

## **AGM CHAIRMAN'S ADDRESS & CEO PRESENTATION**

**PERTH, AUSTRALIA; 8 DECEMBER 2021:** is pleased to provide the following Chairman's address and CEO Presentation to be made at the Company's 2021 Annual General Meeting at 1.00pm AWST today.

### **Chairman's Address**

Since we last met in November 2020, the world has again been dominated by the global response to the Covid-19 pandemic. This has made the operating environment for all companies particularly difficult and heightened uncertainty. Indeed as many of us may have been hoping that 2022 would bring some reversion to a more normal operating environment, the emergence of the Omnicron variant in late November has cast a significant shadow on this prospect.

Within this challenging environment, Hazer has made significant progress towards commercialising its technology.

2021 has seen us substantially progress the design, fabrication, installation, and construction of the Hazer Commercial Demonstration Project at the Woodman Point Water Recovery Facility. The Project is expected to be ready for commissioning in 1Q 2022. The Project has encountered a number of challenges, some due to its first-of-kind nature and the large number of unknowns carried into the design phase, some triggered by the restricted operating environment and increased costs for skills, equipment and materials seen across the market.

We acknowledge that there have been cost increases through the year. Positively we do not see this impacting the longer-term position of our technology. We remain well funded to deliver the Project, including through the continued support of ARENA and our shareholders. I'd like to recognise the very hard work of the project team undertaking a first-of-kind project within this very challenging operating environment. We look forward to the operation of the CDP in 2022 with great excitement. This remains a key step in further developing the opportunities we are exploring with potential international partners, as well as supporting the further advance of opportunities related to the Hazer Graphite.

We are confident that the CDP provides Hazer with a strong platform in the emerging market for low emission hydrogen. We are pleased that international interest in the Hazer Process has significantly increased in 2021 as we have progressed the CDP. The strong technical development underpinning the CDP has provided us with a credible base to engage with Tier 1 potential collaboration partners and customers. We expect significant progress in FY2022 as we commission the CDP and advance opportunities for the next generation of projects.

2021 also marked a key milestone in the global program to combat climate change with the conclusion of the Glasgow COP26 meeting that had been deferred from November 2022. COP26 has resulted in some significant commitments, notably a re-committment to achieving the Paris Goals of keeping global warming well below 2 degrees C, and an agreement to meet again next year to consider more ambitious targets (rather than four years hence). Advances on establishing international carbon trading are significant, as establishing well-recognised international carbon prices is critical to bringing forward the markets for low emissions technologies such as ours. Moves to curb the un-abated use of fossil fuels also gathered strength, if not achieving all the some wished. The drivers of these changes are not likely to diminish, as exhibited by the subsequent bi-lateral agreement to work together on climate change between Presidents Biden and Xi, and we can reasonably expect further action in coming years. We believe Hazer's technology is well placed to reduce greenhouse gas emissions by providing a technology for low-emission hydrogen and graphite production that can work flexibly with large scale systems for the production of green hydrogen from electrolysis

On the corporate side, we were delighted to welcome AP Ventures to our register through a strategic investment of convertible notes and options for a total consideration of \$4 million.

We also further strengthened our balance sheet through a combined placement to institutional and sophisticated investors and a Share Purchase Plan to raise a total of \$14 million in September & October 2021. I would like to thank those shareholders who took up their entitlement as these funds enable us to continue developing and growing the Company.

We are delighted by the strong support that has been shown for Hazer during the year from both existing and new shareholders. This has enabled our significant progress over the last 12 months in the commercialisation of Hazer's technology.

Finally, I would like to acknowledge some upcoming changes to the Board of Hazer and welcome new Directors who have joined us in 2022.

Professor Andrew Harris has decided not to nominate for re-election as a Non-Executive Director of Hazer Group and will cease as a Director of the Company after closing this Meeting. Andrew has served on the Board of Hazer since 2016, providing support and advice to the team as we took the technology from desktop studies at the University, through pilot plant development and onto securing the Hazer CDP. On behalf of the Board and Management, I would like to thank Andrew for his contribution to Hazer.

I would like to welcome Andrew Hinkly and Dr Jack Hamilton to the Board of Hazer, who are valuable additions to the Hazer Board as we continue to develop our technology and grow the Company. Both Andrew Hinkly and Dr Jack Hamilton stand for election at this AGM.

Andrew Hinkly, Managing Partner of AP Ventures, brings significant experience through his extensive commercial career in corporate roles and stewardship of numerous investments in the hydrogen sector and the international hydrogen value chain. We look forward to building on the collaborative relationship established with Andrew and APV through the investment process and believe he will provide invaluable assistance to the Hazer Board and Management.

Dr Hamilton is a highly experienced executive and board director with strong business acumen gained from 20 years of senior leadership roles in the energy sector. He has extensive management expertise in strategy development, operations and manufacturing, project management, marketing/business development and commercial ventures. Jack has held numerous Chair and Board positions in Company's developing new technology, investing in infrastructure and operating in the energy industry.

The Board considers both Andrew and Jack to be excellent candidates for the Board of Hazer and strongly recommends all shareholders vote in favour of their election.

Finally, shareholders, let me thank you for your loyalty and support through this year and for many over a long journey. I think we are at a very exciting stage for the Company. The key challenges ahead of us remain to successfully commission the CDP, and secure future projects that will grow our technology behind the initial demonstration scale. I remain confident in the team's capability to achieve these stretching goals. As the world looks increasingly towards a green future, the focus on hydrogen has continued to increase, and the need for a range of low-carbon hydrogen production solutions only becomes more paramount. We believe the future for our Hazer technology is extremely bright.

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 rather 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 future 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 LIMITED**

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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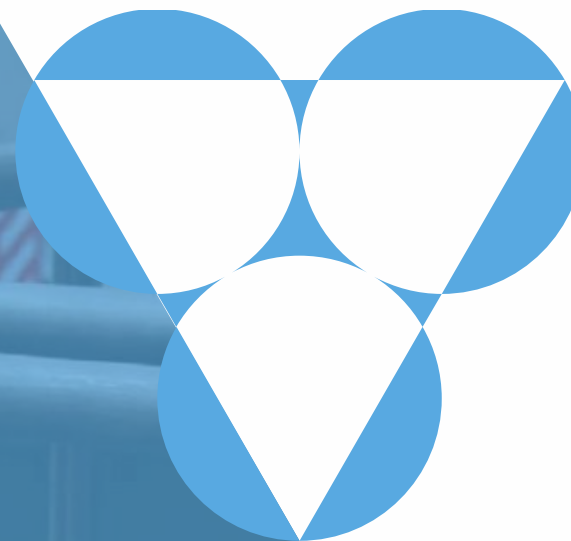


# Hazer Group

## ASX: HZR

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CEO Presentation and Company Update 2021  
8 December 2021



# Disclaimer

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## Important information

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# Major Achievements of FY21

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In a challenging operating environment Hazer made significant progress in FY 2021 setting the foundations for future success

1. **Commercial Demonstration Project (CDP) at Woodman Point WA progressed with completion targeted for 1Q FY22** – permitting, engineering, procurement, fabrication and construction are fully underway
2. **Technology Development & scaling up the Hazer process** – program incorporated learnings from the CDP detailed design engineering; and studies completed covering future reactor development and PFS level cost estimate for a 2,500 tpa plant
3. **Business Development of Frontier Hydrogen Market** – advanced activity with potential customers and collaborators in Asia, Europe, and North America; 15 parties granted access to technical data-room for initial technology validation
4. **R&D Program to create a new market** – Innovative Manufacturing CRC grant extended for 12 months; investigation into clean purification techniques to bring Hazer Graphite purity to 99%+ set to continue in 2022
5. **Strengthened balance sheet** – AP Ventures joined share register in April (\$4 million) and successful capital raising in September / October (\$14 million)



# Hazer Commercial Demonstration Project



## Project Summary

• Location	Woodman Point WWTP (WA)
• Feedstock Type	Biogas
• Feedstock Vol.	~2 million Nm <sup>3</sup> /year
• Hydrogen	100 tpa (99.99% purity)
• Graphite	~380 tpa (90 - 95% TGC)
• Site Area	~4,000 m <sup>2</sup>
• Reactor Design	Pressurised Fluidised Bed
• Heating	Electrical Heating

# Commercial Demonstration Project Update

- Reactor module fabrication is awaiting finalisation in China with power shortages causing additional delays to final heat-treatment
- Reactor scheduled for transport to Australia at end-December; but delivery may be delayed due to Chinese logistical difficulties
- Furnace assembly completed and delivered; waiting for reactor delivery to allow assembly
- Connection to Western Power grid completed
- Motor Control Centre / Main Switch Room delivered and installed; connection progressing
- Construction of main structure underway; schedule completion before end year
- CAPEX target of \$23 - \$25 million

Permitting	95%+
Engineering	95%+
Procurement	90%+
Fabrication	75%+
Construction	50%+

**Hazer remains fully funded to deliver CDP project at Woodman Point**



# Technology Development

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**In 2021 activities provided data for the scale-up and cost reduction of the Hazer Process**

- **Learnings from the CDP detailed design engineering**
  - Completion of external engineering studies and identifying the needs of potential partners have driven the technology development strategy in 2021
- **Reactor Development study completed in 2021**
  - Aim to identify future reactor developments that deliver higher capacity at reduced cost
  - Identified multiple potential reactor development strategies following the identification limitations with the current hot-wall reactor design during the detailed design phase
  - Preferred option to use carbon-steel materials and an internal induction heating system
  - Program to develop a second reactor has commenced; target to have a “Mark II” Reactor constructed and installed at CDP within 12 – 15 months
- **Completed cost optimisation study with Chiyoda Corporation**
  - Indicative target CAPEX of <A\$60m for a 2,500 tpa Hazer Project
  - Simplified Hazer configuration for integration with industrial opportunities identified through customer discussions; these provide opportunity for significant CAPEX reduction

# Business Development

Interest in Hazer technology continues to grow - through 2021 we have continued to build relationships with potential international partners and advanced their familiarity with our technology

- **2022 Business Development Strategy**
  - Develop 1 or 2 locations to host first generation commercial Hazer Projects targeting locations that have;
    - supportive local partners
    - strong government support for de-carbonization initiatives
    - active promotion of uptake of hydrogen
    - access to low-carbon electricity grid
    - affordable gas supplies
    - limited alternative hydrogen production opportunities
  - Project size nominally 2,000 – 3,000 tpa H<sub>2</sub>
  - Targeting first project to be operational ~2025
- **Partnership Strategy** – Actively engaged with Tier 1 potential partners and customers across Europe, Asia, and North America.
- **Collaboration and development of frontier Hydrogen Market** – 15 parties admitted to internal technical data-room to progress technology validation, while their own internal hydrogen development plans are matured and customer opportunities secured.

# Research & Development

**Progress on R&D regarding purification of Hazer Graphite has been slower than hoped; program reset for 2022**

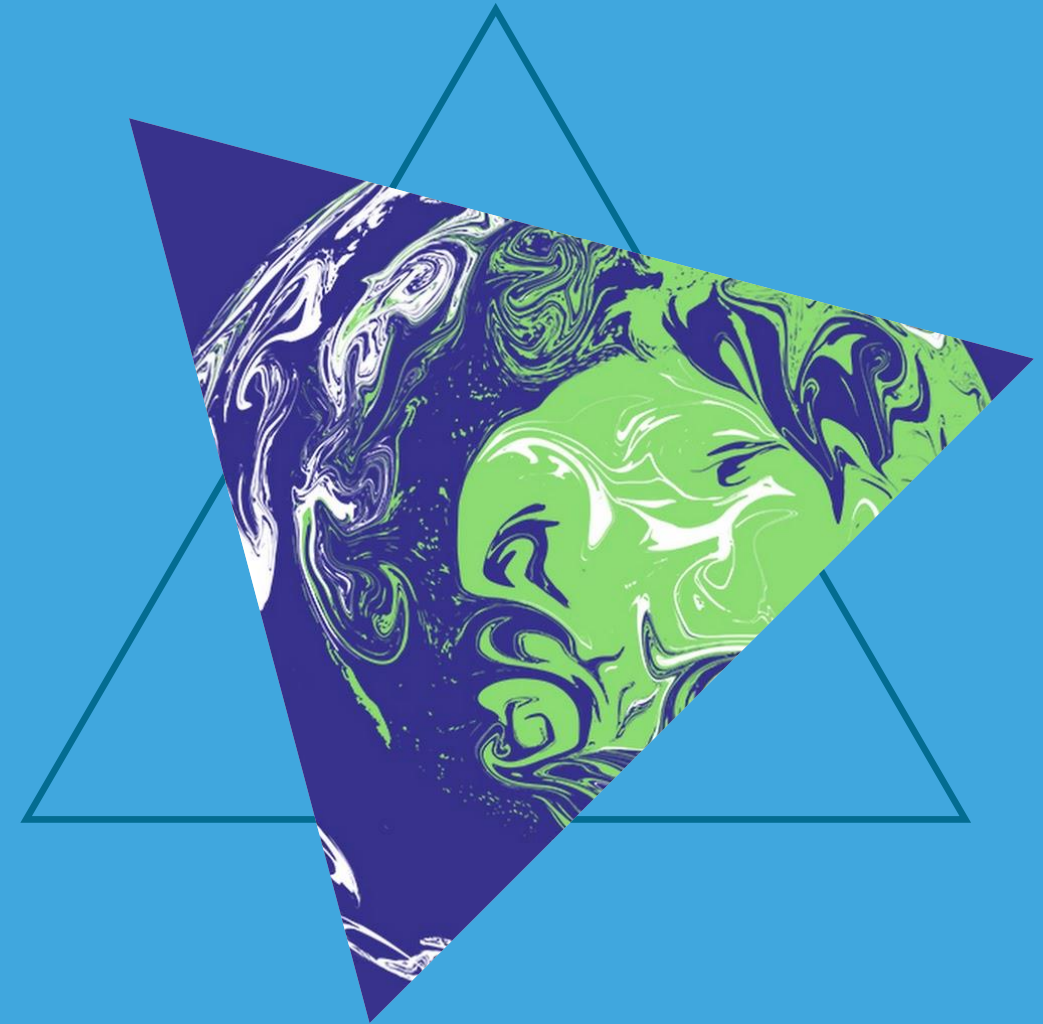
- **Funding Research**
  - Extended our collaboration with Innovative Manufacturing CRC until September 2022 (maintain government co-funding of our R&D program)
  - Identified new funding programs for 2023 and onwards to maintain our ability to invest in R&D.
- **Research & Development throughout 2021**
  - Phase 1 of the R&D trial into clean purification techniques to bring Hazer Graphite purity to 99%+ has completed; results support continuing this investigation program in 2022.
  - R&D team investigating applications of Hazer Graphite across battery materials, energy storage, building materials manufacturing, and metals processing activities.
- **Hazer Graphite Applications**
  - Development of graphite opportunities limited by the size of samples available; materials produced from the pilot have been substantially used in investigations and customer tests undertaken to date.
  - Implementation of the CDP will allow us to produce larger samples to advance discussions through provision of larger batch samples (100 kg +) to interested parties.

# Glasgow COP26

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**Despite concerns, significant outcomes were achieved at the COP26 conference in November 2021**

- Nationally Determined Commitments (NDCs) show a reduction in trajectory of temperature rise to 2.4 oC by end of the century; including nominated aspirational goals indicates a 1.8 oC temperature rise.
- Hydrogen was a key focus of COP26 discussions; widely seen as a critical element of meeting Paris Objectives.
- Significant agreements reached on developing international carbon trading mechanisms; this is critical to driving uptake of low carbon technology.
- Strong push for further action to increase ambition (particularly around phase-out of fossil fuels); parties committed to meet in 2022 with further updated commitments.
- Bi-lateral agreement between USA and China on climate cooperation announced alongside COP26 summit.



# Financial Position

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**Throughout 2021 Hazer has strengthened its financial position and enhanced our share register; we remain well funded to deliver our program despite cost pressures in a difficult operating environment**

- **30 November**                 \$30.4 million in cash
  - **April 2021**                 \$4 million convertible note with strategic investor AP Ventures
  - **September 2021**         \$7 million placement to institutional and sophisticated investors
  - **October 2021**             \$7 million Share Purchase Plan; fully subscribed and closed early.
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- Capital raising completed at a substantial premium to previous raise undertaken in 2020
  - Strong share register with >13,000 individual shareholders and increased institutional support
  - Hazer remains fully funded to deliver its planned program



# 2022 Outlook

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**2022 will be another important year for Hazer as we deliver the completion of the CDP and look to secure a first larger scale Hazer Project**

- **Commissioning of the Hazer Commercial Demonstration Project (CDP) at Woodman Point WA**
  - Completion scheduled for 1Q FY22
- **Technology development & scaling up the Hazer process**
  - Develop Mk II Hazer reactor for installation at the Hazer CDP at Woodman Point
  - Continue to work with customers on industrial application and integration opportunities
- **Business development**
  - Negotiate and progress first commercial Hazer opportunity to Feasibility Study stage
- **Hazer Graphite – R&D program reset for 2022**
  - Continue investigation of novel purification technology
  - Continue investigations of Hazer Graphite applications across battery materials, energy storage, building materials, and metals processing activities
  - Advance discussions with potential graphite customers on novel applications and developing new product opportunities



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