

## WORLD HYDROGEN CONFERENCE PRESENTATION

**PERTH, AUSTRALIA; 10 May 2023:** Hazer Group Ltd ("Hazer" or the "Company", ASX: HZR) advises of its participation at the World Hydrogen 2023 Summit and Exhibition Conference being held this week in Rotterdam, the Netherlands.

Hazer's Managing Director, Mr Glenn Corrie, is attending this week's World Hydrogen 2023 Summit and Exhibition Conference in Rotterdam to discuss and present the Company with the European investment community.

Attached is the presentation that Mr Corrie will be speaking to at the summit.

This announcement was authorised for release by the Board of the Company.

**[ENDS]**

### 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 graphitic carbon production process. The Hazer Process enables the effective conversion of natural gas and similar methane feedstocks, into hydrogen and high-quality advanced carbon materials, using iron ore as a process catalyst.

### 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.

For further information or investor enquiries, please contact:

Email: [contact@hazergroup.com.au](mailto:contact@hazergroup.com.au)  
Phone: +61 8 9329 3358

For media enquiries, please contact:

**WE Communications – Hannah Howlett**  
Email: [HHowlett@we-worldwide.com](mailto:HHowlett@we-worldwide.com)  
Phone: +61 4 5064 8064

### Hazer Group Limited - Social Media Policy

Hazer Group Limited is committed to communicating with the investment community through all available channels. Whilst ASX remains the prime channel for market-sensitive news, investors and other interested parties are encouraged to follow Hazer on Twitter (@hazergroupltd), LinkedIn, Facebook, and YouTube.

Subscribe to HAZER NEWS ALERTS - visit our website at [www.hazergroup.com.au](http://www.hazergroup.com.au) and subscribe to receive HAZER NEWS ALERTS, our email alert service. HAZER NEWS ALERTS is the fastest way to receive breaking news about @hazergroupltd.



hazergroup.com.au

ASX:HZR

# Hazer Group Ltd

*Clean hydrogen technology  
to decarbonise the world*

World Hydrogen Summit, Rotterdam

10 May 2023



ersonal use only



# Disclaimer

## Important information

This presentation has been prepared by Hazer Group Limited ("Hazer" or "the Company")

**Summary Information** This document contains a summary of information about Hazer Group Limited and its activities that is current as at the date of this document unless otherwise stated. The information in this document is general in nature and does not contain all the information which a prospective investor may require in evaluating a possible investment in Hazer or that would be required in a prospectus or a product disclosure statement prepared in accordance with the Corporations Act 2001 or the securities laws of any other jurisdiction. The information in this document should be read in conjunction with the Company's other periodic and continuous disclosure announcements lodged with the ASX.

**No Liability** The information contained in this document has been prepared in good faith by the Company however no guarantee, representation or warranty expressed or implied is or will be made by any person (including the Company and its affiliates and their directors, officers, employees, associates, advisers and agents) as to the accuracy, reliability, correctness, completeness or adequacy of any statements, estimates, options, conclusions or other information contained in this document. No person other than the Company is responsible for the preparation of this document. To the maximum extent permitted by law, the Company and its affiliates and their directors, officers, employees, associates, advisers and agents each expressly disclaims any and all liability, including, without limitation, any liability arising out of fault or negligence, for any loss arising from the use of or reliance on information contained in this document including representations or warranties or in relation to the accuracy or completeness of the information, statements, opinions, forecasts, reports or other matters, express or implied, contained in, arising out of or derived from, or for omissions from, this document including, without limitation, any financial information, any estimates, forecasts, or projections and any other financial information derived therefrom. Statements in this document are made only as of the date of this document unless otherwise stated and the information in this document remains subject to change without notice. No responsibility or liability is assumed by the Company or any of its affiliates (or their directors, officers, employees, associates, advisers and agents) for updating any information in this document or to inform any recipient of any new or more accurate information or any errors or mis descriptions of which the Company and any of its affiliates or advisers may become aware.

**Authorisation** This document has been authorised for release by the Board of the Company.

**Forward Looking Statements** Statements contained in this document, including but not limited to those regarding the possible or assumed future production, costs, projected timeframes, performance, dividends, returns, revenue, exchange rates, potential growth of Hazer, industry growth, commodity or price forecasts, or other projections and any estimated company earnings are or may be forward looking statements. Forward looking statements can generally be identified by the use of words such as 'project', 'foresee', 'plan', 'expect', 'aim', 'anticipate', 'believe', 'estimate', 'may', 'should', or similar expressions. Forward looking statements including all statements in this presentation regarding the outcomes of preliminary and definitive feasibility studies, projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. These statements relate to future events and expectations and as such involve known and unknown risks and significant uncertainties, many of which are outside the control of the Company. Actual results, performance, actions and developments of the Company may differ materially from those expressed or implied by the forward looking statements in this document. Such forward looking statements speak only as of the date of this document. There can be no assurance that actual outcomes will not differ materially from these statements. To the maximum extent permitted by law, the Company and any of its affiliates and their directors, officers, employees, agents, associates and advisers disclaim any obligations or undertaking to release any updates or revisions to the information in this document to reflect any change in expectations or assumptions do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward looking statement or any event or results expressed or implied in any forward looking statement and disclaim all responsibility and liability for these forward looking statements (without limitation, liability for negligence). Nothing in this document will under any circumstances create an implication that there has been no change in the affairs of the Company since the date of this document.

**Not Financial Product Advice** This document does not constitute financial product advice or take into account your investment objectives, taxation situation, financial situation or needs. This document consists purely of factual information and does not involve or imply a recommendation of a statement of opinion in respect of whether to buy, sell or hold a financial product. An investment in the Company is considered to be speculative in nature and is subject to known and unknown risks, some of which are beyond the control of the Company. Before making any investment decision in connection with any acquisition of securities, investors should consult their own legal, tax and/or financial advisers in relation to the information in, and action taken on the basis of this document.

**Acceptance** By attending a presentation or briefing, or accepting, accessing or reviewing this document you acknowledge, accept and agree to the matters set out above.



# Investment Highlights

Well positioned to play a leading role in global decarbonisation



**Rapidly Growing Hydrogen Demand** with forecast global market size US\$12 trillion by 2030



**Innovative, Proven and Proprietary** low emission H<sub>2</sub> technology with strong competitive advantage



**Commercial Demonstration Plant** de-risking scale-up with production online in 2023



**Commercial Scale-Up** on-track with Suncor/Fortis Burrard-Hazer Plant, Canada



**Unique Potential** to benefit from growing global decarbonisation initiatives in traditionally hard-to-abate sectors



**Established Global Partnerships** across strategic markets with tier-1 partners

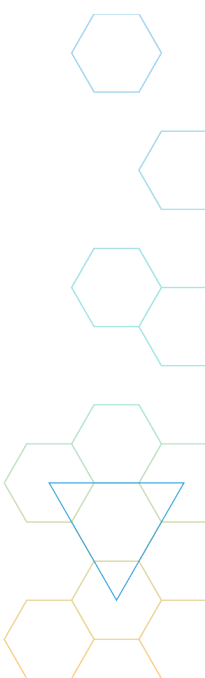


**Clear Pathway to Deploy and License Technology** in multiple jurisdictions at commercial scale



Experienced **Board and Management** team to execute on growth plan

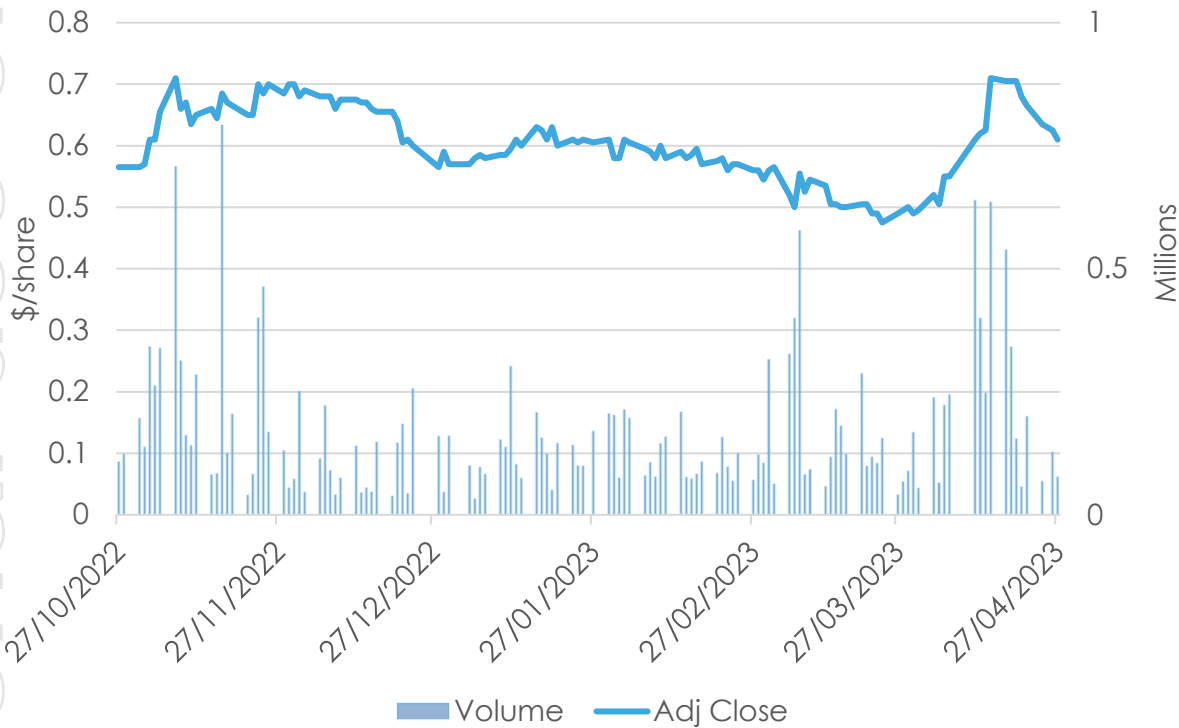
ersonal use only



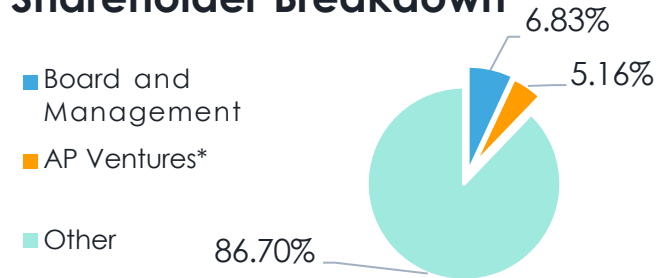


# Corporate Overview

## HZR:ASX Share Price History



## Shareholder Breakdown



\*AP Ventures largest shareholder

## Capital Structure as at 26 Apr 23

Share price	\$0.62
Market capitalisation (AUD)	\$106 million
Shares on issue	170,443,743
Debt as at 31 Mar 2023	\$4.7 million
Cash and cash equivalents*	~\$19 million
Enterprise value	~\$92 million
Capital /grant money invested to date	~\$70 million

\*R&D claim of ~\$9.45m received on the 5<sup>th</sup> April 2023

ersonal use only





# Building a leading position in a rapidly growing market

Hydrogen will play a key role in the decarbonisation of hard-to-abate sectors

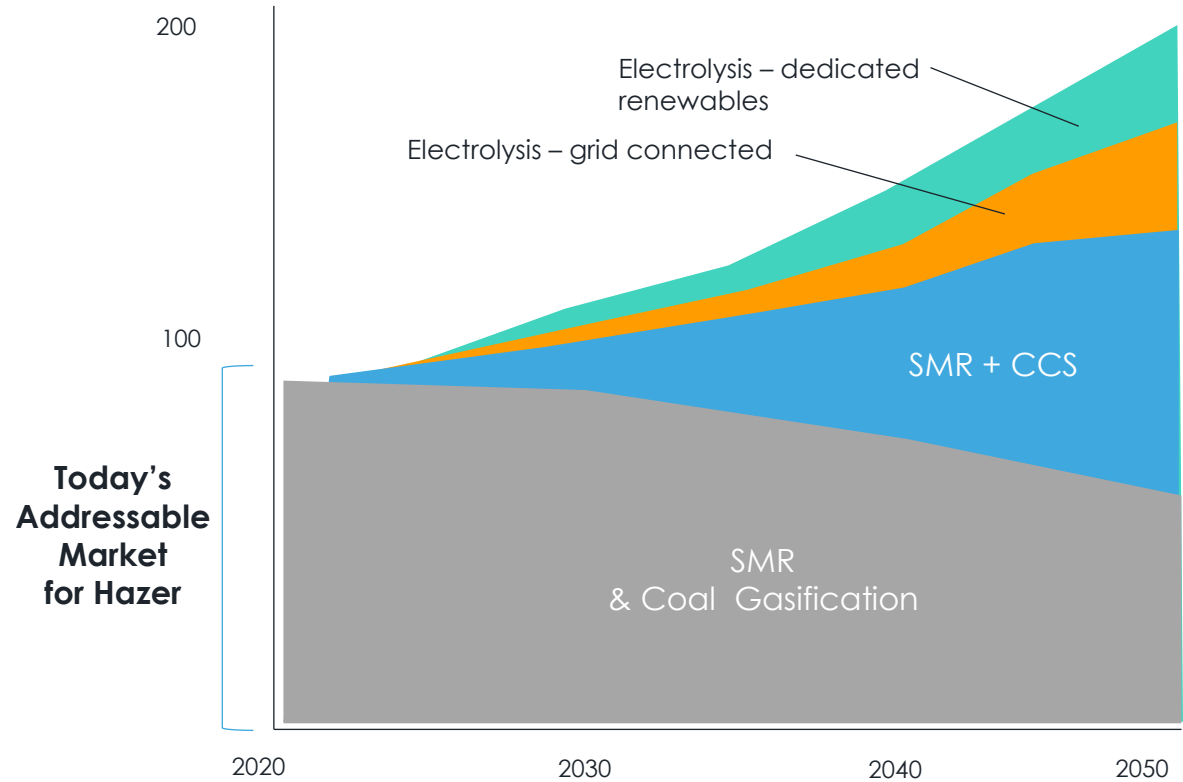
Current market  
~95 MTPA



500 MTPA  
in 2050\*<sup>1</sup>



© Getty Images



Global production of hydrogen as feedstock – in million tonnes p.a.<sup>2</sup>

<sup>1</sup>International Energy Agency (IEA) - The Future of Hydrogen

<sup>2</sup>DNV (June 2022) – 'Hydrogen forecast to 2050'

ersonal use only



# Executing scale-up strategy in hard to abate sectors

## Monetise market momentum and Hazer's unique technology

### Our Vision

Provide a unique climate technology to transform industry and contribute to a sustainable future for the next generation

#### COMMERCIALISE

Leverage Commercial Demonstration Plant into new projects.

Secure graphite offtake

enabler

CDP Online 2023

#### SCALE UP

Partnerships and scale-up into the target markets of North America, Asia and Europe.

Application in hard-to-abate industries

enablers

25x Canadian Scale-up

Japan & France up to 10 ktpa\*

#### MONETISE & GROW

Commercial scale projects in multiple jurisdictions under license agreements

Expand global portfolio

enabler

New Business Projects

Japan & EU Production Facilities

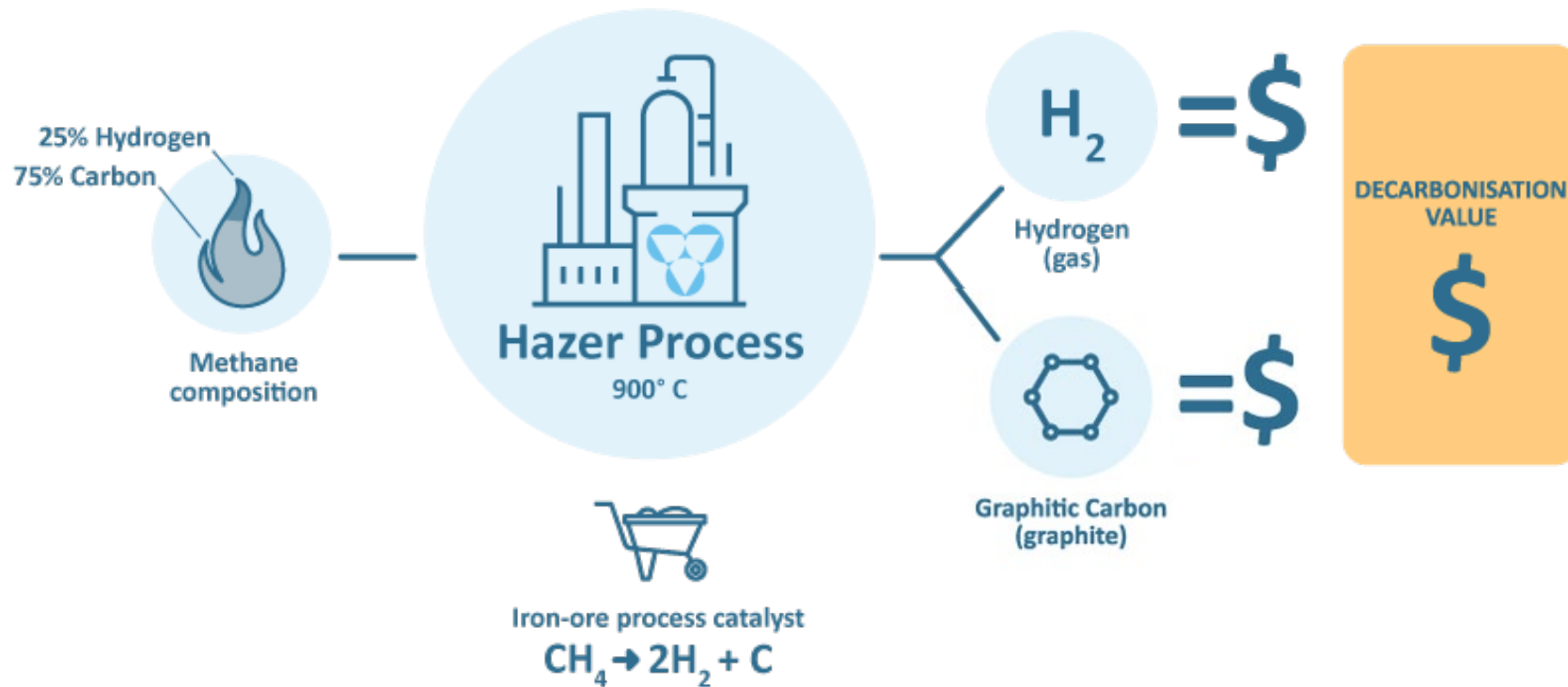


\* Refers to thousands ('000) of tonne per annum

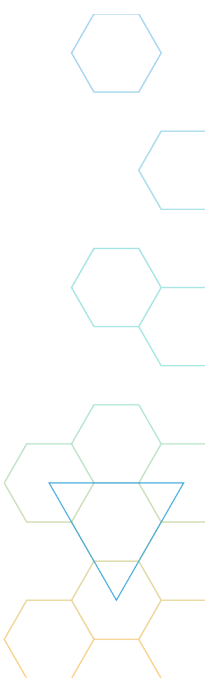
Personal use only

# The Hazer competitive advantage

Innovative low emission methane pyrolysis technology designed to produce clean hydrogen and graphitic carbon



ersonal use only







# Current technologies face multiple challenges

Hazer technology well positioned as a low-cost, low-emissions Hydrogen technology

## Existing Technologies

### Steam Methane Reforming (SMR)

#### Significant CO<sub>2</sub> emissions

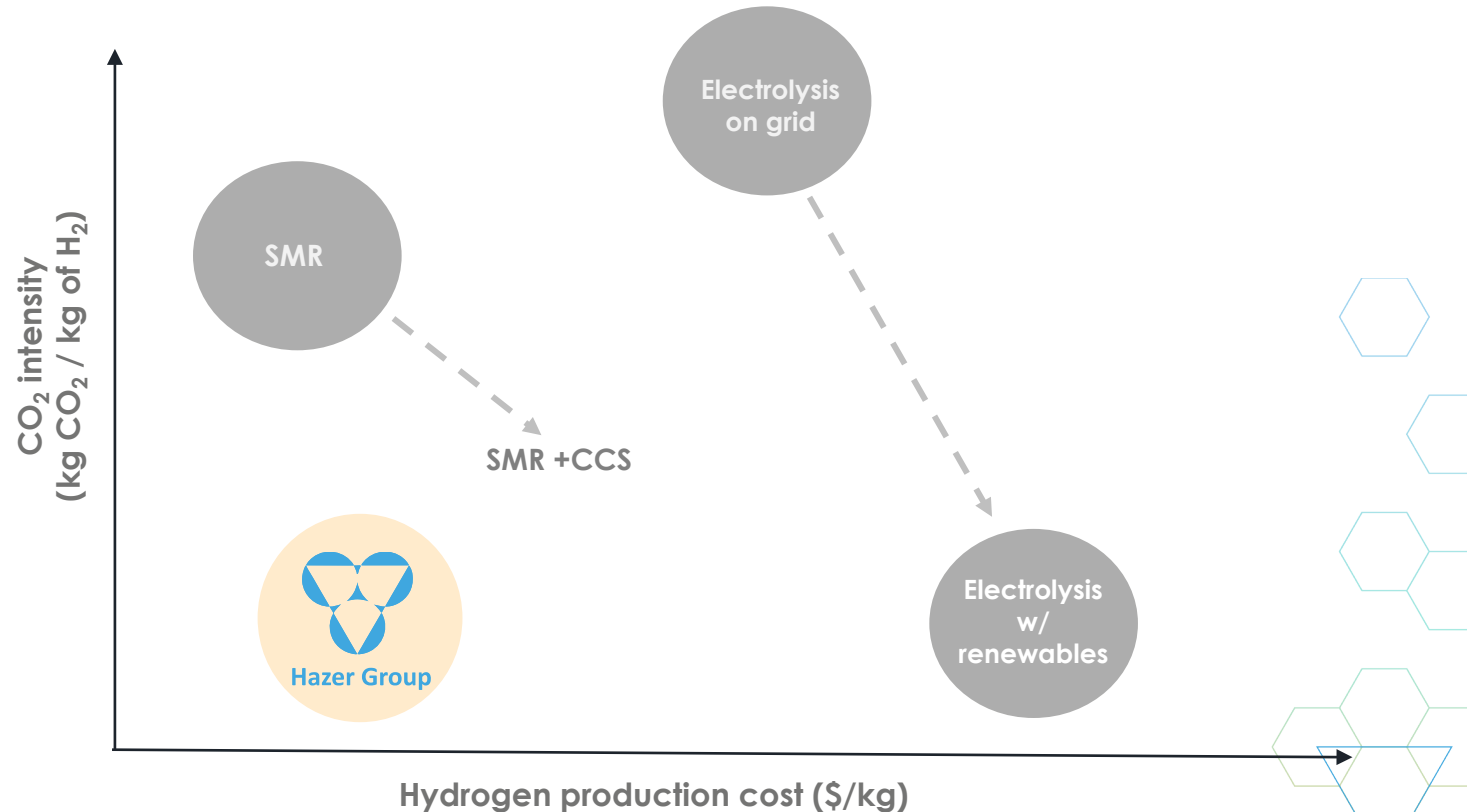
- Most widely used process for the generation of hydrogen (~95%)
- High CO<sub>2</sub> emissions
- Requires CCS\* to address emissions; expensive and difficult



### Electrolysis

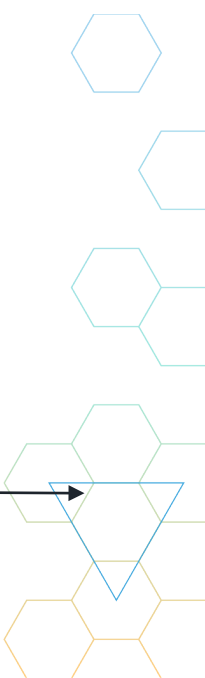
#### Energy intensive process

- 7x more energy intensive than SMR
- Only low emission if 100% renewable energy
- Requires significant water and renewable energy



\*CCS = Carbon Capture & Storage. Requires geological formations for CO<sub>2</sub> sequestration

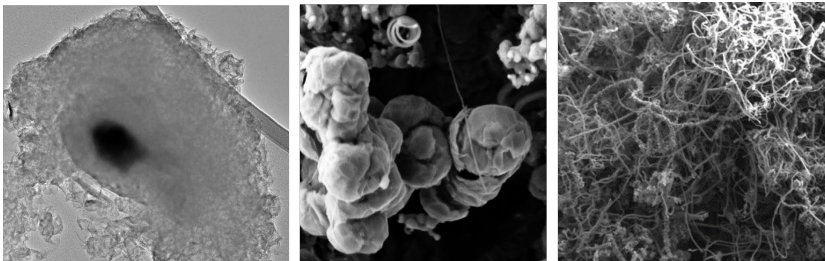
ersonal use only



# Unlocking the value of Hazer graphitic carbon

## Unique graphitic material tailorable to different markets

- Current focus is on high volume hard to abate sectors for early offtake – such as steel industry
- Graphite purity ex-reactor 80 - 95% (wt) - can be increased to >99+% using various purification techniques
- Longer maturity prospects in high value markets in development such as energy storage



## Mitsui MOU Hydrogen & Decarbonisation Strategy

- Mitsui & Co is a leading international trading and investment group based in Japan.
- MOU signed with Mitsui to jointly investigate the market for Hazer graphite.
- Explore possible customers, applications and partners in Asia, Oceania, Northern America, Europe and the Middle East.
- Focus on hard to abate sectors such as steel making and chemical industries.



ersonal use only





# Successful technology development & up-scaling

Rapid development since company founding and advancing Tech Readiness Level (TRL)

(<1g\* batch)



2007–2013

(<100g\* batch)



2016–present

(~1Kg\* batch)



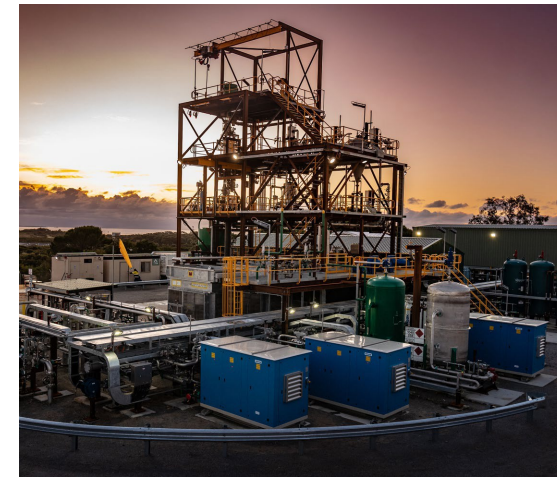
2017

(~<2 kg/hr\* semi-continuous)



2017–2021

(< 60kg/hr\* continuous\*\*)



2022-2023

25x Scale-up Plant



2025

hazergroup.com.au

- Bench scale testing**
- University of Western Australia
  - PhD (Dr. A. Cornejo)
  - Concept evaluation

- Scaled up bench test**
- University of Sydney
  - Catalyst kinetics and process research

- Bench scale fluidised bed**
- University of Sydney
  - Conceptual testing of fluidised bed concept

- Pilot Plant**
- Sydney and Perth
  - Fluidised bed with optimized conditions and catalyst injection

- Commercial Demonstration Plant (CDP)**
- Perth, Australia
  - End-to-end continuous plant with biogas feed
  - Start up planned 2023

- Burrard-Hazer Hydrogen Project**
- BC, Canada
  - 2,500tpa
  - Targeted RFSU 2025

\*Combined product scale \*\*CDP planned start up 2023



# Established presence in target markets

## NORTH AMERICA

- MOU with Suncor and FortisBC to develop 2,500 tpa Hazer facility in Canada



## EUROPE

- MOU with ENGIE to develop hydrogen production facility in EU



## ASIA

- Mitsui MOU to investigate market for Hazer graphite
- PDP with Chubu & Chiyoda for Hazer facility in Japan\*



## POLICY SUPPORT

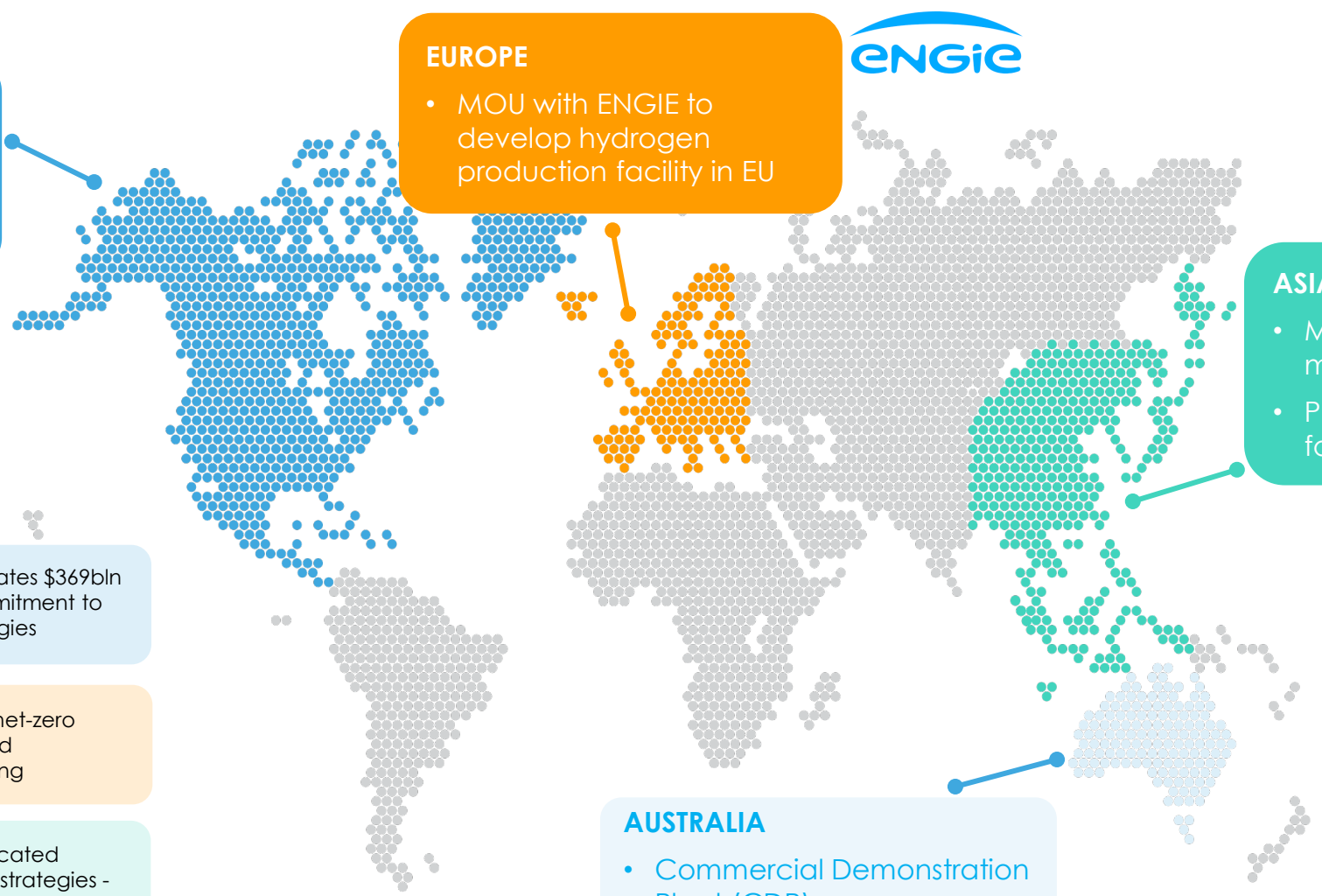
**North America** **Inflation Reduction Act** allocates \$369bn to climate stepping up commitment to develop hydrogen technologies

**Europe** **Green Deal & GDIP** supports net-zero technology development and accelerating access to funding

**Asia-Pacific** Selected countries with dedicated decarbonisation / hydrogen strategies - Japan, Korea, Singapore & Australia

## AUSTRALIA

- Commercial Demonstration Plant (CDP)



\* PDP refers to Project Development Plan

# Transformational project in Japan market

Hazer successfully expands its relationship with existing partner Chiyoda to jointly prepare a development plan with Chubu Electric for a Hazer facility in Chubu, Japan



Preparation of a Project Development Plan (“PDP”) for a commercial scale facility

Target H<sub>2</sub> production capacity up to 100,000 tpa, with an initial capacity between 2,500-10,000 tpa

Chubu Electric to utilise H<sub>2</sub> as a fuel for power generation and for industrial applications

Plan to be completed during 1H 2024. Targeted initial start-up late 2020's

ersonal use only

# Advancing collaboration for first project in EU

Facility to be located at the existing LNG import terminal in Montoir-de-Bretagne, France

- Partnering with ENGIE, a French multinational utility company
- 2022 Pre-Feasibility Study confirms Hazer can meet EU frameworks for low-emissions hydrogen production
- Preparation of Project Development Plan for commercial-scale facility with production capacity of at least 2,500 tonne per annum
- Project site identified as existing LNG import terminal at Montoir-de-Bretagne, operated by ENGIE's affiliate company ELENGY
- H2 to be used in a variety of application including industry and mobility



LNG tankers at the Montoir-de-Bretagne LNG terminal, France

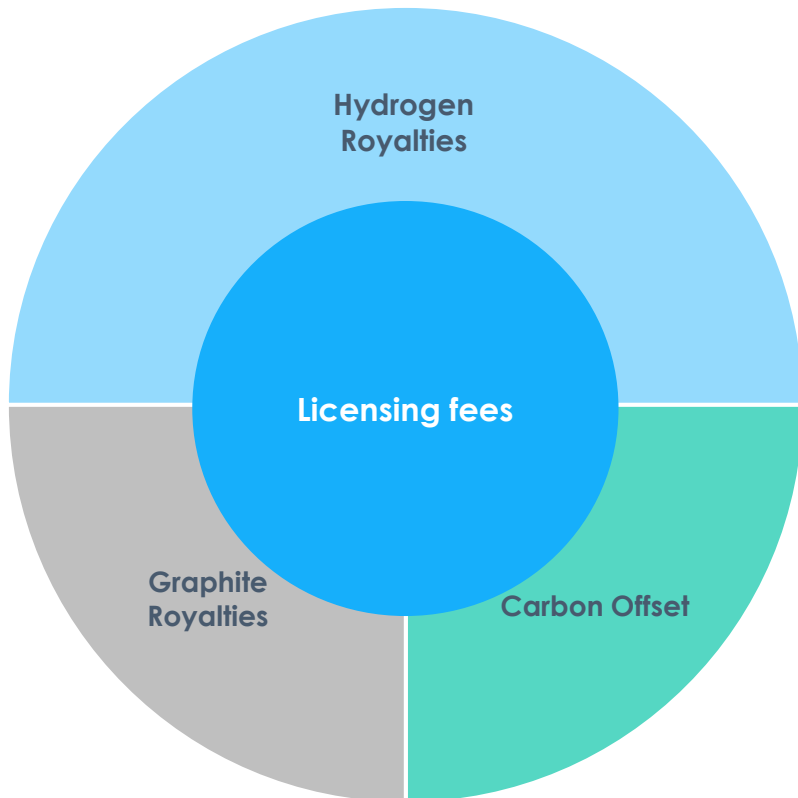
Image rights: © ELENGY 2022



ersonal use only

# “Capex-lite” business model to enable early free-cashflow

Hazer business plan premised on licensing and royalty revenues avoiding large-scale capex exposure



## One technology, two markets

- OPEX shared by two product streams (H<sub>2</sub> & graphitic carbon)
- Competitive differentiator is its ability to serve supply & demand side

## Revenue model to include a combination of license fees and royalties

- Fixed annual license fees commensurate with plant size
- Royalties a percentage of H<sub>2</sub> and graphitic carbon revenues

## “Capex-lite” approach focuses Hazer’s strength as technology provider and licensor:





- Partnership model targets tier-1 project proponents, e.g. Suncor, with expertise in project management & EPC
- Any capex exposure risk-assessed on strategic & commercial merit

ersonal use only





# Key Activities

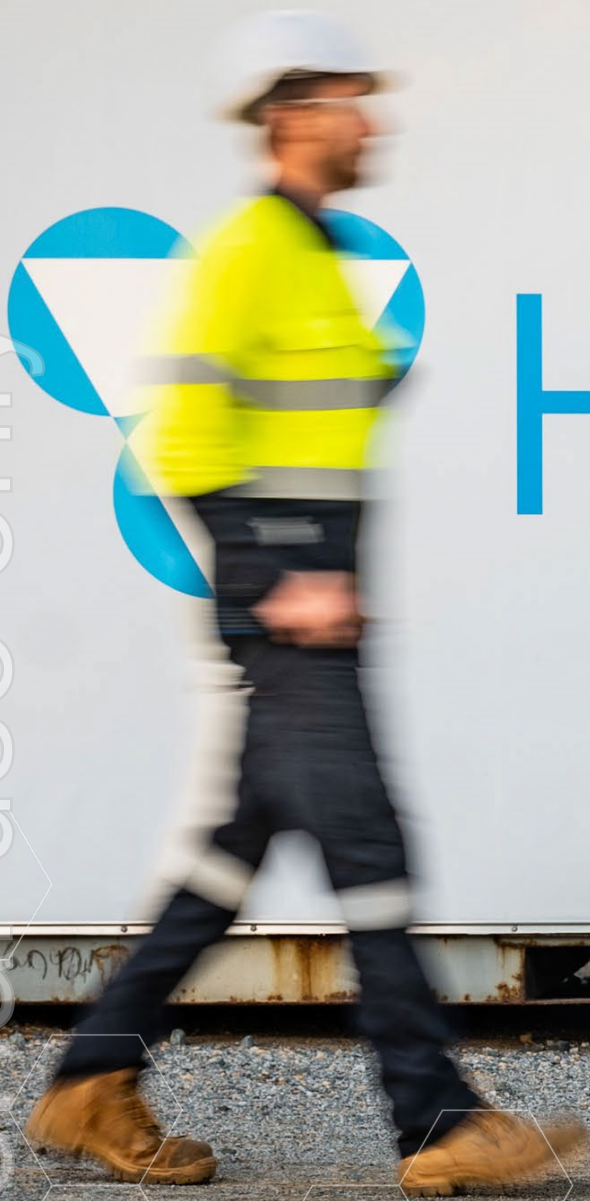
	CY2023		CY2024	
	H1	H2	Q1	
<b>Commercial Demonstration Plant (100 tpa)</b>	Procurement and fabrication, Engineering & Installation			
		Ready for Start-up		
			Final Commissioning	
<b>Suncor &amp; Fortis 2,500 tpa Burrard Plant</b>	FEED Studies in Canada and targeted FID			
<b>Mitsui MOU</b>	Developing market for Hazer Graphite			
<b>NEW Potential Projects</b>	 Negotiate Commercial Agreements			
<b>Corporate Updates</b>	 ARENA Grants	 R&D Rebates	Site Visit	 ARENA Grants

ersonal use only





ersona  
use only



# HazerGroup™

▼  
**Hazer Group Ltd**

ASX:HZR

**Investor Relations Enquiries:**

[contact@hazergroup.com.au](mailto:contact@hazergroup.com.au)

**Media Enquiries:**

[hhowlett@we-worldwide.com](mailto:hhowlett@we-worldwide.com)

 **HazerGroup™**



[hazergroup.com.au](http://hazergroup.com.au)