

**ASX ANNOUNCEMENT** 

1 February 2024

# INVESTOR PRESENTATION-RESOURCES RISING STARS SUMMER SERIES

Greenvale Energy Ltd (ASX: **GRV**) ('**GRV**', '**Greenvale**' or '**the Company**') is pleased to provide a corporate presentation that will be delivered by its Director and Chief Executive Officer, Mark Turner, at the Resources Rising Stars Investor conference, to be held in Brisbane today.

Investors can register to attend the conference either in-person or virtually as follows:

In-Person Event – Sofitel Brisbane Central, Turbot Street

https://www.resourcesrisingstars.com.au/events

**Event Livestream – Virtual** 

https://www.bigmarker.com/series/rrs-summer-series-brisbane-l/series summit

#### **Authorised for Release**

This announcement has been approved for release by Kurt Laney, Joint Company Secretary.

#### Contact

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Nicholas@readcorporate.com.au





### Important Information

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#### FORWARD-LOOKING STATEMENTS

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The forward-looking statements in this presentation are based on current expectations, estimates, forecasts and projections about Greenvale Energy and the industry in which they operate. However, please note, they do relate to future matters and thus are subject to various inherent risks and uncertainties. Actual events or results may differ materially from the events or results expressed or implied by any forward-looking statements.

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#### COMPETENT PERSON STATEMENT

The information in this presentation that relates to the Alpha Mineral Resource Estimate is based on information compiled by Mr. Carl D'Silva, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (Member number 333432). Mr. D'Silva is a full-time employee of SRK Consulting (Australasia) Pty Ltd, a group engaged by the Company in a consulting capacity.

Mr D'Silva has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr D'Silva consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the Mineral Resource Estimate dated 9 March 2022 as announced to the ASX on that date and which is available at www.greenvaleenergy.com.au. The Company confirms that in relation to the Alpha Torbanite Project Mineral Resource Estimate, all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 9 March 2022.

The information in this presentation that relates to liquefaction testing is based on information compiled by David Cavanagh, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy AusIMM Member number 112318. David Cavanagh is a full-time employee of Core Resources.

David Cavanagh has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. David Cavanagh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This presentation has been authorised for release by the Board of Greenvale Energy Limited.



### **GRV: Corporate Summary**

#### **CAPITAL STRUCTURE**

440 M Shares on issue

\$39.17M

Market Capitalisation (25 Jan 2024)

\$0.09

Share Price (25 Jan 2024)

44%

Top 20 Shareholders 38M

Performance Rights on issue

\$3.24M

Cash at Bank (31 Dec 2023)

\$1.97M

Liquid Investments (31 Dec 2023)<sup>1</sup>

16%

**Directors Shareholding** 

(a) 23.00 million shares which are to be released from escrow on 28 November 2024.

#### **BOARD & MANAGEMENT**



Neil Biddle Non-Executive Chairman

Geologist with +35 years' experience in exploration and mining. Founding Director of Pilbara Minerals, where he oversaw the acquisition, exploration and development of the world-class Pilgangoora Lithium Project.



Mark Turner
Executive Director

Engineer with +25 years' experience in the energy sector and a proven track record of major project delivery in oil & gas, water, power, renewables, and nuclear projects.



Elias Khouri Non-Executive Director

Extensive experience in equity markets, with expertise in corporate finance, advisory, capital raisings, joint venture and farm-in negotiations.



Vince Fayad Co-Company Secretary

+35 years' experience in corporate finance, international M&A, accounting and other advisory related services, with strong public company experience.



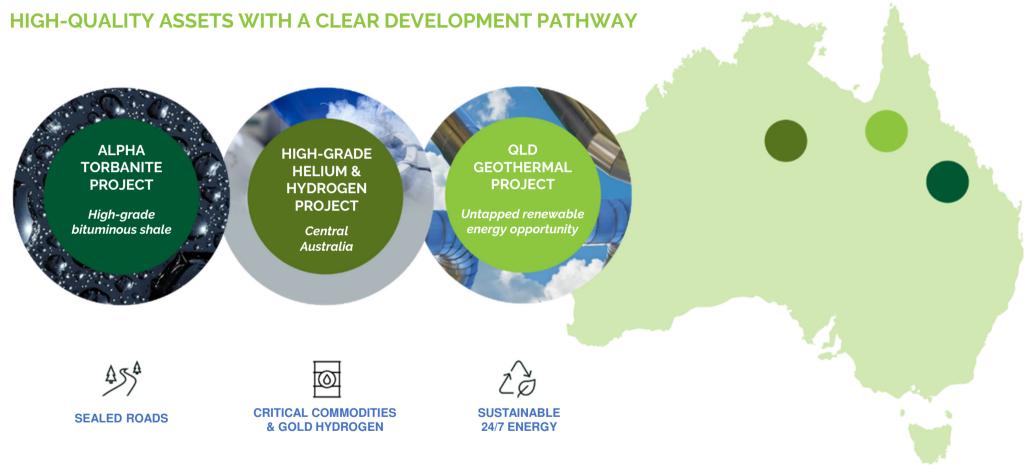
Kurt Laney
Chief Financial Officer & Co-Company Secretary

Experienced Chartered Accountant specialising in the provision of accounting, taxation, and corporate secretarial services.

<sup>1.</sup> Liquid investments include GRV's shareholding in Astute Metals NL (ASX:ASE), with the following shares subject to escrow:



# **Greenvale Energy - Our Value Proposition**



Projects capable of delivering high-value products into strongly growing markets...

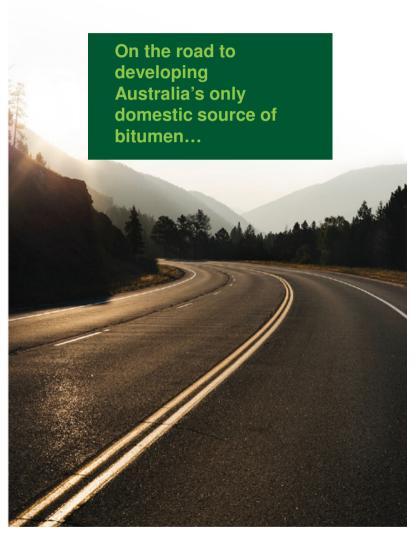


UNIQUE, HIGH-VALUE PROJECT GEARED TO AUSTRALIA'S BURGEONING INFRASTRUCTURE NEEDS

Rare, high-value torbanite deposit located in central Queensland, 500km west of Rockhampton

- One of only two known torbanite deposits in Australia
- Potential to become a key domestic source of bitumen (almost all of Australia's supply is imported)
- Development strategy based on the use of geothermal power offset to deliver carbon neutral "green" bitumen
- Opportunity to replace the current use of imported heavy crude oils in the Australian bitumen market



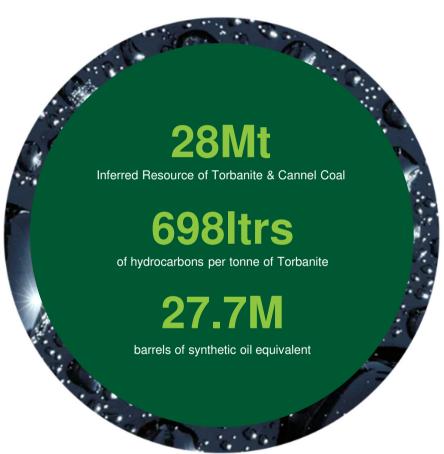




# Alpha: High-Grade, High-Value

#### ON THE PATHWAY TO DEVELOPMENT

- Updated Inferred Mineral Resource Estimate of 28Mt from the previous 18.6Mt of torbanite and cannelite.
- 27.7 million barrels of synthetic oil equivalent
- Ultra high-grade: 698 litres of hydrocarbons per tonne
- Liquefaction test program yielding exciting results:
  - 72% increase in conversion from solids to oil and gas (Test Programs 2 to 3, University of Jordan)
  - Test Program 4, Monash University completed 14 of 16 Test programs, bulk sample to Technix final stage and Licella Supercritical water testing work now completed.
  - Technix completed first stage analysis of two bulk samples, indications are product close to Class 600 bitumen (55.3% Asphaltenes)
- Updated Mineral Resource and liquefaction results to underpin Pre-Feasibility Study for project development



Refer to GRV ASX Announcement 13 Nov 2023



# **Alpha: Key Upcoming Catalysts**

#### POISED FOR A PERIOD OF INTENSIVE NEWS-FLOW

- Test Program 4 Liquefaction Results to establish a definitive processing pathway
- Certified product from Technix
- Customer engagement
- Pre-Feasibility Study

### **High-quality partners:**

**Technical Consultants** 



Carrier Oil and Supercritical Water Testing Program



**Supercritical Water Testing Program** 



**Bituminous Product Advisor** 







### An Exciting, High-Value Growth Market

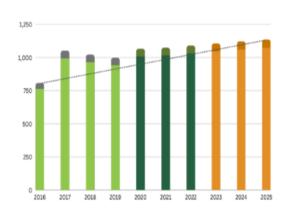
### BITUMEN IMPORTATION FEEDS CRITICAL INFRASTRUCTURE, WITH A HEAVY RELIANCE ON CHINA

### Australian Bitumen Imports by Country of Origin



- China (ex. SARs and Taiwan) 21.4%
- Korea, Republic of (South) 19.8%
- Singapore 27.4%
- Thailand 29.8%
- Other 1.6%

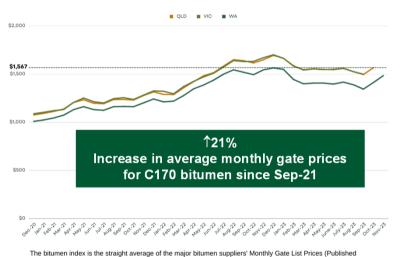
### Australian Bitumen Demand by Volume ('000t)



- Historical Gov't Funded Roads
- Historical Total
- Estimate Gov't Funded Roads
- Estimate Total
- Outlook Gov't Funded Roads
- Outlook Total

Source: Department of Climate Change, Energy, the Environment and Water, Australian Petroleum Statistics SEP 2022 Source: Argus Asphalt Annual 2021 – Bitumen Demand & Government Funded Roads Australia

### C170 Bitumen Price Index (A\$/tn)



List Selling Price) for C170 grade bitumen. Source: vicroads.vic.gov.au; mainroads.wa.gov.au; tmr.qld.gov.au

\$1,589/tonne QLD C170 closing price as at Jan-24

# **West Walker Project**

HIGH-GRADE HELIUM AND HYDROGEN OPPORTUNITY IN CENTRAL AUSTRALIA



Farm-in agreement with Mosman
Oil & Gas to acquire a 75% interest
in EP145 in the Amadeus Basin

- Amadeus Basin has some of the highest concentrations of helium globally, as well as confirmed hydrogen accumulations
- EP145 sits within recognised play fairways for helium and hydrogen and contains proven hydrocarbon discoveries
- Lies on-trend with the producing Merenie Oil & Gas Field
- Successful helium wells located along the margins of the Amadeus Basin at Mt Kitty-1 and Magee-1
- Existing pipeline infrastructure to Australian East Coast provides opportunity for early commercialisation





### West Walker Project

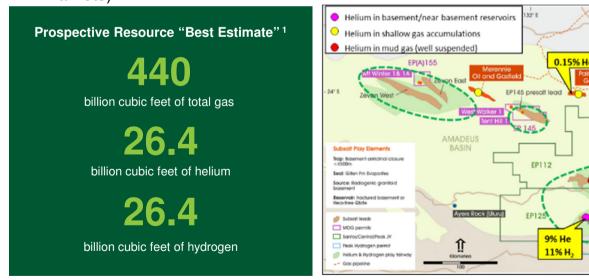
### PROVEN HELIUM AND HYDROGEN POTENTIAL, CLOSE TO EAST COAST GAS MARKETS

- Mosman Oil & Gas reported a Prospective Resource Estimate for EP 145 in October 2022:
  - "Best Estimate" of 440Bcf Total Gas, including 26.4Bcf helium and 26.4Bcf hydrogen
- Dataset is very limited, with few wells drilling below the palaeozoic play significant untested potential
- High-value products helium currently worth ~US\$450/mcf
- Opportunity for near-term cash-flow from natural gas production linked to existing infrastructure (North & East Coast markets)

Alice Springs

0.22% He

6% He



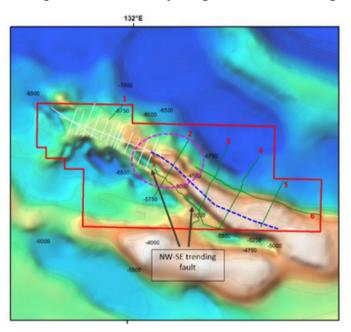
1 Applying the SPE PRMS standard

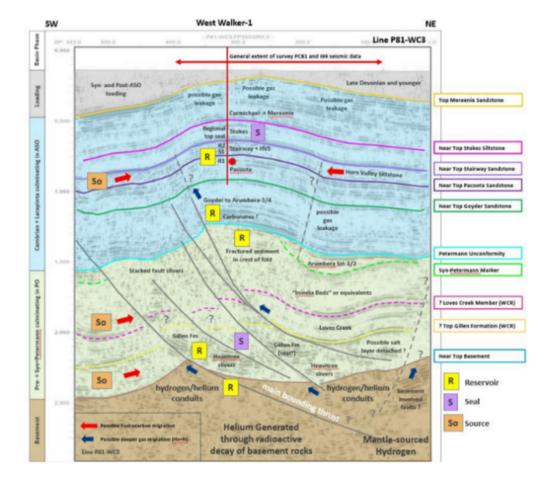


### West Walker Project

### **NEXT STEPS - RAPID PATHWAY TO UNLOCK VALUE**

- Acquisition of 2D seismic data
- Interpretation of seismic results to support planning for an initial drilling program
- Drilling "sweet-spot" identified in EP145 which could test all targets – helium, hydrogen and natural gas





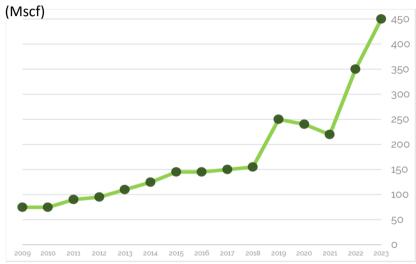


# Helium: Surging Price and Fast-Growing Market

#### A HIGH-VALUE COMMODITY WHICH IS EXPERIENCING EXPONENTIAL PRICE GROWTH

### Historical price of bulk liquid helium

US\$/thousand standard cubic feet



Source: Kornbluth Consulting LLC

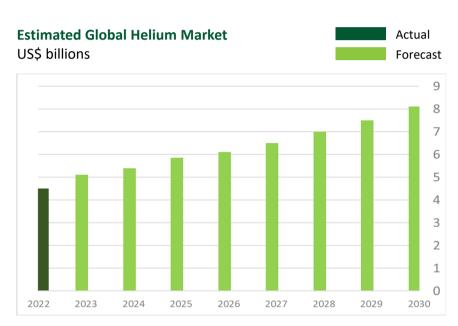
Fragile supply and surging demand is driving significant upward momentum in the helium price.





# Helium: Essential to A High-Technology World

#### THE HELIUM MARKET IS GROWING RAPIDLY AS TECHNOLOGY AND ARTIFICIAL INTELLIGENCE EVOLVES



Source: The Business Research Company, Helium Global Market Report 2023. Published January 2023

The global helium market is forecast to grow from US\$5 billion in 2023 to over US\$8 billion by 2030.



MRI
22% Market Share
Demand to
remain steady



Semiconductors 19% Market Share Demand to double in 5 years



Welding
12% Market Share
Demand to
remain steady



Aerospace 8% Market Share Demand to double in 10 years



Optical Fibre
3% Market Share
Demand to double
in 10 years



Cryogenics
3% Market Share
Demand to double
in 10 years



# Helium, Hydrogen, Natural Gas

#### HIGH-VALUE COMMODITIES WITH OUTSTANDING MARKET FUNDAMENTALS



#### Helium

- Lowest cooling temperature of any element invaluable for medical, manufacturing and scientific applications
- Annual demand expected to rise from 6.0Bcf to 8.5 -10 Bcf by 2030, fueled by rising demand in cryogenics and welding applications
- Periods of severe supply shortages since 2006, including rationing by suppliers
- Price for large quantities at the source increased by 11% p.a. from 2006-2022 to ~US\$450/mcf in late 2022¹



### **Natural Hydrogen (Gold Hydrogen)**

- Alternative, clean, carbon-free fuel
- Requires no additional energy input from either fossil fuels or renewables
- Natural Hydrogen is continuously created, constantly replenished
- GRV will be ideally positioned to take advantage of future hydrogen markets at its West Walker Project



### **Natural Gas**

- As Australia transforms to meet Net Zero emissions, gas will continue to complement renewable energy to provide reliable and dispatchable electricity
- Australian gas prices in downstream markets averaged around \$14.50/GJ for Q2 2023<sup>2</sup>

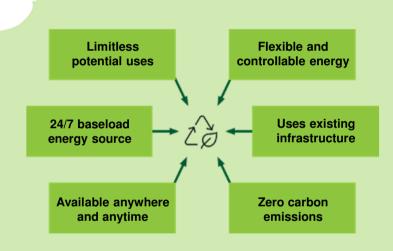
<sup>&</sup>lt;sup>1</sup> Kornbluth, 2023 <sup>2</sup> AER

# **Geothermal Opportunity**

#### UNTAPPED RENEWABLE ENERGY OPPORTUNITIES IN QUEENSLAND

# Major Government investment to deliver on renewable targets

- 2023-24 State Budget committed \$19B over four years to deliver more renewable energy to the Queensland SuperGrid
- Queensland Energy & Jobs Plan to unlock 100,000 new industrial jobs in hydrogen, renewables, manufacturing, and critical minerals



### **Technology**

### **Closed-Loop System**

Closed-loop geothermal well system, where fluid is circulated down the well through concentric tubes that act as a downhole heat exchanger. The fluid is fully contained and has zero interaction with below-ground formations or aquifers.

"It represents the most significant investment ever in Queensland's publicly owned electricity system and will help us power Queensland with 70% renewable energy by 2032 and 80% by 2035"

Queensland Premier, Annastacia Palaszczuk



### **Key Investment Takeaways**

### **MULTIPLE VALUE-CREATION PATHWAYS**

- ✓ A unique growth opportunity in rare, critical, high-value commodities
- ✓ Alpha Torbanite Project advancing towards commercialisation
- Ideally positioned to become Australia's only end-to-end domestic source of bitumen for burgeoning infrastructure demand
- Exciting new high-grade helium, natural gas and hydrogen growth opportunity secured in the Amadeus Basin, close to existing gas infrastructure
- Demand for helium increasing with supply decreasing price expected to continue rising and will do for the foreseeable future
- ✓ Poised to capitalize on future hydrogen market opportunities as Queensland aims to be a hydrogen hub
- Geothermal strategy advancing in Queensland
- Experienced team with exceptional track record of value-creation for shareholders

