Hazer Group Limited (ACN 144 044 600)
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APPENDIX 4C – 31 DECEMBER 2021 QUARTERLY ACTIVITIES & CASHFLOW REPORT

Highlights:

- *Construction activities continued at the Hazer Commercial Demonstration Plant Project (CDP or Project).*
- *Manufacturing flaw identified in the reactor vessel for the CDP while undergoing testing before shipment. Remanufacture of the vessel now underway with a delay of approximately 6 months to the full operation of the CDP.*
- *Concept Study for larger first-generation commercial Hazer facilities completed with Chiyoda Corporation.*
- *Appointment of Dr Jack Hamilton as an Independent Non-Executive Director to the Board.*
- *Strong financial position with cash reserves of $27.9 million as of 31 December 2021. The balance sheet was strengthened with completion of a $7 million Share Purchase Plan in October 2021.*
- *FY21 R&D tax incentive relating to FY21 received from the Australian Taxation Office for a sum of $1,326,917; proceeds applied to the Mitchell Asset Management Senior Secured Loan Facility.*

PERTH, AUSTRALIA; 31 January 2022: Hazer Group Ltd ("Hazer" or "the Company") (ASX: HZR) lodges the following activity update and attached Appendix 4C Quarterly Cashflow Report for the three-month period ended 31 December 2021.

Key activities undertaken during the quarter are outlined below:

Commercial Demonstration Plant update

Construction activities are continuing at the Hazer CDP with structural, mechanical, and piping (SMP) and Electrical and Instrumentation (E&I) in progress. Substantial progress has been made in the installation of pipe-racks and piping, cladding and insulation scopes, installation of various mechanical equipment packages (CO2 removal systems, siloxane removal system, nitrogen and air utility compressors, process chiller package), valving and instrumentation installation, and construction of the main structure frame.

With delivery of the flare package (received January 2022), all major equipment packages, excluding the main reactor, have been received and are awaiting installation as per the construction schedule. During the quarter, the installation of transformer units and connection to the Western Power grid was also achieved.

A photograph of the site as of 28 January 2022 is attached below.

On 11 December 2021, Hazer advised that a manufacturing flaw had been identified in the reactor vessel during quality assurance tests while awaiting final heat treatment prior to shipping. As a result of the flaw, the reactor shell was deemed unsuitable for use and will need to be remanufactured.

Over the Christmas period, the Hazer team worked with our suppliers and independent experts to review the cause of the manufacturing flaw and determined improvements to the proposed manufacturing method. Following this review, we have approved the current supplier to proceed to remake the vessel. We expect the reactor will now be completed and shipped for delivery to Australia around July 2022, a delay of approximately 6 months from the original schedule.

In deciding to proceed with the current supplier, the Hazer team considered a range of options, including the ability and availability of other global suppliers to manufacture the required dimensions in the specialised alloy. The alloy used for our reactor is highly specialised with a very limited number of suppliers with experience to manufacture this material in the dimensions and method we require. After reviewing available alternatives, we have concluded we are best placed to proceed with the current supplier and build on the experience gained from the first manufacturing attempt. We will continue to assess alternative options as we proceed with the remake of the reactor.

To reduce the risk of the manufacturing issue recurring, we have elected to reduce the size of the proposed forging and will now manufacture the reactor in two sections which will be welded together in final fitting. This reduction in forging length will reduce the risk of the manufacturing flaw encountered in the first manufacture being repeated.

The CDP is a key step in demonstrating the scale-up and commercialisation of the Hazer technology. The Project program includes a rigorous testing schedule that will demonstrate the continuous operation of the process with the full integration of all required sub-systems (such as catalyst injection, gas-solids separation, heat recovery and process control) and derive the engineering data (including confirmation of fluidisation characteristics at larger scale, heat-transfer parameters and carbon emission parameters) necessary to support the scale-up of the process. The full operation of the Project will demonstrate the safe continuous production of low-emission hydrogen and graphite.

The Hazer team has reviewed the program for the completion of the construction of CDP, the commissioning plan and the proposed testing and operations program for the CDP to determine an optimised staged commissioning and testing process that reduces operational risk and maximises value of early data.

This testing program will be broken into multiple phases with the first phase to be conducted at reduced temperatures using a temporary carbon steel reactor (the "cold" reactor). This will allow commissioning of the solids handling, process control, safety, and utilities systems, and deliver initial process data to de-risk the start-up of the second phase, the hot commissioning and full operation of the CDP.

Based on the activities now in place, we expect the completion of CDP construction and installation of the initial carbon steel cold reactor to be achieved by mid-2022. This will allow the first commissioning of the Project and commencement of initial testing program. Following this phase, the initial "cold" reactor will be removed, and the hot-wall reactor installed. We anticipate that this will be achieved in 2H 2022, allowing production of hydrogen and graphite to commence before the end of 2022.

The additional manufacturing activities and the inclusion of the carbon steel reactor to allow the staged commissioning of the Project will result in additional costs of approximately $1 million. With these additional costs and continued cost pressures due to strong demand for materials and resources in Western Australia, we anticipate that the final completed cost of the Project will be at the top end of our previously indicated range of $23 - $25 million. While we continue to closely monitor and control costs in all ways we can, the program for the CDP has evolved as we have progressed through design and construction. The CDP now has additional aspects (such as the cold operation phase) that were not contemplated when we originally planned the Project. While these have contributed to additional cost, they will de-risk our operation, provide additional process data insight and contribute value to the development of our technology and achieving the overall success of the CDP.

Technology Development

In parallel to the development of the CDP, Hazer maintains a strong program of technology development. This program is focused on ensuring we can continue the scale-up of the Hazer technology beyond the CDP to reach the large commercial scale required by our customers. During the quarter, there were two significant milestones in our technology development program.

Chiyoda Corporation completed the Concept Study for a commercial scale Hazer Plant of a nominal 2,500 tpa capacity. The study indicated a capital cost of A$55 - $60 million, with additional cost improvement opportunities highlighted for further investigations. Additionally, work we have done with prospective customers looking to use hydrogen as a clean fuel, to decarbonise grid applications, and other industrial applications, has identified potential alternative process configurations for the Hazer Process that may allow us to reduce the capital costs of such

integrated plants further again. This offers a prospective way of developing early-stage commercial opportunities that would not rely on the development of specialist hydrogen applications such as transport.

The second key aspect of technology development was the commencement of the engineering program to develop a new reactor concept to succeed the current hot-wall reactor design. As we have progressed the CDP, limitations in the current hot-wall reactor have been identified that will restrict our ability to scale this design to the capacities we wish at an effective price. The difficulty in manufacturing encountered in the last quarter has also highlighted this. Building on the Reactor Development Study completed earlier in 2022, we have commenced a program to design a large-scale Hazer reactor based on lower cost materials (carbon-steel and refractory or insulation). We are currently working through initial design proposals from specialists in this area to firm up the proposed schedule. Our target is to have available a "Mark II" Reactor for installation in the CDP during 2023, with this reactor design being the basis for further scale-up in the first larger commercial-scale projects we are targeting through our business development activities.

Further details of this program will be advised as they are crystallised as part of our regular updates.

Research & Development Activities

Research & development remains a core activity for Hazer, with high potential impact programs continuing in 2022 in relation to graphite purification, characterisation, and catalyst & graphite optimisation research. During the quarter, Hazer executed an extension to our agreement with the Innovative Manufacturing Co-operative Research Centre until September 2022. This extends the current funding support for our ongoing R&D program.

Phase1of the R&D investigation of a novel clean purification technique to purify Hazer Graphite to 99%+ purity has been completed. The results are currently being analysed, and a program for further investigation being prepared. The results to date support continuing with this very prospective area of R&D.

Hazer is continuing to explore additional applications for our novel graphitic materials. We continue to be encouraged by the market potential for Hazer Graphite in a range of market segments in both purified and unpurified forms. The Hazer CDP will provide the first larger volume of graphite able to support these market development activities by delivering sufficient material to allow larger scale testing or trials with customers to build on the initial smaller scale samples testing undertaken during the pilot program.

Retirement & Appointment of Director.

Professor Andrew Harris, independent non-executive director of Hazer Group, retired as a Director at the Annual General Meeting held on 8 December 2021. Professor Harris had been a Director of Hazer Group since June 2016. On behalf of the Board of Hazer Group and all shareholders, we would like to thank Professor Harris for his service to the Company.

Dr Jack Hamilton was appointed as an independent non-executive director to the Board of Hazer. Dr Hamilton is a highly experienced senior executive and board director with extensive expertise across technology development, operations and manufacturing, project management, business development and commercial ventures.

Dr Hamilton has held senior positions across the energy sector both locally and internationally, including leading Australia's largest resource project as Director, North West Shelf Ventures for Woodside Energy Ltd. Jack is currently Chair of ASX listed technology company, AnteoTech (ASX ADO) and a non-executive director with Calix Ltd (ASX CXL), having formally been a director of infrastructure company DUET Group Ltd amongst other positions. Jack graduated from Melbourne University with a Bachelor of Chemical Engineering before undertaking a post-graduate study to attain a Doctor of Philosophy.

Cashflow commentary

As of 31 December 2021, the Company had cash reserves of $27.9 million, including $5.4 million of cash relating to Australian Renewable Energy Agency (ARENA) grant proceeds, available to the Company when certain milestone conditions are satisfied.

Hazer incurred net operating cash outflows of $0.17 million during the quarter. Operating cash payments totalled $1.51 million were offset by the receipt of $1.33 million R&D Tax incentive rebate for FY21.

Net operating payments included expenditure for research and development activities of $0.11 million, staff costs (including research and development employees) of $0.74 million, and corporate and administration fees totalled $0.54 million. Financing costs of $0.09 million related to borrowing costs incurred under the Company's loan facility held with Mitchell Asset Management.

Cash used for investing activities totalled $5.0 million, incurred on the CDP for engineering and key equipment packages. When the asset becomes ready for use, these costs are expected to be eligible for the R&D tax incentive rebate.

During the quarter, net cash inflows from financing activities were $5.8 million, comprising $7 million before share issue costs from the successful Share Purchase Plan to eligible shareholders and $0.07 million from the exercise of options, and a repayment of $1.33 million was made against the Mitchell Asset Management loan facility in line with the loan repayment terms.

As required by ASX Listing Rule 4.7C3, the Company notes that $0.13 million was paid to related parties during the quarter (as noted in section 6 of the attached Appendix 4C). These payments were salaries, fees and superannuation paid to Directors.

Authorised for release by the Board of the Company.

[ENDS]

Forward-looking Statements

This announcement may contain certain "forward-looking statements" which may not have been based solely on historical facts but are based on the Company's current expectations about future events and results.

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, assumptions, and other factors, which could cause actual results to differ materially to futures results expressed, projected, or implied by such forward looking statements.

The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statements" to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under the applicable securities laws.

ABOUT HAZER GROUP LTD

Hazer Group Limited ("Hazer" or "The Company") is an ASX-listed technology development company undertaking the commercialisation of the Hazer Process, a low-emission hydrogen and graphite production process. The Hazer Process enables the effective conversion of natural gas and similar methane feedstocks, into hydrogen and high-quality graphite, using iron ore as a process catalyst.

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Appendix 4C

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

Name of entity	
HAZER GROUP LIMITED	
ABN	**Quarter ended ("current quarter")**
40 144 044 600	31 DECEMBER 2021

Consolidated statement of cash flows		**Current quarter $ A'000**	**Year to date (6 months) $ A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	15	15
1.2	Payments for		
	(a) research and development[1]	(111)	(323)
	(b) product manufacturing and operating costs		
	(c) advertising and marketing		
	(d) leased assets		
	(e) staff costs, including research and development staff	(736)	(1,424)
	(f) administration and corporate costs	(540)	(872)
1.3	Dividends received (see note 3)		
1.4	Interest received	2	2
1.5	Interest and other costs of finance paid	(88)	(219)
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
	- R&D tax rebate	1,327	1,327
	- WA Government grant (Hydrogen Fund)	0	50
1.8	Other (provide details if material)		
	- Net GST received / (paid)	(38)	(162)
1.9	**Net cash from / (used in) operating activities**	**(169)**	**(1,606)**

[1] Research and development expenditure in 1.2 (a) is expected to be eligible for the R&D tax incentive rebate.

Consolidated statement of cash flows		Current quarter $ A'000	Year to date (6 months) $ A'000
2.	**Cash flows from investing activities**		
2.1	Payments to acquire:		
	(a) entities		
	(b) businesses		
	(c) property, plant and equipment[2]	(5,000)	(9,574)
	(d) investments		
	(e) intellectual-property		
	(f) other non-current assets	(12)	(12)
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)		
2.6	**Net cash from / (used in) investing activities**	**(5,012)**	**(9,586)**

[2] Expenditure in 2.1(c) relates to the Commercial Demonstration Plant (Project) construction. Costs are expected to be eligible for the R&D tax incentive rebate when the asset becomes ready for use.

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of shares (excluding convertible debt securities)	7,000	14,000
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options	72	72
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(24)	(487)
3.5	Proceeds from borrowings	88	2,222
3.6	Repayment of borrowings	(1,327)	(1,327)
3.7	Transaction costs related to loans and borrowings	0	(3)
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	**Net cash from / (used in) financing activities**	**5,809**	**14,477**

Consolidated statement of cash flows		Current quarter $ A'000	Year to date (6 months) $ A'000
4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at the beginning of the period	27,297	24,640
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(169)	(1,606)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(5,012)	(9,586)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	5,809	14,477
4.5	Effect of movement in exchange rates on cash held	0	0
4.6	**Cash and cash equivalents at the end of the period**	**27,925**	**27,925**

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	22,224	21,581
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)		
	- Deposits for bank guarantees	281	296
	- Restricted cash (ARENA grant)	5,420	5,420
5.5	**Cash and cash equivalents at the end of the quarter (should equal item 4.6 above)**	**27,925**	**27,297**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1[3]	131
6.2	Aggregate amount of payments to related parties and their associates included in item 2	0

[3] Salary, Director's fees and superannuation paid to Directors ($131k)

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[4]	4,223	2,107
7.2	Credit standby arrangements	0	0
7.3	Other – convertible notes issued[5]	4,000	4,000
7.4	**Total financing facilities**	**8,223**	**6,107**

7.5	**Unused financing facilities available at quarter-end**[4]	2,116

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.

[4] $4.22 million Senior Secured Loan Facility with Mitchell Asset Management (MAM) in its capacity as trustee for the Mitchell Asset Management Go-Innovation Finance Fund (ABN 88 447 520 706). Interest is charged at a rate of 11% to 13% per annum, depending on the various conditions being met. The Facility is secured against all properties, proceeds or benefits of properties owned by Hazer. It has available one further drawdown of $2 million after meeting project milestones contained in the loan agreement. The loan has a term of up to 5 years, terminating 30 June 2025, with repayments expected from future R&D tax rebates.

[5] In April 2021, AP Ventures Fund II GP LLP received approval from the Foreign Investment Review Board (FIRB) for the investment of $4 million and acquired 4 million unlisted, unsecured $1 convertible Notes issued by Hazer.

The Convertible Notes (Notes) were issued in April 2021 and can be converted into Hazer ordinary shares between 30 November 2021 to 12 April 2026.

If the Notes are not converted before their Maturity Date on 12 April 2026, the holder may elect Hazer to repay the amount owing for the outstanding convertible notes at nil interest. The Notes are unsecured debt obligations of Hazer and rank equally with other unsecured creditors.

8.	**Estimated cash available for future operating activities**	**$ A'000**
8.1	Net cash from / (used in) operating activities (Item 1.9)	(169)
8.2	Cash and cash equivalents at quarter-end (Item 4.6)	27,925
8.3	Unused finance facilities available at quarter-end (Item 7.5)	2,116
8.4	Total available funding (Item 8.2 + Item 8.3)	30,041
8.5	**Estimated quarters of funding available (Item 8.4 divided by Item 8.1)** [6]	**178**

[6] With the receipt of $1,326,917 during the quarter for the R&D tax rebate used as an input, calculating the *Estimated quarters of funding available,* the result is potentially misleading. Adjusting the methodology by using the average R&D tax rebate over 4 quarters (i.e. $331,729) is considered more appropriate for the reporting quarter as an input in the calculation.

The recalculated amount, using the average R&D rebate, received results in the *Estimated quarters of funding available for the reporting quarter of 25.*

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

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: N/A

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

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

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 2022

Authorised by: By the board
(Name of body or officer authorising release – see note 4)

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.