

### HAZER JOINS FORCES WITH CHUBU ELECTRIC AND CHIYODA FOR FIRST HAZER FACILITY IN JAPAN

- Preparation of a Project Development Plan ("PDP") for a commercial scale Hazer facility in Japan
- Ultimate targeted hydrogen production capacity of up to 100,000 tpa, with an initial capacity between 2,500 and 10,000 tpa
- Chubu Electric plans to use produced hydrogen as a fuel for power generation and for industrial applications
- PDP to be completed during 1H 2024, with a targeted initial start-up expected in the late 2020s
- Investor webinar taking place Wednesday 12<sup>th</sup> April 2023 with details below

**PERTH, AUSTRALIA; 11 April 2023**: Hazer Group Ltd ("Hazer" or the "Company", ASX: HZR) is pleased to announce it has signed a non-binding Memorandum of Understanding ("MOU") with Chubu Electric Power Company Inc. ("Chubu Electric", Nagoya, Japan), a global energy supply company, and Chiyoda Corporation ("Chiyoda", Yokohama, Japan), a global engineering company, to jointly prepare a Project Development Plan ("PDP") for a Hazer production facility in the Chubu region in Japan. This MOU is an outcome of the longstanding strategic collaboration between Chiyoda Corporation and Hazer (refer announcement of 31 January 2020).

Under the MOU, Hazer, Chubu Electric and Chiyoda have agreed to work collaboratively to prepare the Project Development Plan for a clean hydrogen and graphitic carbon production hub ("the Project") in the Chubu region of Japan, based on Hazer's proprietary technology.

Chubu Electric Power plans to use the produced hydrogen as a fuel for power generation, and other hard to abate industries, as well as mobility, in the Nagoya area.

The Project's planned production facility will have a target ultimate hydrogen production capacity of between 50,000 and 100,000 tonne per annum ("tpa"), planned to be achieved in stages. The initial hydrogen production capacity is currently anticipated to be between 2,500 and 10,000 tonne per annum.

The parties have agreed to complete the PDP during 1H 2024, and will concurrently develop the relevant definitive partnership and commercial agreements to advance the Project with commitment, targeting the initial start-up of the facility in the late 2020s.

Hazer, Chubu Electric and Chiyoda will form a Project Group for the development and implementation of the Project. The Project Group is considering graphite offtake opportunities. The initial Project collaboration is presented in diagram 1 below.

Kouji Sada, General Manager of Electric Power Research and Development Center of Chubu Electric, said: "Chubu Electric Power Group is firmly committed to decarbonisation of its operations and that of our customers. We believe the Hazer technology offers an attractive solution to locally produce low carbon hydrogen, using our existing supply chains and infrastructure."

Norimasa Matsuoka, Senior Vice President, Frontier Business Division of Chiyoda, said: "Chiyoda has been closely collaborating with Hazer for some time. We believe Hazer's innovative technology has strong alignment with the Japanese market and we are delighted to be working together with Chubu Electric and Hazer, bringing our engineering and project expertise to bear on this exciting project for early social implementation towards a carbon free society."

Glenn Corrie, Managing Director of Hazer Group Limited, said: "Hazer has always viewed Japan as an important and strategic market for the deployment of our unique technology. By integrating our technology into the existing energy value chain, we can contribute to the decarbonisation of hard-to-abate sectors such as power generation, heavy industry and mobility. We feel privileged to be working with world-class and strategically aligned partners in Chubu Electric and Chiyoda, both of which have been leaders in their fields and have a demonstrated vision to decarbonise society. This partnership complements our already established partnership with Mitsui relating to our graphite offtake and is further validation of the Hazer technology business plan."

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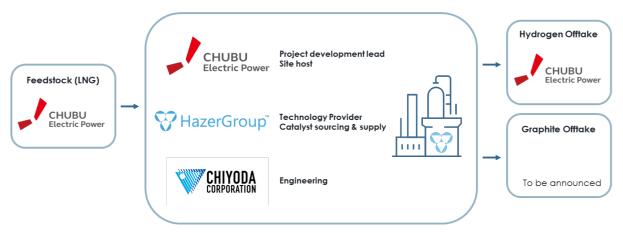


The Japanese Government on 4 April 2023 announced its plans to increase its hydrogen supply target to 12 million tonne per annum by 2040, or a sixfold increase over the current target of 2 million tonne per annum. This is in addition to the already existing use of hydrogen in industrial sectors. In addition to Japan, Hazer views other geographies in the Asia Pacific region, such as Singapore and Korea, as key strategic markets for the deployment of its technology.

The MOU has an initial term until year-end 2023 to enable the negotiation of Definitive Agreements and can be extended by mutual agreement. Each party has agreed to cover their own costs incurred and the arrangement does not restrict either party from discussing, entering into or implementing a similar transaction or similar relationship with third parties.

Diagram 1: Illustration of the collaboration

Hazer – Chubu hydrogen supply hub schematic



### **Investor Webinar**

Hazer's CEO and Managing Director Glenn Corrie and Chief Commercial Officer Luc Kox, will be hosting an investor webinar and Q&A session on Wednesday 12th April 2023 at 9am AWST (Perth) / 11am AEST (Sydney/Melbourne).

Please register for the webinar at:

https://us02web.zoom.us/webinar/register/WN KtmkXXdGSm2JhQUTFmqq2Q

Dial in details and instructions on how to submit questions will be sent following registration.

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

### [ENDS]

### ABOUT CHUBU ELECTRIC POWER CO. INC.

Chubu Electric Power Co. Inc., is a global energy supply company committed to decarbonizing entire social system by expanding use of renewable energy, utilizing hydrogen and ammonia co-firing in thermal power generation, maximizing use of nuclear power, and providing electrification and energysaving solutions to demand side.

Chubu Electric Power Co. Inc. provides energy mainly for the Chubu region in central Japan. Its headquarters is located it in Nagoya, Japan. For more information on Chubu Electric Power Co. Inc.'s business, please visit: <a href="https://www.chuden.co.jp/english/">https://www.chuden.co.jp/english/</a>

### **ABOUT CHIYODA CORPORATION**

Chiyoda Corporation is a global engineering company engaged in numerous engineering, procurement and construction and other type of projects around the world for its business field covering energy such as oil and gas industry and chemicals, environment, energy conservation, industrial facilities and life science.



### **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. A schematic of the Hazer process is presented in diagram 2.

Diagram 2: Schematic of Hazer process



### **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 "forwardlooking 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.

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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.

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# Disclaimer

### Important information

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

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

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**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.





# 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

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

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

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



# Executing scale-up strategy in hard to abate sectors

2023 Chiyoda & Chubu partnership in Japan

### **Our Vision**

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

### **COMMERCIALISE**

CDP Online 2023

### **SCALE UP**

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

industries

enablers

25x Canadian Scale-up

Japan 2.5-10 ktpa\*

### **MONETISE & GROW**

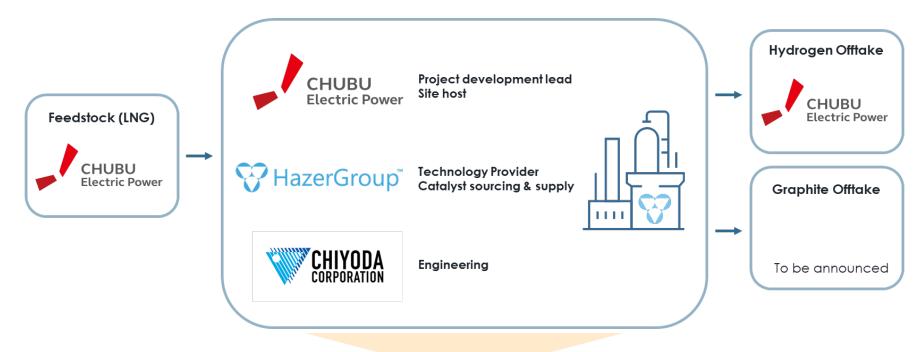
**New Business Projects** 

**Japan Production Hub** 



# Hazer-Chubu hydrogen supply hub

Preparation of Project Development Plan (commercial framework) for first commercial-scale Hazer facility in Japan



- Initial H<sub>2</sub> plant capacity: 2,500 10,000 tpa
- Targeted H<sub>2</sub> plant capacity: 50,000 100,000 tpa
- PDP to be completed during 2024
- Initial start-up expected in the late 2020s



# World class partners and a commitment to decarbonisation

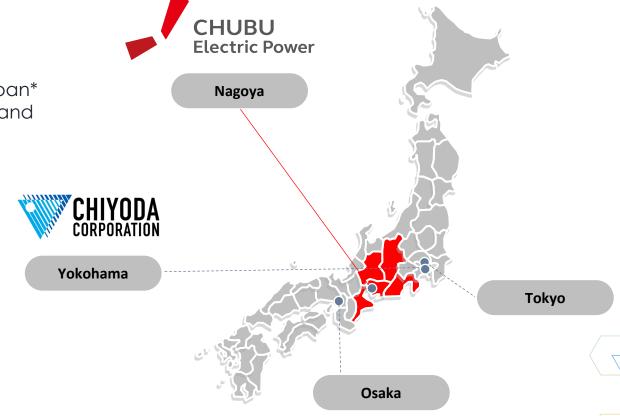
Leaders in their industries with aligned vision and strategy

## Chubu Electric Power Company Inc.

- Population serviced: 23 million
- Imports ~12-15MTPA of LNG one of the largest in Japan\*
- 32GW total generation capacity of thermal, nuclear and renewable power

### **Chiyoda Corporation**

- Global engineering company
- Long-standing strategic collaboration with Hazer

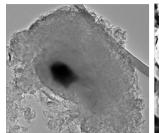


\*Through Chubu Electric's participation in JERA.

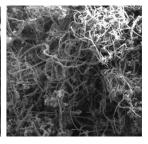
# Unlocking the value of Hazer graphitic carbon

### 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.





# Established presence in target markets

### **NORTH AMERICA**

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





### **POLICY SUPPORT**

North
America

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

<sup>2</sup> 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

### **EUROPE**

 MOU with ENGIE to develop hydrogen production facility in EU

# engie





### **ASIA**

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



### **AUSTRALIA**

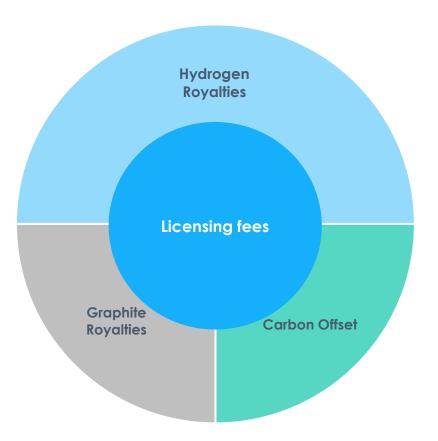
 Commercial Demonstration Plant (CDP)

\* PDP refers to Project Development Plan

# Dersonal

# "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

- o OPEX shared by two product streams (H2 & 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

Dersonal



# **Key Activities**

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

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