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ASX:HZR

Hazer Group Ltd

*Clean hydrogen technology
to decarbonise the world*

Investor Presentation
April 2023





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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 H₂ 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



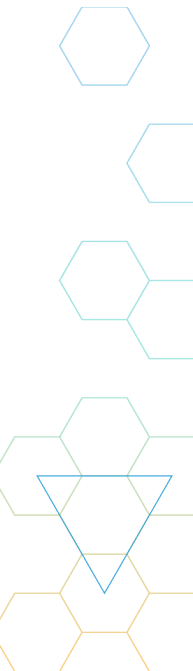
Established Global Partnerships across strategic markets with tier-1 partners



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



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





Experienced Management Team & Board

Management Team

Board

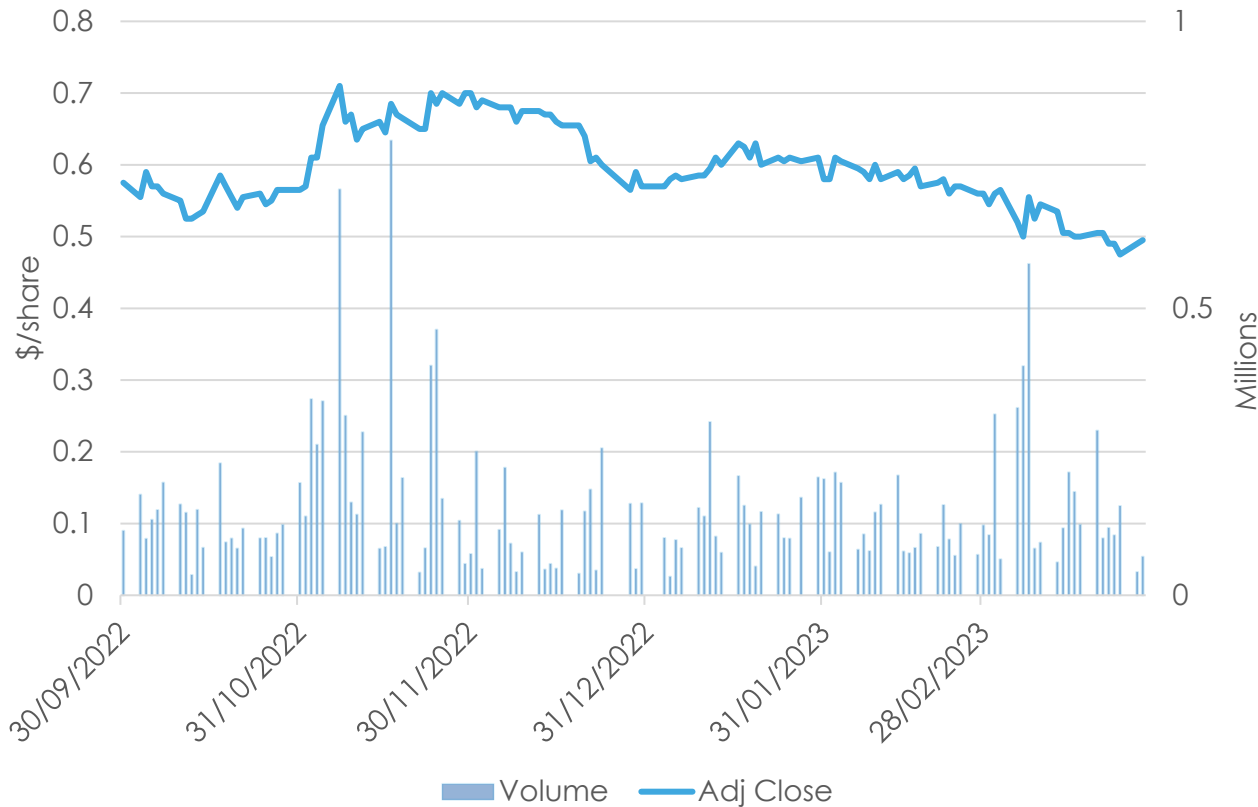
									
Glenn Corrie	Dr Andrew Cornejo	Neil Brodie	Mark Edwards	Luc Kox	Belinda Wilson	Tim Goldsmith	Danielle Lee	Dr Jack Hamilton	Andrew Hinkly
MD / CEO	Co-Founder & CTO	Interim CFO	COO	CCO	CPO	Chairman	Non-Executive Director	Non-Executive Director	Non-Executive Director
25 years energy, PE and investment experience. Previously CEO of ASX listed Sino Gas & Energy and PE backed NEO Energy. Senior executive positions with Temasek, Ophir Energy and Shell.	Co-founder of Hazer Group and inventor of the Hazer process. 15 years technical engineering experience in R&D, advisory and resource development roles.	Senior finance, executive (ACMA) with over 25 years of financial, commercial and corporate governance expertise predominantly with Chevron in Oil & Gas, & in energy transition/renewables.	Mechanical engineer with 30 years experience in industry. Former AUA regional director for light metals division at Hatch.	20 years experience in the water, oil & gas and renewable energy sectors.	25 years shared services experience in a variety of sectors, working with executives to develop business strategy and positive corporate culture.	Over 30 years corporate and commercial experience across international mining and industrial business operations. 20 years as partner with global professional services group PWC and 5 years as CEO Rincon Lithium.	Corporate lawyer with more than 25 years experience having worked in private law firms, in-house counsel and the ASX.	Career spanning over 30 years in the energy sector, holding senior positions with Shell and Woodside	Founding managing partner of AP Ventures. 25 years working in the automotive and mining industries



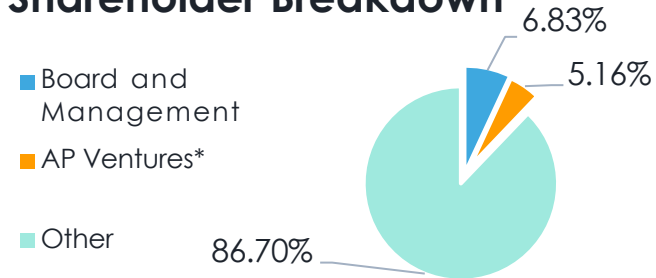


Corporate Overview

HZR:ASX 6-Month Share Price History



Shareholder Breakdown



*AP Ventures largest shareholder

Capital Structure as at 29 Mar 23

Share price	\$0.50
Market capitalisation (AUD)	~\$85 million
Shares on issue	170,443,743
Debt as at 31 Dec 2022	\$4.6 million
Cash* as at 31 Dec 2022	\$12.5 million
Enterprise value	\$82 million
Capital /grant money invested to date	~\$70 million

*R&D claim of ~\$9.5m submitted and receipts expected in 1H 2023



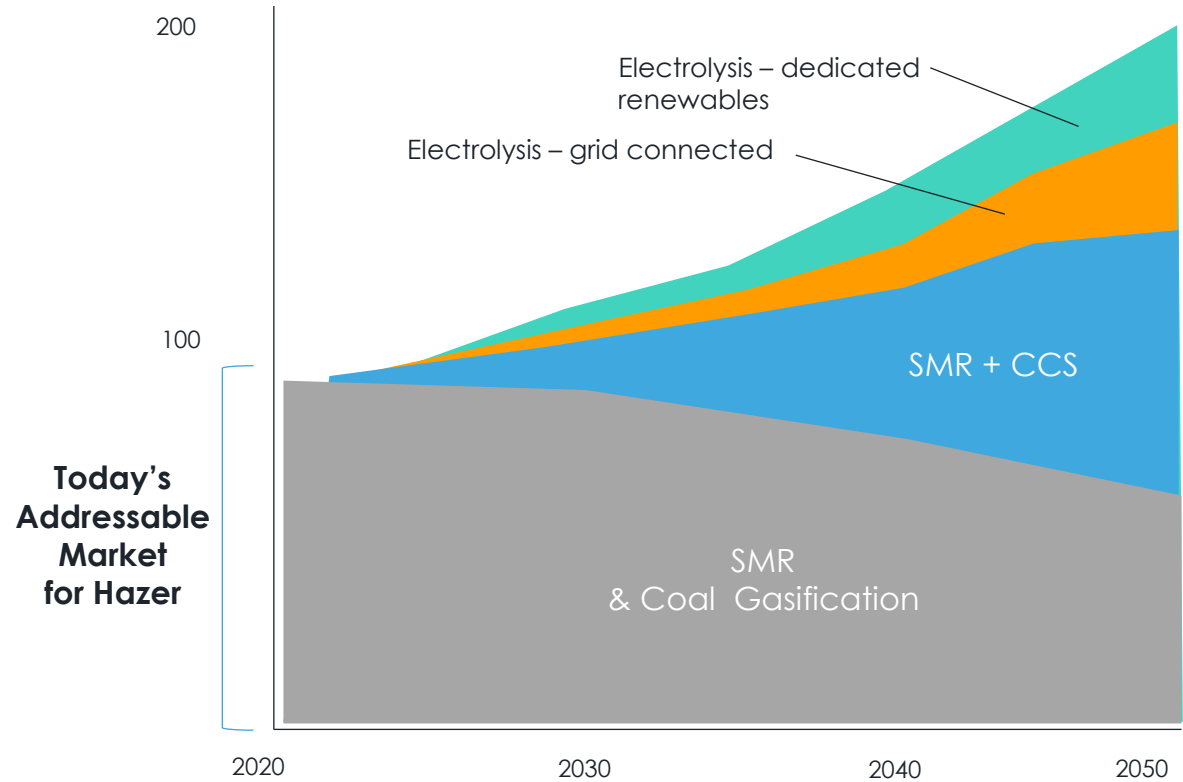


Building a leading position in a rapidly growing market

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

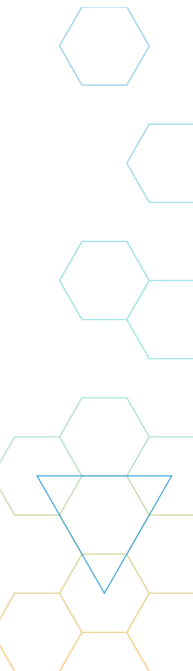


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¹International Energy Agency (IEA) - The Future of Hydrogen

²DNV (June 2022) – 'Hydrogen forecast to 2050'



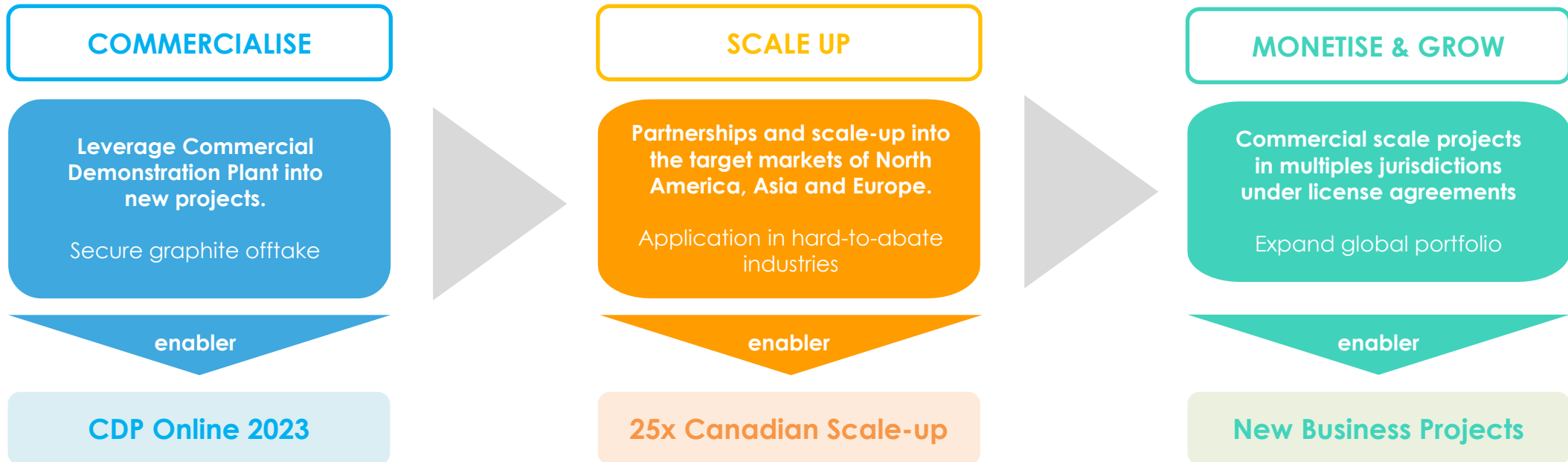


Strategy: Hazer staged growth plan

Monetise market momentum and Hazer's unique technology

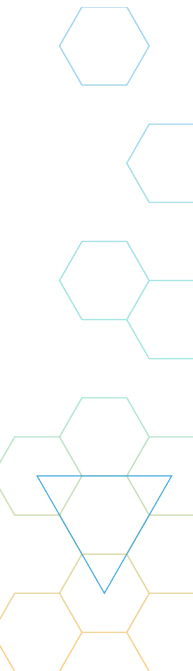
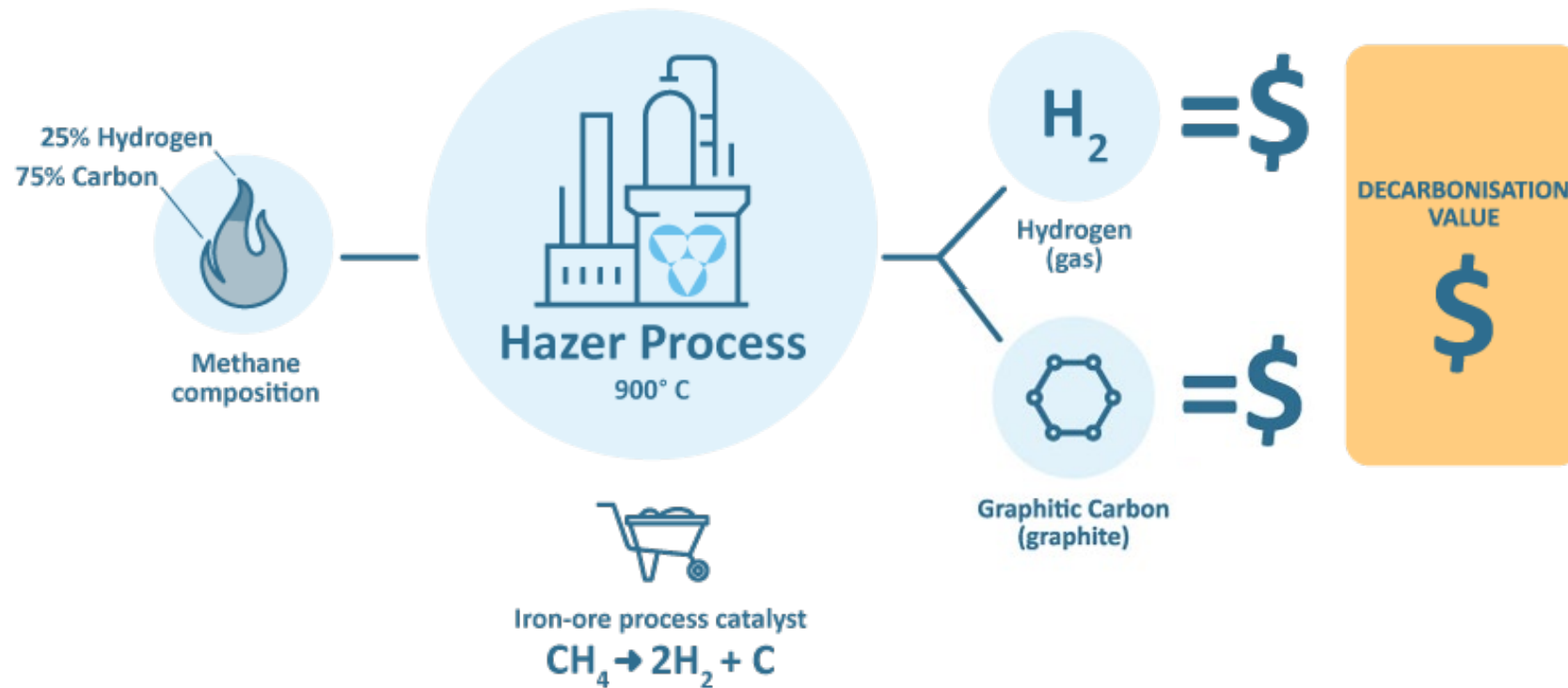
Our Vision

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



The Hazer competitive advantage

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





Current technologies face multiple challenges

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

Existing Technologies

Steam Methane Reforming (SMR)

Significant CO₂ emissions

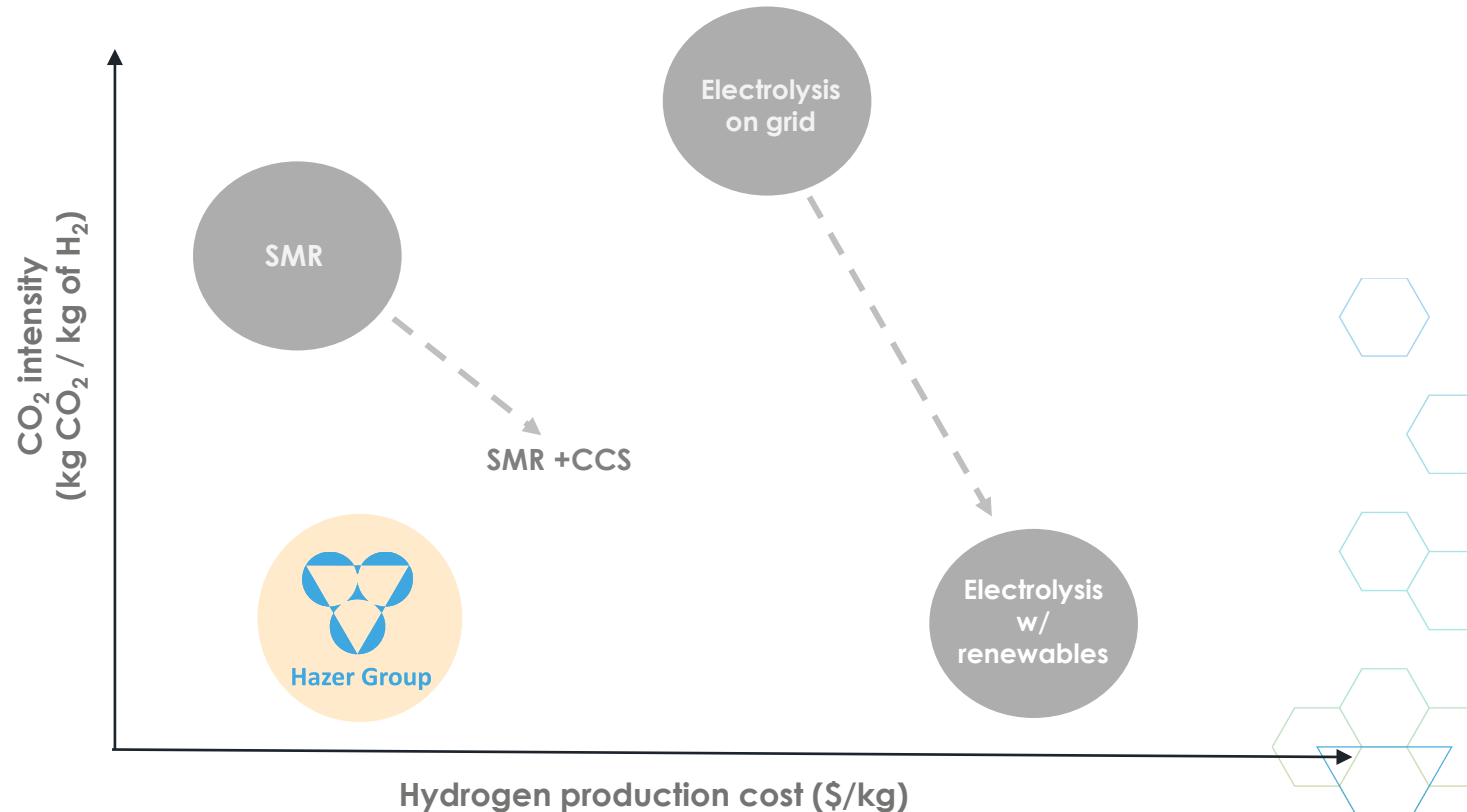
- Most widely used process for the generation of hydrogen (~95%)
- High CO₂ emissions
- Requires CCS* to address emissions; expensive and difficult



Electrolysis

Energy intensive process

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



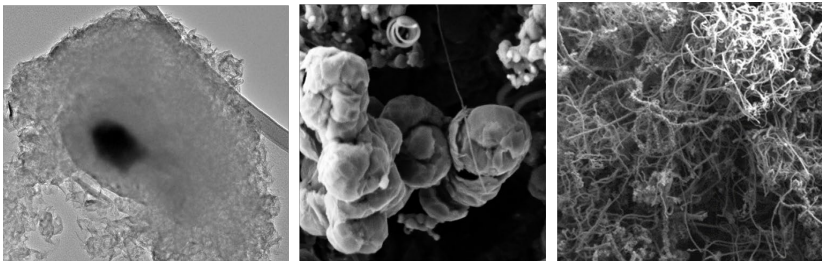
*CCS = Carbon Capture & Storage. Requires geological formations for CO₂ sequestration



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



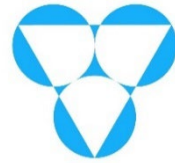
Mitsui MOU Hydrogen & Decarbonisation Strategy

- 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.



“Plug-in” technology into existing industrial infrastructure

End-use deployment and application of the Hazer Technology eliminates H₂ transport risk and reduces cost



Decarbonise

Hard to abate industry



- H₂ will be used increasingly in steelmaking process as reductant and heat input
- Hazer graphitic carbon potential to displace numerous solid carbon needs in steel industry

Feedstock

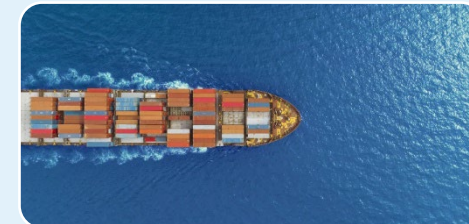
Chemical Industry



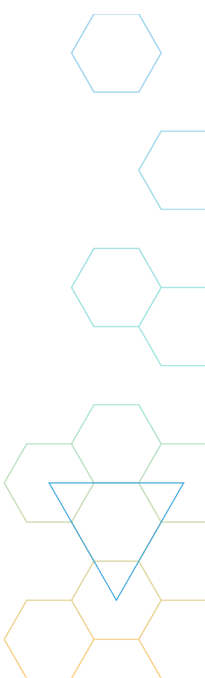
- Hazer H₂ output used as feedstock for refining / petrochemicals & fertilizer
- Reduced carbon footprint for process

Energy

Mobility / Power



- Global initiatives to use H₂ as a mobility fuel (via fuel cells) and clean power generation





Successful technology development & up-scaling

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

(<1g* batch)



(<100g* batch)



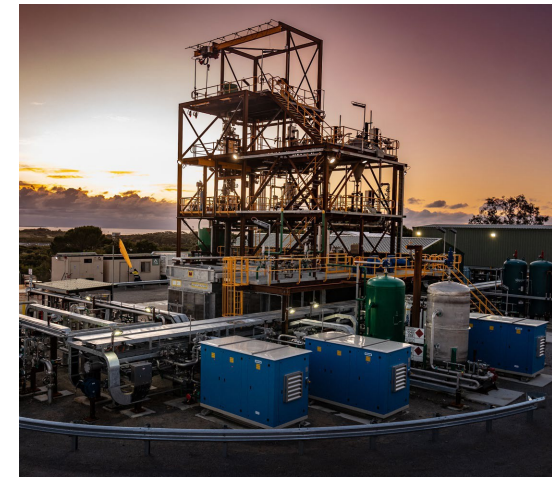
(~1Kg* batch)



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



(< 60kg/hr* continuous**)



25x
Scale-up
Plant



2007–2013

2016–present

2017

2017–2021

2022-2023

2025

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 *** Burrard Hazer Hydrogen Project; Refer to slide 14

Commercial Demonstration Plant: Confirming Scalability

The first fully-integrated demonstration plant of the Hazer Process



CDP Site, Perth, Australia

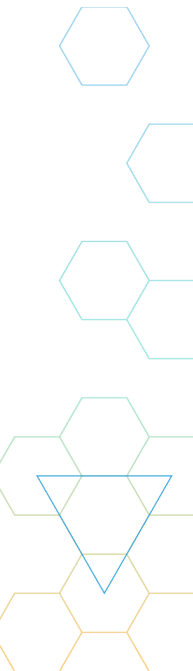
Project Summary

- 100 tpa H₂ and ~380 tpa graphitic carbon
- Carbon negative process with biogas feedstock
- Construction & phase-1 commissioning completed in June 2022
- Ready for startup on track for 2023
- Fully funded with ~\$9.4 million grant funding awarded by Australian Renewable Energy Agency (ARENA)



Australian Government
Australian Renewable
Energy Agency

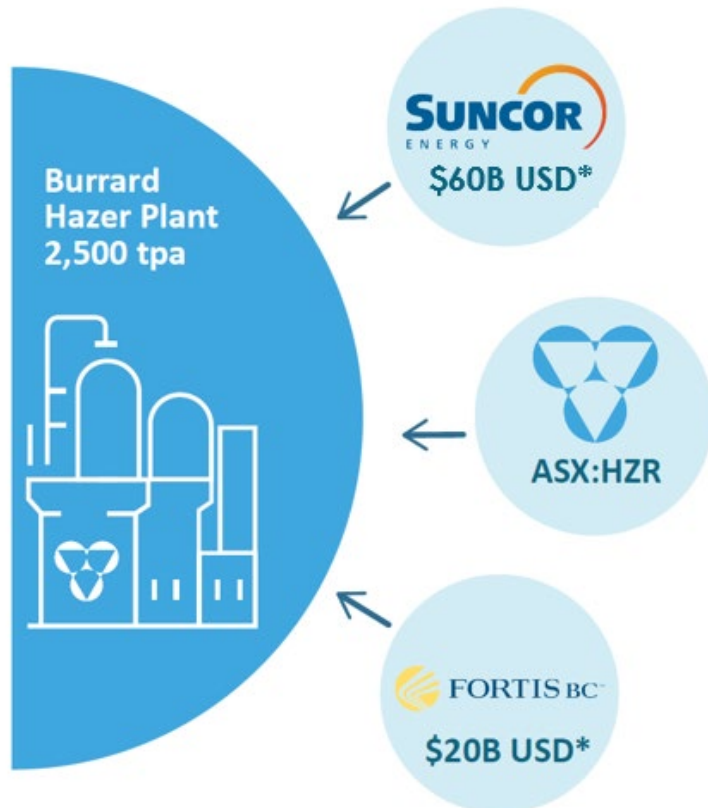
ARENA





Collaborating with leading energy companies in Canada

Partnership with Suncor and Fortis to develop a 2,500tpa hydrogen facility in Burrard, Canada



- Concurrently scaling up technology 25x from CDP
- MOU signed in Feb 2022 with Suncor and FortisBC
 - 2,500tpa near-commercial scale plant
 - Decarbonising pipeline network by blending with natural gas
- Target FID 2023
 - With first hydrogen expected 2025
- Secured C\$8m in grant funding from the province of British Columbia. Meets funding requirements to FID

On 4th Nov 2022, the Canadian Government announced federal tax credits for clean technology & low-emitting hydrogen projects

* Market capitalisation is approximate as of 10 February 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

- MOU with Mitsui to investigate potential market for Hazer graphite
- Chiyoda collaboration for Japan market access & engineering services

POLICY SUPPORT

North America

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

Europe

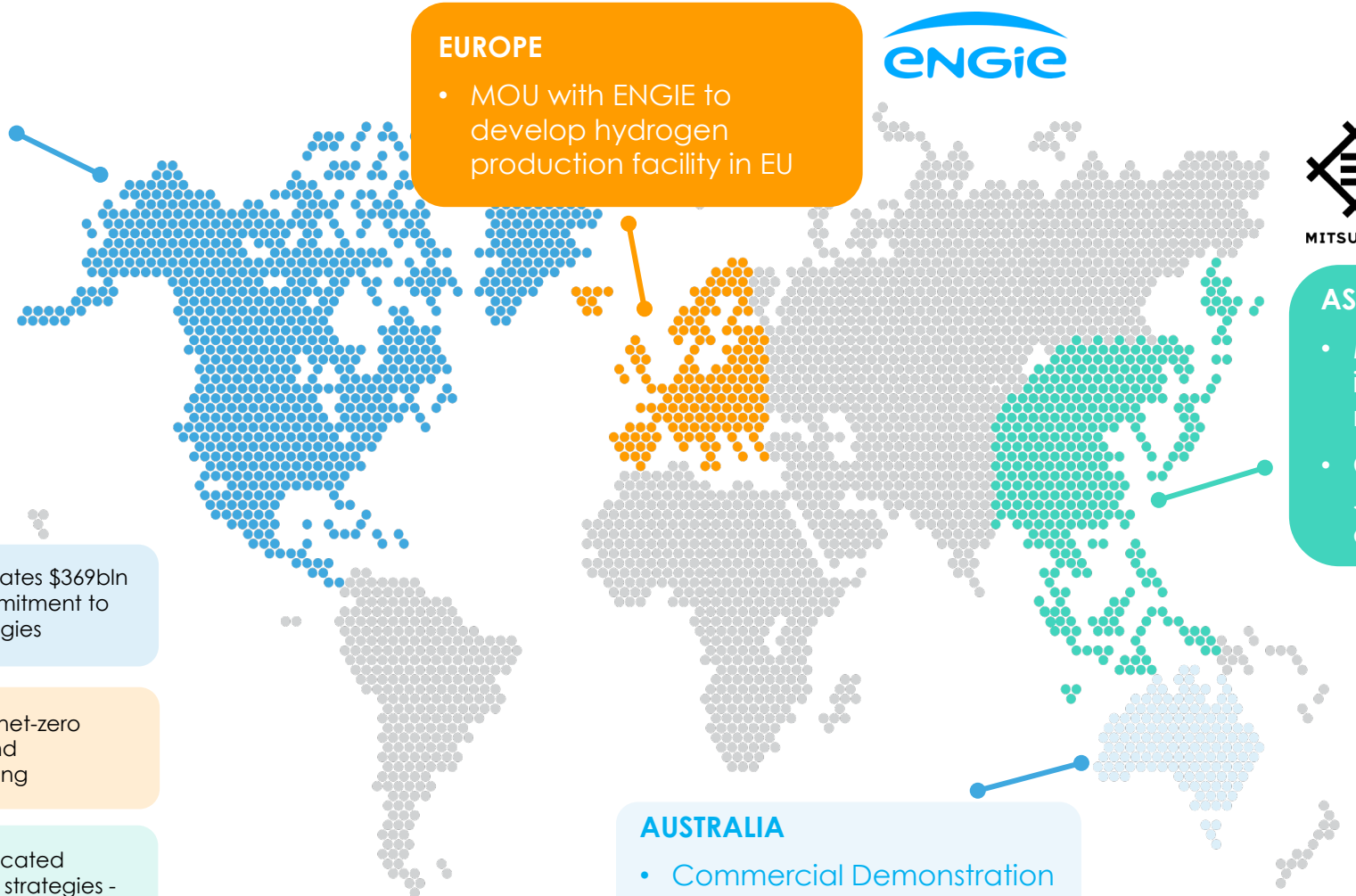
Green Deal & GDIP supports net-zero technology development and accelerating access to funding

Asia-Pacific

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

AUSTRALIA

- Commercial Demonstration Plant (CDP)

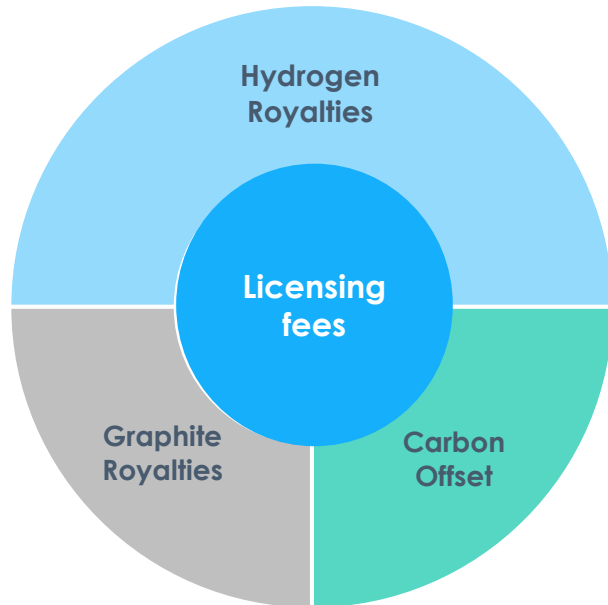




“Capex-lite” business model to enable early free-cashflow

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

“Capex-lite” Business Model



- Competitive advantage as operating expenses shared by two product streams (H₂ & graphitic carbon)
- Revenue model to include a combination of license fees and royalties to deploy Hazer technology:-
 - Fixed annual license fees commensurate with plant size
 - Royalties as a percentage of revenue from the sale of H₂ and graphitic carbon
- “Capex-lite” approach leverages Hazer’s strength as technology provider and licensee:
 - Any capex exposure risk-assessed against strategic benefit and funding/carry options
 - Partnership model targets tier-1 project proponents, e.g. Suncor, with expertise in project management & EPC





Key Activities

	CY2023			CY2024
	H1		H2	Q1
Commercial Demonstration Plant (100 tpa)			Start-up and final commissioning	
Suncor & Fortis 2,500 tpa Burrard Plant	FEED Studies in Canada and targeted FID			
Mitsui MOU	Developing market for Hazer Graphite			
New Potential Projects	Negotiate Commercial Agreements			
Corporate Updates	ARENA Grants ✓	R&D Rebates	Site Visit	ARENA Grants





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