. While ion exchange and adsorption materials already form a key component in many static bed DLE systems, continuous ion exchange has the potential to produce a more concentrated and pure eluate, lowering overall capital and operating costs and improving the ESG credentials of lithium production.

Clean TeQ Water is currently testing the extraction technology with a number of brine sources, and as process benchmarks are achieved it expects to move forward with pilot plant testing for specific clients and/or partners.

## Kamoa Kakula Tailings (DRC)

Work has commenced on the recovery of copper from the Kamoa Kakula flotation tailings. A CLEAN-IX® -based catalytic leaching process will be used to extract and recover additional copper units from the flotation tailings. ATA™ technology will be used to rapidly separate the barren solids and water to recover the water and catalyst for recycling within the process. If the tests prove successful and provide an economic solution, the work will be expanded to demonstrate the technology at larger scale.

## **Capital Raise**

On 27 October 2022, the Company announced that it was conducting a capital raise of up to \$5 million, comprised of a two-tranche placement to new and existing institutional and sophisticated investors at \$0.38 per share.

## Appendix 4C

### Quarterly cash flow report for entities subject to Listing Rule 4.7B

**Name of entity**

CLEAN TEQ WATER LIMITED

**ABN**

12 647 935 948

**Quarter ended ("current quarter")**

31 December 2022

<b>Consolidated statement of cash flows</b>	<b>Current quarter A\$'000</b>	<b>Year to date (6 months) A\$'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	4,303	6,319
1.2 Payments for		
(a) research and development	(35)	(196)
(b) product manufacturing and operating costs	(3,217)	(5,049)
(c) advertising and marketing	-	(118)
(d) leased assets	-	-
(e) staff costs	(1,624)	(3,264)
(f) administration and corporate costs	(694)	(1,361)
(g) insurance costs	-	(137)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	9	21
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,258)</b>	<b>(3,785)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	(61)	(84)
(d) investments	-	-
(e) intellectual property	-	-

Consolidated statement of cash flows	Current quarter A\$'000	Year to date (6 months) A\$'000
(f) other non-current assets	-	-
2.2 Proceeds from disposal of:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>(61)</b>	<b>(84)</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	4,957	4,957
3.2 Proceeds from issue of convertible debt securities	-	-
3.3 Proceeds from exercise of options	-	-
3.4 Transaction costs related to issues of equity securities or convertible debt securities	(246)	(246)
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (repayment of lease liabilities)	(49)	(71)
<b>3.10 Net cash from / (used in) financing activities</b>	<b>(4,662)</b>	<b>(4,640)</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>	<b>-</b>	<b>-</b>
4.1 Cash and cash equivalents at beginning of period	3,298	5,903
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(1,258)	(3,785)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(61)	(84)

Consolidated statement of cash flows		Current quarter A\$'000	Year to date (6 months) A\$'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	4,662	4,640
4.5	Effect of movement in exchange rates on cash held	(25)	(58)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>6,616</b>	<b>6,616</b>

Note: On 1 July 2021 Clean TeQ Water Limited was demerged from Sunrise Energy Metals Limited. The cash and cash equivalents at that date are noted at item 4.1

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter A\$'000	Previous quarter A\$'000
5.1	Bank balances	4,254	2,936
5.2	Call deposits	362	362
5.3	Bank overdrafts	-	-
5.4	Term Deposits	2,000	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>6,616</b>	<b>3,298</b>

**6. Payments to related parties of the entity and their associates**

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

**Current quarter  
A\$'000**

(128)

-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

## Quarterly cash flow report for entities subject to Listing Rule 4.7B

**7. Financing facilities**

Note: the term "facility" includes all forms of financing arrangements available to the entity.

Add notes as necessary for an understanding of the sources of finance available to the entity.

	Total facility amount at quarter end A\$'000	Amount drawn at quarter end A\$'000
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	362	362
7.4 <b>Total financing facilities</b>	-	-

7.5 **Unused financing facilities available at quarter end** -

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

7.3 Cash backed bank guarantees secured against amounts held within a restricted Cash Deposit Account (5.2), issued in accordance with contractual performance obligations.

<b>8. Estimated cash available for future operating activities</b>	<b>A\$'000</b>
8.1 Net cash from / (used in) operating activities (Item 1.9)	(1,258)
8.2 Cash and cash equivalents at quarter end (Item 4.6)	6,616
8.3 Unused finance facilities available at quarter end (Item 7.5)	-
8.4 Total available funding (Item 8.2 + Item 8.3)	6,616
8.5 <b>Estimated quarters of funding available (Item 8.4 divided by Item 8.1)</b>	5.26

Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.

8.6 If Item 8.5 is less than 2 quarters, please provide answers to the following questions:

8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: Not applicable as 8.5 is greater than 2.

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: n/a

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: n/a

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.



## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2023

Authorised by the Board of Directors of Clean TeQ Water Limited

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.