#### **Pilot Energy Limited**

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### Announcement to ASX ASX: PGY

6 June 2023

## PILOT ENERGY LIMITED PRESENTS THE CLIFF HEAD CCS PROJECT TO JAPAN KOREA BUSINESS DELEGATION

Pilot Energy Limited (**Company** or **Pilot**) was invited by AUSTRADE to present the Cliff Head CCS Project to the Austrade Japan and Korea CCUS Business Delegation currently visiting Australia. A presentation about the Project and an associated video were delivered to the delegation in Melbourne late yesterday (5 June 2023). The presentation is attached to this announcement. A link to the accompanying video is here: https://www.pilotenergy.com.au/videos/Pilot MWCEP CliffHeadCCS 20230602.mp4

and can also be found on the Pilot website under the "Investor" tab (videos & webcasts).

#### ENDS

This announcement has been authorised for release to ASX by the Chairman, Brad Lingo and Managing Director, Tony Strasser.

#### Enquiries

Cate Friedlander, Company Secretary, email: cfriedlander@pilotenergy.com.au

**About Pilot**: Pilot is a junior oil and gas exploration and production company that is pursuing the diversification and transition to the development of carbon management projects, production of hydrogen and clean ammonia (blue, green and teal) for export to emerging APAC Clean Energy markets and integrated renewable energy. Pilot intends to leverage its existing oil and gas operations and infrastructure to cornerstone these developments. Pilot is proposing to develop Australia's first offshore CCS Project through the conversion of the Cliff Head Oil field and associated infrastructure from oil production to CCS as part of the Mid West Clean Energy Project.

Pilot holds a 21.25% interest in the Cliff Head Oil field and Cliff Head Infrastructure, and a 100% working interest in WA-481-P and EP416/480 exploration permits, located offshore and onshore Western Australia.



## **Mid West Clean Energy Project**

Austrade Japan-Korea CCUS Business Delegation Cliff Head CCS overview June 2023

PILOT ENERGY LIMITED ASX:PGY



### **Compliance Statements**



#### Disclaimer

This investor presentation has been prepared by Pilot Energy Limited ABN 86 115 229 984 (Pilot or the Company). Any material used in this presentation is only an overview and summary of certain data selected by the management of Pilot. The presentation does not purport to contain all the information that a prospective investor may require in evaluating a possible investment in Pilot nor does it contain all the information which would be required in a disclosure document prepared in accordance with the requirements of the Corporations Act and should not be used in isolation as a basis to invest in Pilot. Pilot Recipients of this presentation must make their own independent investigations, consideration and evaluation of Pilot. Pilot recommends that potential investors consult their professional advisor/s as an investment in Pilot is considered to be speculative in nature.

This presentation contains "forward looking statements" concerning the financial condition, results of operations and business of Pilot. All statements other than statements of fact or aspirational statements, are or may be deemed to be "forward looking statements". Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", "outlook", and "guidance", or other similar words & may include, without limitation, statements regarding plans, strategies and objectives of management, future or anticipated production or construction commencement dates and expected costs, resources or reserves, exploration results or production outputs.

#### **Assumptions and Forward Looking Statements**

Forward looking statements are statements of future expectations that are based on management's current expectations and assumptions, known and unknown risks and uncertainties that could cause the actual results, performance or events to differ materially from those expressed or implied in these statements. These risks include, but are not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, commercialisation reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

Statements in this presentation are made only as of the date of this presentation unless otherwise stated & the information in this presentation remains subject to change without notice. Reliance should not be placed on information or opinions contained in this presentation. To the maximum extent permitted by law, Pilot disclaims any responsibility to inform any recipient of this presentation on any matter that subsequently comes to its notice which may affect any of the information contained in this document and presentation and undertakes no obligation to provide any additional or updated information whether as a result of new information, future events or results or otherwise.

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#### **Competent Persons Statement**

This announcement contains information on conventional petroleum and  $CO_2$  Storage resources which is based on and fairly represents information and supporting documentation reviewed by Dr Xingjin Wang, a Petroleum Engineer with over 30 years' experience and a Master in Petroleum Engineering from the University of New South Wales and a PhD in applied Geology from the University of New South Wales. Dr Wang is an active member of the SPE and PESA and is qualified in accordance with ASX listing rule 5.1. He is a former Director of Pilot Energy Ltd and has consented to the inclusion of this information in the form and context to which it appears.

#### Authorisation

This presentation has been authorized by the Chairman and Managing Director on behalf of the Board of Directors of Pilot Energy Limited

#### **Mid West Renewable Energy Reporting Conditions**

Pilot has agreed to certain conditions with the ASX in respect its renewable energy activities in relation to nature of activities and expenditure limits. Proceeding beyond the conditions will constitute a change in the nature and scale of the Company's activities in terms of Listing Rule 11.1 and as such the Company will be required to comply with all of the requirements of Chapters 1 and 2 of the Listing Rules before it proceeds beyond the agreed limits.

### **Key messages**



### The Mid West Clean Energy Project is the development of an integrated CCS to Clean Ammonia export project

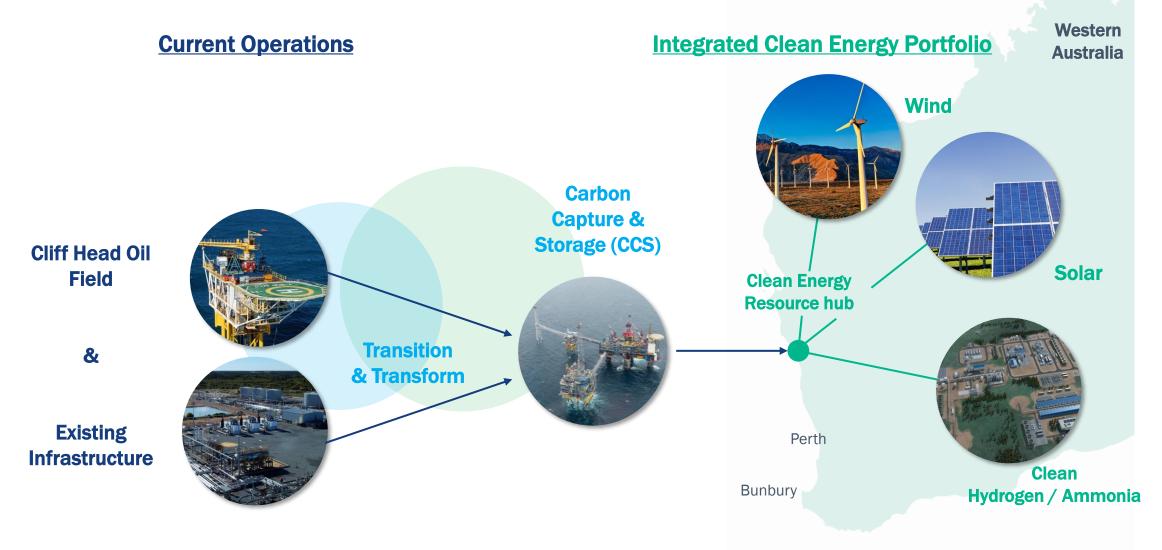
- Pilot is a producing oil and gas company transitioning into the supply of clean, low cost energy and a CCS service
- The Mid West Clean Energy Project (MWCEP) is Pilot's *flagship clean energy transition* project
- Pilot's existing operations are ideal for transitioning to low cost CCS and Clean Ammonia production
- CCS is the *key enabler* of low cost Clean Ammonia production
- Aiming to provide *permanent injection* of over a 1 million tonnes of CO<sub>2</sub> annually through 2050
- Targeting production of 1.2 million tpa of low-cost Clean Ammonia for export by 2027
- Reforms to the Safeguard Mechanism significantly increases the requirement for gas producers to reduce carbon emissions
- Carbon abatement through CCS is essential to meet newly legislated Safeguard Mechanism reforms

## Pilot Energy Corporate Overview

### **Vision**

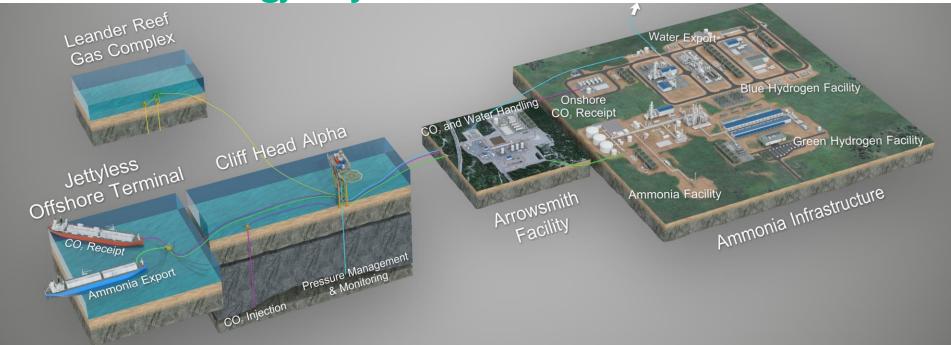


Transform existing assets and infrastructure to deliver an integrated cost competitive clean energy solution



### **Mid West Clean Energy Project**





### A Clean Ammonia export project with full carbon capture through integrated CCS

#### Carbon Capture & Storage Timing: ~2026

- Conversion of Cliff Head Offshore oil field to CCS
- Permanent CO<sub>2</sub> storage in depleted offshore oil field
- Offshore facilities to include direct offshore LCO<sub>2</sub> receipt capability
- Over 1 million tpa CO<sub>2</sub> injection from 2026
- Targeting continuous CO<sub>2</sub> injection through to 2050

#### Clean Ammonia Production Timing: 2027

- Targeting Clean Ammonia production of over 1.2 million tpa
- Clean Ammonia produced from combined Blue & Green Hydrogen Plant
- Blue H2 with full carbon capture through integrated Cliff Head CCS
- Green H2 from self-sourced industrial water supply + low-cost, behind-the-meter renewables
- Estimated levelized cost of ammonia (LCOA) of A\$400/tonne

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## **Proven & Experienced Board**





Brad Lingo Executive Chairman

- 30+ years international senior executive experience
- Upstream/midstream energy, energy infrastructure, finance
- Proven track record of creating & growing shareholder value





Tony Strasser Managing Director

RovalEnergy

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Anzon Australia

LIMITED

Extensive oil & gas experience including project and financial management, corporate finance and M&A 25+ years

Proven record in oil & gas with shareholder backing through multiple ventures

Bridgeport

Coopers

&Lybrand

A New Hope Group



Daniel Chen Non Executive Director

Denison Gas

nternational Container Ter

17+ years of international business, project management and leadership experience in large scale transport and logistics

Corporate advisor to private Australian oil & gas companies since 2018

MAERSK



Bruce Gordon Non Executive Director

Corporate Finance and Corporate Audit Specialist in the Natural Resources Sector

25+ years acting for, and advising, ASX and International oil and gas companies.

Extensive public company accounting, financial reporting and corporate governance knowledge







## **Management Team**





**Cate Friedlander** 

#### **Company Secretary & General Counsel**

Experienced corporate / commercial lawyer in upstream & midstream energy - ASX and international.

Chartered Governance Professional.

Member of Governance Institute of Australia.



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Nick Watson Head of Renewables & Commercial

RAK PETROLEUM

Over 20 years energy industry experience

Corporate/strategic development and operational experience across hydrogen, energy and oil & gas

svdnevgas



Jonas Jacobsen Development Director - MWCEP

20 years global experience as technical leader specialising in emerging technologies within clean energy generation, transmission and infrastructure sectors.

**Star**oftheSout

### 🕈 MTHøjgaard

BWSC



Mike Lonergan Head of Upstream

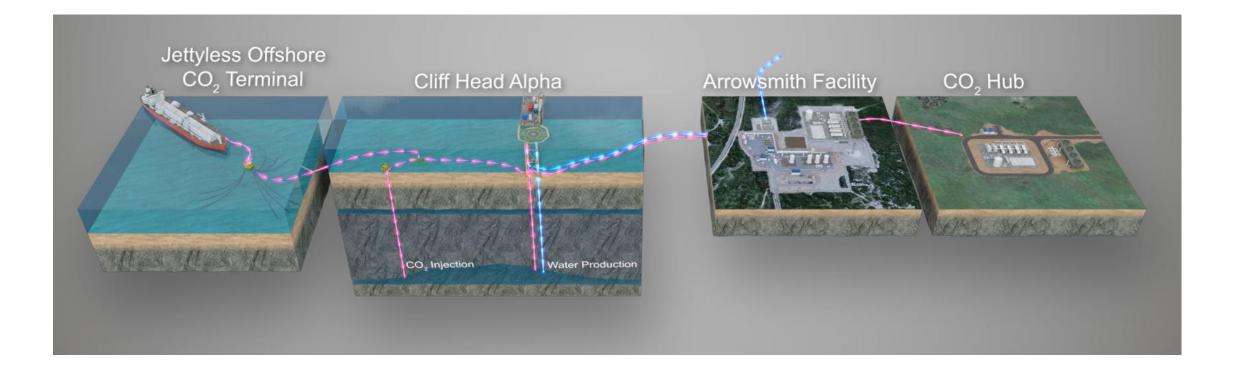
Michael is a petroleum geophysicist with 35 years of domestic and international oil and gas experience across a wide range of E and P assets. He has held senior technical and project management roles during his career, having worked for Delhi Petroleum, Oil Company of Australia, Origin Energy, Rohol-Aufsuchungs Aktiengesellschaft, Mosaic Oil, AGL, Pangaea Resources and Denison Gas.



# MWCEP Cliff Head CO<sub>2</sub> Storage project

### **MWCEP – Cliff Head CO2 Storage project video**





## **Cliff Head CCS – Project Overview**



### Key enabler of low cost Clean Ammonia production

- Brownfield re-development utilizing existing Cliff Head Oil Field
  onshore/offshore facilities
- Clear Commonwealth regulatory pathway to CCS with initial application lodged with NOPTA
- Minimal risk and capex requirements through re-use of existing reservoir & facilities
- Project to include onshore and offshore CO<sub>2</sub> capture and injection facilities
- Up to ~1 million tpa of ready accessible, easy-to-capture CO<sub>2</sub> emissions sources
- Aiming to provide over 1 million tpa of permanent CO2 storage continuing through 2050
- Focused on delivering project levelized cost of storage (LCOS) of less than A20/tonne of CO $_2$
- Targeting first CO<sub>2</sub> injection 2026

### **Global CCS Facilities In Operation**

#### Cliff Head CCS is a Global Top 10 CO<sub>2</sub> Injection Capacity Project

Carbon Dioxide Capture Capacity in million metric tons per year, 2021

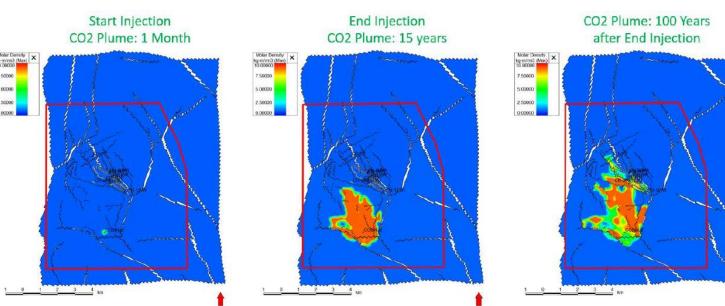


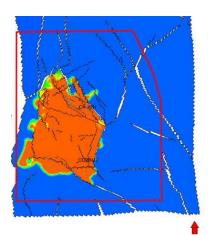
Recent Safeguard Mechanism reforms make CO2 abatement through CCS essential

## **Cliff Head Contingent CO<sub>2</sub> Storage resource**



- Completed a full technical assessment of the CO<sub>2</sub> storage potential across the WA-31L tenement area.
- Key technical models expanded to cover the entire WA-31L and adjacent area (expanding into Pilot's 100% held WA 481-P exploration licence)
- resulted in a 50% increase in 2C contingent resources to 9.7 million tonnes (prepared in accordance with the SPE SRMS).
- Upgraded resource involves a revised CCS development with a new CO<sub>2</sub> injection well to be drilled downdip and existing wells being retained for pressure maintenance and monitoring
- Further development planning modelling and optimisation work underway



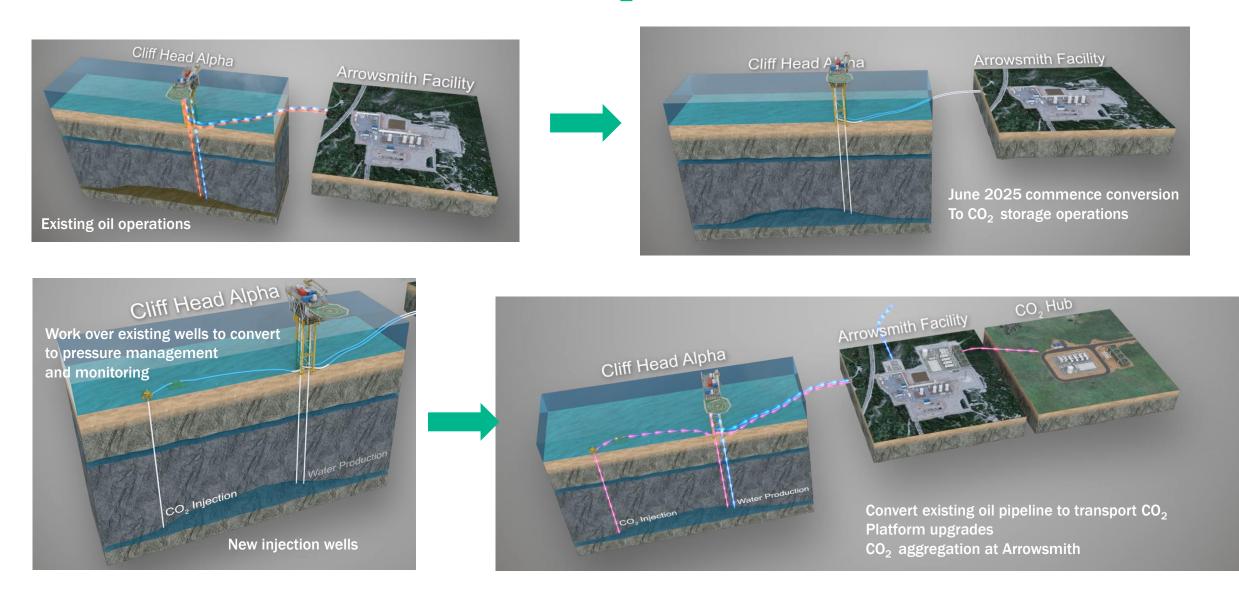


Technical assessment indicates **50 million tonnes** of capacity without the plume reaching the western tenement boundary

### 2C Contingent Resource: 9.7 million tonne $CO_2$ Storage: Plume stable after 100 years

## **Conversion from oil production to CO<sub>2</sub> storage operations**

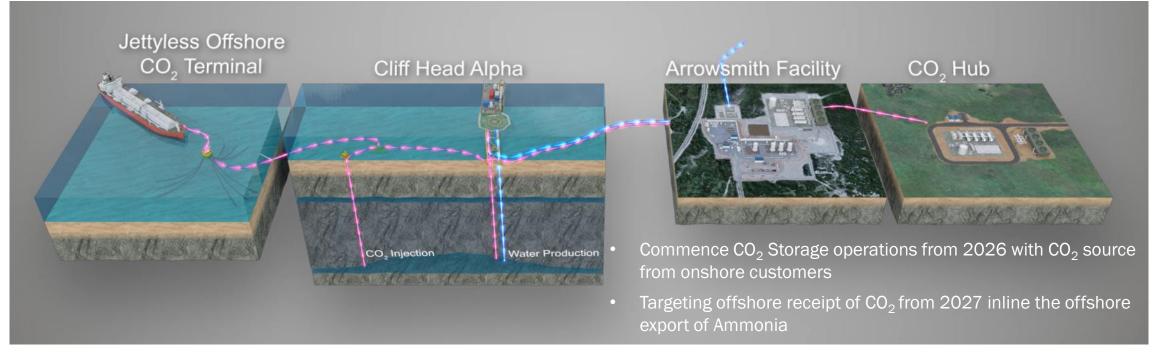




## **Conversion from oil production to CO<sub>2</sub> storage operations**



### Project to receive CO<sub>2</sub> via an onshore and offshore terminal



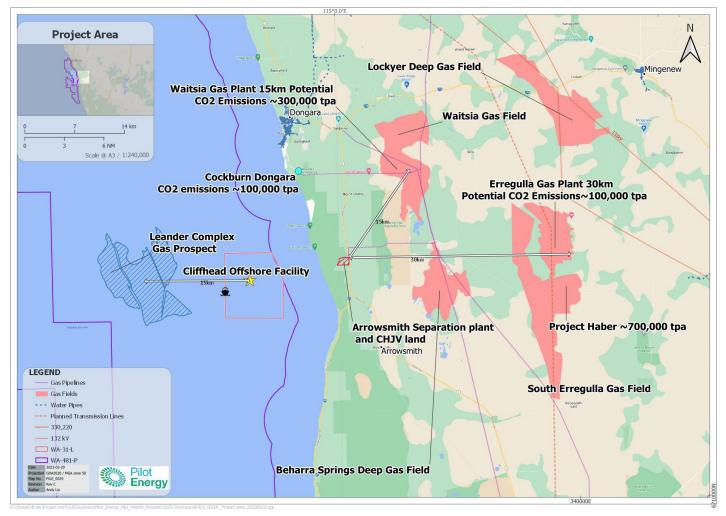
Project status

- Regulatory approval underway with Declaration of Storage Formation application submitted December 2022
- Established internal project team with Genesis (Technip Energies) engaged as owners engineer. Currently preparing for FEED entry
- Remaining regulatory approvals (outside injection licence) to commence from July 2023
- Customer and project partner discussions ongoing
- Up coming GHG assessment licence provide a opportunity to expand CO<sub>2</sub> storage outside of the Cliff head injection licence area
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## **Cliff Head CCS – A globally significant abatement project**



Significant WA domestic emissions opportunity set of up to 9 million tonnes per annum



Location of ~1 million tpa  $CO_2$  emissions within 30km of the Cliff Head CCS Project



#### 8 million tpa CO2 emissions within 350km shipping distance

# **Next Steps**

## **Key next steps**



### Over the next 12-18 months Pilot will be focused on the activities to deliver the Cliff Head CCS Project



### Corporate

- Active engagement with prospective project partners & customers
- Formulation of development funding plan

### **Project implementation**

- Permitting
- Site Acquisition
- Commercial Offtake



- Front End Engineering and Design (FEED) for CCS and Pre-FEED for Ammonia
- Begin prospective Engineering Procurement, Construction and Maintenance (EPCM) contractor engagement



Next 12 - 18months aimed at securing necessary regulatory approvals, securing commercial off-take arrangements and completing a FEED to enable final investment decision (FID) for the Cliff Head CCS Project.



### **Contact Details**

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Pilot Energy

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