

# marredo energy

## **Beyond West Erregulla**

Good Oil Conference, 7 September 2022 Dennis Donald, Managing Director & CEO

#### **Compliance Statements**



#### **Disclaimer**

- This presentation was authorised for release by the Managing Director of Warrego Energy Limited.
- This presentation does not constitute investment advice. Neither this
  presentation nor the information contained in it constitutes an offer,
  invitation, solicitation or recommendation in relation to the purchase or
  sale of shares in any jurisdiction.
- This presentation may include forward looking statements. Forward looking statements are only predictions and are subject to known and unknown risks, uncertainties and assumptions which are outside the control of Warrego. These risks, uncertainties and assumptions include commodity prices, currency fluctuations, economic and financial market conditions in various countries and regions, environmental risks and legislative, fiscal or regulatory developments, political risks, project delay or advancement, approvals and cost estimates. Actual values, results or events may be materially different to those expressed or implied in this presentation.
- Future appraisal and development projects are subject to approvals such as government approvals, joint venture approvals and Board approvals.
- Dates and schedules for planned EP469 activities are subject to change by the Operator.

#### **Resources Disclosure**

- The NSAI-certified Reserves, Contingent Resources and Prospective Resources for EP469 referred to in this presentation were released to the Australian Securities Exchange (ASX) by the Company on 28 July 2022.
- These estimates must therefore be read in conjunction with the full text of the ASX releases referred to.
- The Company is unaware of any new information that materially impacts
  the information in these releases and confirms that all the material
  assumptions and technical parameters underpinning the estimates in
  these releases continue to apply and have not materially changed.

#### **Cautionary Statement on Prospective Resources:**

Prospective Resources are those quantities of hydrocarbons which are estimated as of a given date to be potentially recoverable from undiscovered accumulations by the application of future development projects. These estimates have both an associated risk of discovery and a risk of development. The Prospective Resources shown in this announcement are probabilistically determined and unrisked and should not be construed as Reserves or Contingent Resources; they represent exploration opportunities and quantify the development potential in the event a hydrocarbon discovery is made. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

# Warrego uniquely positioned to meet future energy demands and optimise carbon transition



- Warrego aims to identify, appraise and develop low cost, onshore, low carbon energy solutions servicing stable markets with strong demand
- Focused on high value markets in Australia and Spain
- Three primary workstreams:
  - ➤ Natural Gas onshore conventional E&P focus
  - > Power Generation flexible and scalable gas to power facilities, supplemented by renewables
  - ➤ **Hydrogen & CCS** new venture opportunities, carbon offsets
- Committed to net zero emissions by 2050
- Well-funded<sup>1</sup> with no debt or outstanding commitments

### High quality portfolio with excellent longterm cash generation potential



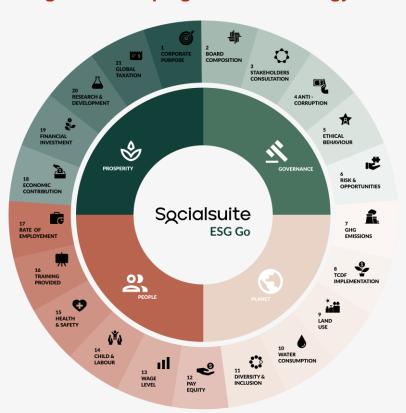
NATURAL GAS	North Perth Basin, WA  EP-469 (50%) West Erregulla (87 TJ/d gas project, pending development approvals)  Erregulla Deep (Early stage exploration)	Coolcalalaya Sub-Basin, WA EPA-0127 (100%, Operator) (Early stage exploration, permit conversion and farm-out to Mitsui pending)	Spain Tesorillo (85%, Operator) (830 Bcf gross prospective resources, appraisal pending drilling approvals)
POWER GENERATION			El Romeral Gas to Power Facility (50.1%, Operator) (Power generation, expansion pending permit approvals, adding renewables to mix with solar installation)
HYDROGEN & CCS	MWBH & CCS Feasibility Study (Blue Hydrogen & CCS feasibility study in conjunction with Pilot and APA)	Evaluating mid-term ${\rm H_2}$ and CCS potential	Evaluating long-term H <sub>2</sub> and CCS potential

Note: The Prospective Resource estimate for the Tesorillo asset was first released to the ASX by the Company on 7 May 2015.

#### Carbon strategy – net zero by 2050



#### Warrego is developing a carbon strategy that can evolve with the company and its projects



- Adopted independent ESG framework with 21 core metrics and disclosures created by the World Economic Forum
- Subscribed to Socialsuite's 'ESG Go' reporting platform
- Joined Mid West Blue Hydrogen and CCS consortium (Nov 2021) which is finalising a feasibility study
- West Erregulla gas processing emissions to be managed by AGIG under the terms of the GPSA
- In Spain, delivering complementary renewable energy solutions (e.g. Project Apollo, solar co-generation)
- Investigating the potential for gas storage, CCS and carbon management technologies across all assets



# EP469 – unlocking future growth potential

Northern Perth Basin, WA

warregoenergy.com

# **Excellent WE-3 flow test confirms Reserves** for West Erregulla Northern Area



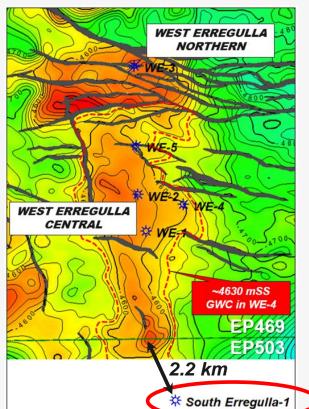
- Extended 7-day flow testing confirmed WE-3 as major producer<sup>1</sup>
- Stabilised flow of 83 MMscf/d, constrained by surface equipment, with flowing well head pressure of 3,474 psi on a 68/64" choke
- Excellent flow test results and gas composition support the Northern Area assumptions in the NSAI certified Reserves upgrade (July 2022)
- Evaluating well test data and samples



## South Erregulla may unlock more Reserves

for West Erregulla

- Strike Energy (Operator of EP469 and EP503) indicates communication between West Erregulla and South Erregulla<sup>1</sup>
- Warrego's mapping supports one connected gas pool
- Post the drilling of SE-1, Warrego's mapping of West Erregulla indicates a likely increase in gross rock volume in the southern part of the Central Area
- Evaluating the potential to increase West Erregulla Reserves; not addressed in July 2022 certification by NSAI



Data from SE-1 indicates that South Erregulla and West Erregulla are connected and one pool of gas

#### High grade exploration target at Erregulla Deep



- Erregulla Deep offers future substantial, low risk, growth potential in EP469
- Planned 3D seismic will provide detail of the Erregulla Deep structure
- A future discovery could be tied into West Erregulla or developed in conjunction with adjacent JVs in EP-426 or EP-368

Erregulla Deep OGIP\* and unrisked Prospective Resources\* Warrego estimates as at 18 May 2022

ED .	Lockyer Deep Discovery	EP-426
EP-368		EF-420
		Erregulla Deep
		Structure
West	Friegu	
West Erregulla		
Gas Field windalara ructure		
		-469
Top Kingia	<b>Depth Wa</b>	

Kingia (Bcf)	Low Estimate (1U)		Best Estimate (2U)		High Estimate (3U)	
	Gross	Net	Gross	Net	Gross	Net
Original Gas in Place*	230	115	370	185	560	280
Primary Sales Gas**	165	82	267	133	403	201

<sup>\*</sup> Probabilistically derived estimates of OGIP and unrisked Prospective Resources inside EP469 only \*\* Net of shrinkage

Refer ASX Announcement of 9 June 2022, "Warrego high-grades Erregulla Deep Structure in EP 469"

#### EP469 gas Reserves growth pathway



#### Booked Reserves

### Under Evaluation

### Future Potential

- West Erregulla 2P Reserves upgraded by 41% in July 2022 to 422 PJ gross
- 1P of 324 PJ gross exceeds requirements for Phase 1 of West Erregulla Gas Project

- Excellent WE-3 flow test supports latest Reserves upgrade
- SE-1 confirms West Erregulla connectivity that could further increase West Erregulla Reserves

- WE-6 to be drilled prior to first gas
- Erregulla Deep, a substantial, low risk exploration target with proximity to West Erregulla and Lockyer Deep

### West Erregulla Gas Project Phase 1 – 87 TJ/d





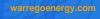
- Certified Gas Reserves with significant upside potential
- Gas Sales Agreement with Tier 1 Customer (Alcoa)
- Third Party Processing solution (AGIG)
- EPA and Regulatory approvals
- Project Finance and FID
- First gas<sup>1</sup> anticipated in late 2024

Refer Operator's (Strike Energy Limited, ASX: STX)
presentation released to the ASX on 23 August 2022,
"Euroz Hartley's Quarterly Energy Series", Slide 9



# EPA-0127 — the next Perth Basin?

Coolcalalaya Sub-basin, WA



Mitsui farm-out highlights exploration potential in EPA-0127

- Largest onshore WA exploration permit application covering 2.1 million acres (8,500 km<sup>2</sup>)
- Excellent proximity to pipeline infrastructure
- Farm-out 50% working interest to Mitsui E&P Australia
- Farm-out agreement subject to exploration permit grant
- Native Title negotiations at advanced stage
- Work program approved by DMIRS; JV partners planning to accelerate



**Early Permian & Older Rocks in EPA-0127** 

Extensive Permian and older sediments extend over 900 km from the Merlinleigh Sub-basin to the north Perth Basin

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Wagina/ Dongara Sandstone

Carynginia Fm

Irwin River Coal Measures

Holmwood Shale

Nangetty Formation

Northern

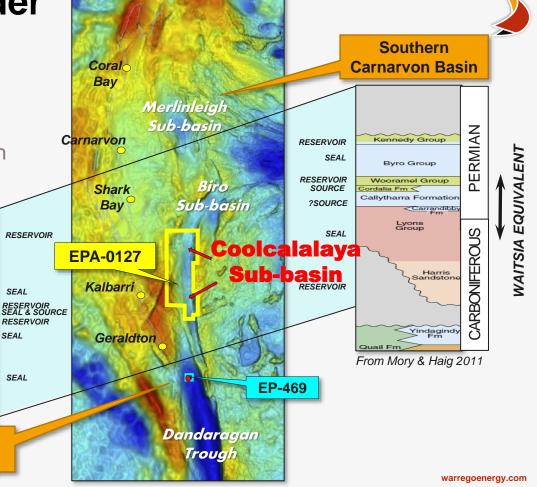
**Perth Basin** 

From Mory & Haig 2011

subsurface

ERMIAN

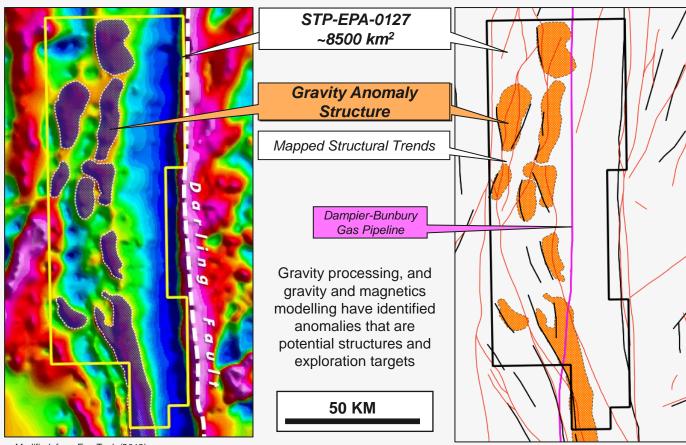
CARBONIFEROUS



#### **EPA-0127** – the next Perth Basin?



Asymmetric subbasin with multiple positive gravity anomalies identified



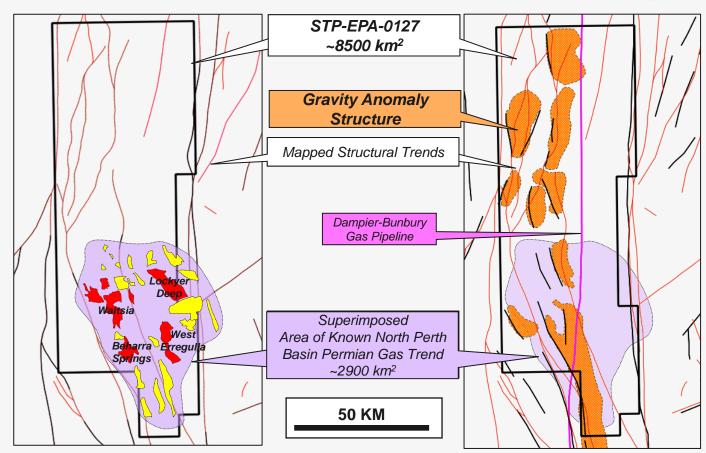
The interpretation of the gravity data across EPA-0127 was completed by Warrego Energy

Modified, from FrogTech (2013)

#### Potential massive structures identified



Anomalies likely to be structures similar in size or greater than those in the north Perth Basin

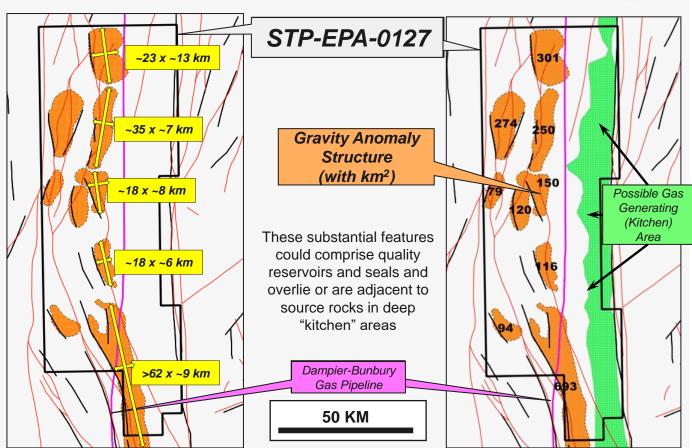


The interpretation of the gravity data across EPA-0127 was completed by Warrego Energy

#### Entire Sub-basin likely to be prospective



Basin asymmetry with likely eastern "kitchen" charging structures to the west



The interpretation of the gravity data across EPA-0127 was completed by Warrego Energy



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Research coverage

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Thank you

ASX: WGO

### **Glossary**



1P, 2P	Categories of Reserves
3D	3 dimensional
AGIG	Australian Gas Infrastructure Group
APA	APA Group (ASX: APA)
ASX	Australian Securities Exchange
Bcf	billion standard cubic feet
ccs	Carbon Capture & Storage
d	day
DMIRS	WA Dept of Mines, Industry Regulation and Safety
EP	Exploration Permit
EPA	Exploration Permit Application
ESG	Environment, Social, Governance
FID	Final Investment Decision
GPSA	Gas Processing Services Agreement
GRV	Gross Rock Volume
GWC	Gas Water Contact
H <sub>2</sub>	Hydrogen
JV	Joint Venture
Km	kilometre
Km <sup>2</sup>	Kilometres squared (Square Kilometres)
m	metre
mSS	Metres Sub-Sea level
MMscf	Million standard cubic feet

MWBH	Mid West Blue Hydrogen project
NSAI	Netherland Sewell & Associates Inc
OGIP	Original Gas in Place
Pilot	Pilot Energy Limited (ASX: PGY)
PJ	Petajoules
Psi	Pounds per Square Inch
SE-1	South Erregulla-1 well
TJ/d	Terrajoules per day
TVDSS	True Vertical Depth Sub Sea
WA	Western Australia
WE	West Erregulla
WGO	Warrego Energy (ASX:WGO)

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