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# 3D ENERGI - INVESTMENT SUMMARY

World-Scale Prospects, Super-Major Joint Venturer, Two funded wells, Attractive Valuation and Pipeline of Catalysts



# Multi-TCF Gas Prospects identified<sup>1</sup>

- Gross Prospective Gas Resource exceeding 12Tcf across 4 license areas
- ~620mmbbls+ Oil & Condensate potential



# Joint Venture already signed with ConocoPhillips Australia

- ConocoPhillips is one of the largest (~US\$140B² market cap) independent E&P companies
- ConocoPhillips Australia has signed two deals to carry 3D Energi in two wells for a cost of up to ~\$100M<sup>3</sup>



# Rig selected to drill two firm exploration wells

- Environment Plan will seek approval for the drilling of up to six exploration wells in permits VIC/P79 and T/49P
- Letter of Award for the Transocean Equinox semisubmersible rig to drill two (2) firm exploration wells



# 3D Energi's market capitalisation remains sub \$15M4

- With nil debt and just 265.4M shares on issue
- Compared to Net prospective resources (MMBOE) of 1,260 (Best Estimate (Recoverable))<sup>1</sup>
- Otway Net prospective resources of ~2.1 Tcf (Best Estimate (Recoverable))<sup>1</sup>



# Transformational next 12 months ahead, attracting industry interest

- JV will generate pipeline of news flow over next year and is attracting significant interest from gas suppliers and buyers
- Experienced management has identified, proven up and farmed out VIC/P79 and T/49P to a Super Major. Ability to repeat

**Prospective Resources** are those estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both a risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable hydrocarbons.

<sup>1)</sup> See Pages 33-34

As at 28 July 2023

<sup>(3)</sup> One exploration well carry for up to US\$35m, one optional carry for up to US\$30m

<sup>4)</sup> Δs at 28 July 202

# **CORPORATE OVERVIEW**

An experienced operator with a high-impact portfolio of offshore Australian exploration permits.

Shares on Issue

265.4m

**Share** Price

5.3¢

**16 February 2024** 

**Market** Cap

14.06m

Cash Balance

\$1.5m

December 2023

Capital Raised

**Since 2008** 

**Debt** 

Nil

Secured funding<sup>1</sup>

~A\$100m 54.9%

Top 20 Shareholders

2 exploration wells

Net Prospective **Resources**<sup>1</sup> (MMBOE)

1260

**Best Estimate** 



WA-527-P (100%) Bedout Sub-Basin



**GSEL 759 (100%)** Otway Basin

VIC/P79 (20%) & T/49P (20%) Otway Basin 3D energi

(3D)

enerai

VIC/P74 (100%) Gippsland Basin 3D energi

(1) Refer to Prospective Resources Cautionary Statement on Page 3 of this presentation

# TIMELINE TOWARDS COMMERCIALISATION

The Joint Venture is rapidly progressing towards drilling in 2025.

**'24** 



## **Drill Planning**

Approvals, site surveys, well design, procurement



## **3D Seismic Evaluation**

Sequoia / La Bella 3D Regia 3D acquisition



## **Otway Portfolio**

Final prospect inventory

25



# **2 Exploration Wells**

High impact gas prospects

126>



## +4 Exploration Wells

Contingent on Phase 1 drilling results

# **OTWAY FY23 EXPLORATION HIGHLIGHTS**

The Joint Venture is rapidly progressing towards drilling in 2025.

# THE TAKEAWAY

Significant milestones have been achieved over the course of FY23 as the Joint Venture progresses towards drilling in the Otway.

22-'23













Increase in gross prospective resource (VIC/P79) Carry towards one exploration well (VIC/P79) Cash received (VIC/P79 farmout)

3D seismic **Processed** (Sequoia)

3D seismic

Reprocessed

(Flanagan)

2D seismic Reprocessed (T/49P)

**79**%

US\$35<sub>м</sub>

**US\$3**<sub>м</sub>

1782<sub>km²</sub>

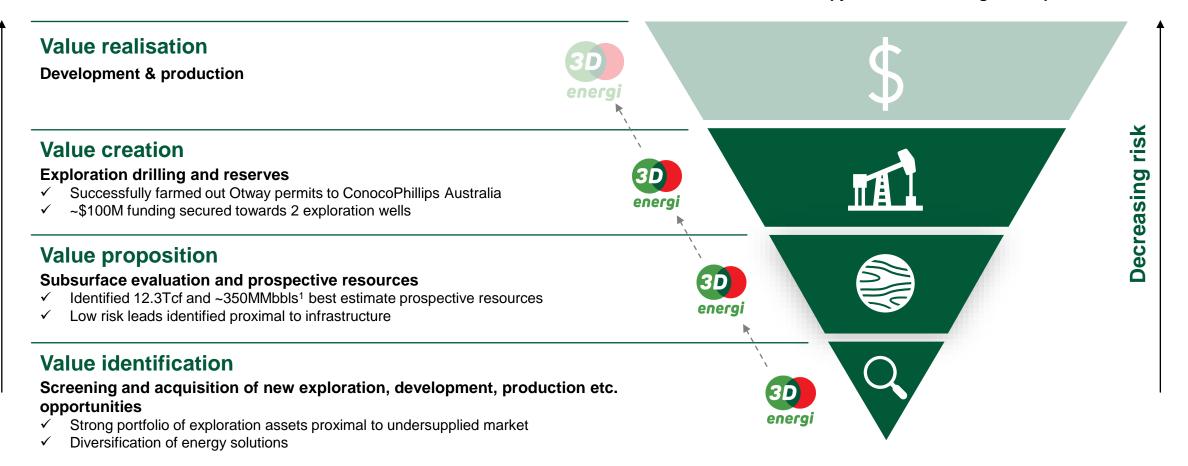
1115<sub>km²</sub>

687 line km

# 3D ENERGI IS CLIMBING THE VALUE CHAIN

3D Energi is progressing its work programs by attracting key joint venturers to realise value for shareholders.

## Traditional value lift pyramid for oil and gas companies





# VICTORIA IS RAPIDLY DEPLETING ITS NATURAL GAS RESERVES...

Victoria's demand for gas is higher than any other state

# Some applications of natural gas

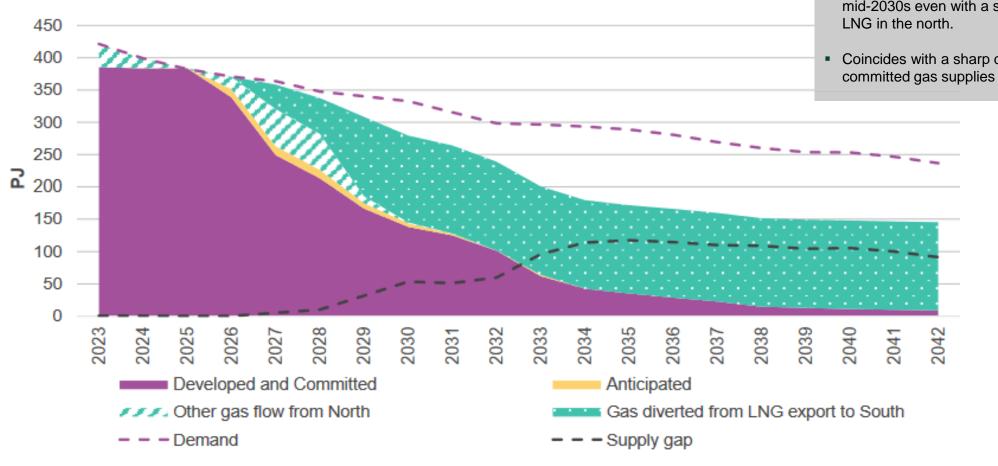
- ✓ Electricity generation (supporting emissions reduction)
- ✓ Heating / Cooling (hospitals etc.)
- ✓ Manufacturing (bricks, glass, packaging, paper etc.)
- ✓ Agriculture (fertilisers etc.)





# THE OPPORTUNITY - EAST COAST GAS DEMAND IS STRONG

All evidence points to strong future demand for east coast gas.



 AEMO forecasts a supply gap of 100PJ from the mid-2030s even with a significant diversion from

 Coincides with a sharp decline in developed and committed gas supplies as fields deplete.

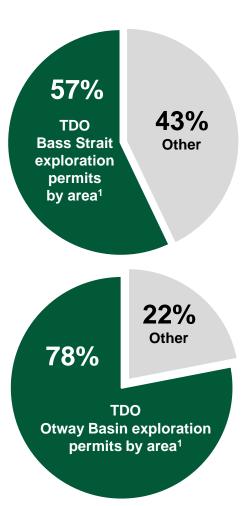
Projected annual gas supply adequacy in southern regions – Orchestrated Step Change (1.8deg C) scenario, 2023 – 42 (PJ) Source: AEMO - 2023 Gas Statement of Opportunities

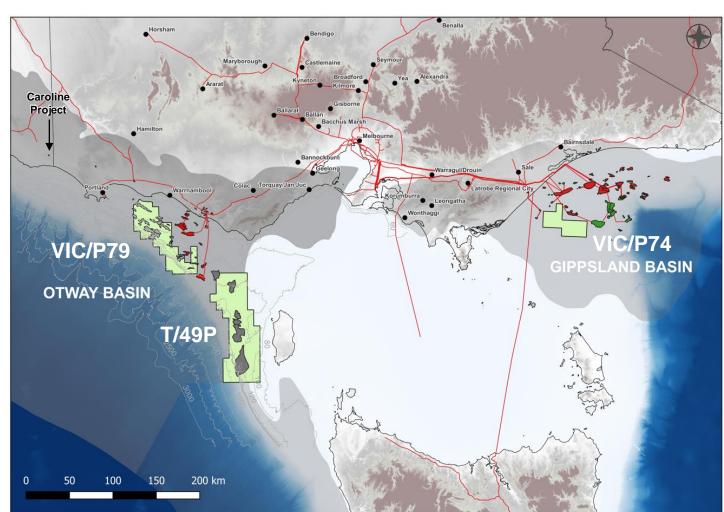
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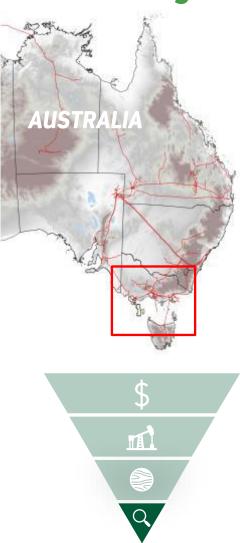


# 3D ENERGI PROXIMAL TO EAST COAST GAS MARKET / INFRASTRUCTURE

3D Energi is a significant player in Australian offshore east coast gas exploration.









# SIGNIFICANT PROSPECTIVE RESOURCES

12 Tcf gross prospective resource have been identified in 3D Energi exploration permits across Bass Strait.

VIC/P791

849<sub>Bcf</sub>

Best Estimate
Prospective Resources

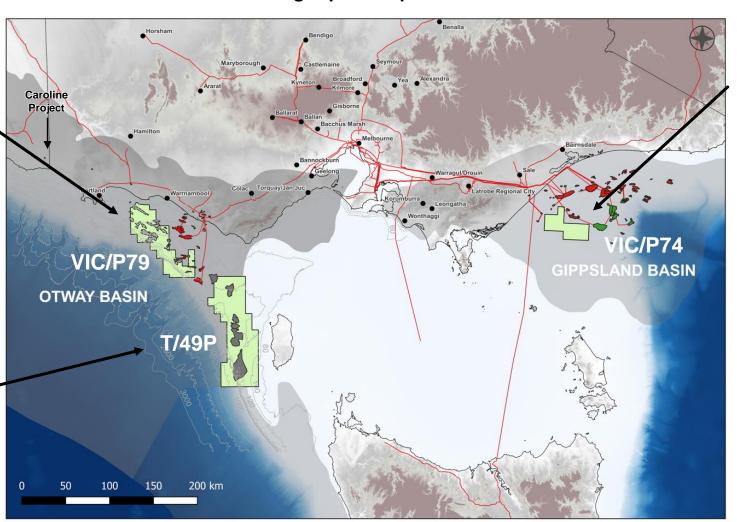
- Low risk, leads and prospects portfolio with direct hydrocarbon indicators in VIC/P79.
- Proximal to existing discoveries and infrastructure.

T/49P1

1.3 Tcf

87 Tcf

Best Estimate Prospective Resources



VIC/P74<sup>2</sup>

1.8 3D seismic

Best Estimate
Prospective Resources

- Gas production rapidly declining as fields deplete in mature basin.
- Located on the fringe of a prolific hydrocarbon province.



<sup>(1) 20%</sup> net prospective resources to 3D Energi.

# 3D ENERGI PROSPECTIVE RESOURCES IN CONTEXT

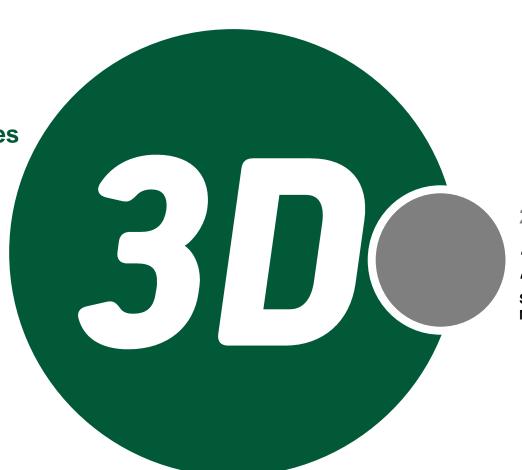
12 Tcf gross prospective resource have been identified in 3D Energi exploration permits across Bass Strait.

3D Energi net share

**Otway prospective resources** 

2180<sub>PJ1</sub>

Based on 20% share of VIC/P79 and T/49P best estimate prospective resources





2022 Victorian gas consumption

214.5<sub>PJ<sup>2</sup></sub>

Source: AEMO Victorian Gas Planning Report – March 2023

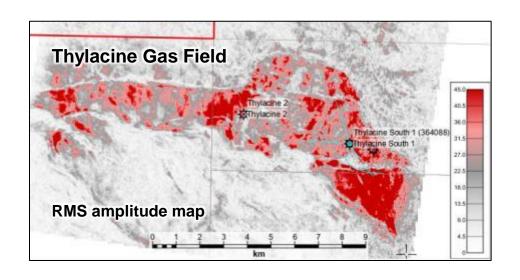
PJ (unit of measurement of energy consumption)

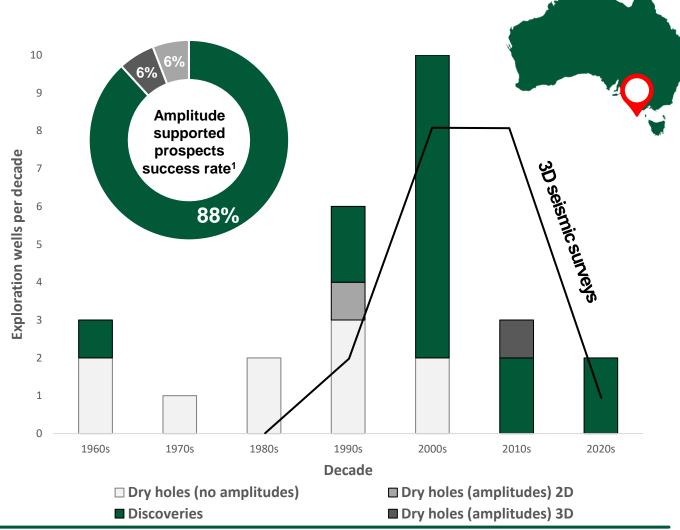
HIGH SUCCESS RATE DRILLING SEISMIC AMPLITUDES IN THE OTWAY BASIN

Otway Basin has an outstanding success rate drilling amplitude supported prospects.

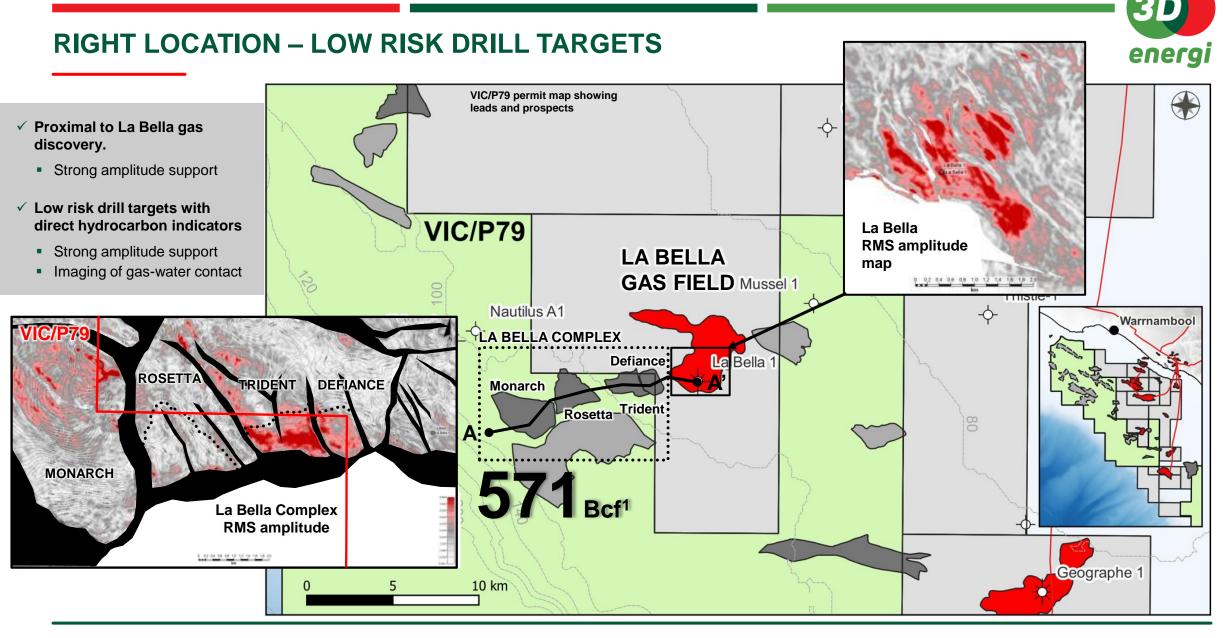
## 88% success rate drilling amplitude supported prospects

- Many early exploration failures targeting non-amplitude supported prospects.
- Only 1 dry hole targeting amplitude supported leads in the last 20+ years (prospect has poor amplitudes).
- Success rates tied to increasing application of good quality 3D seismic.



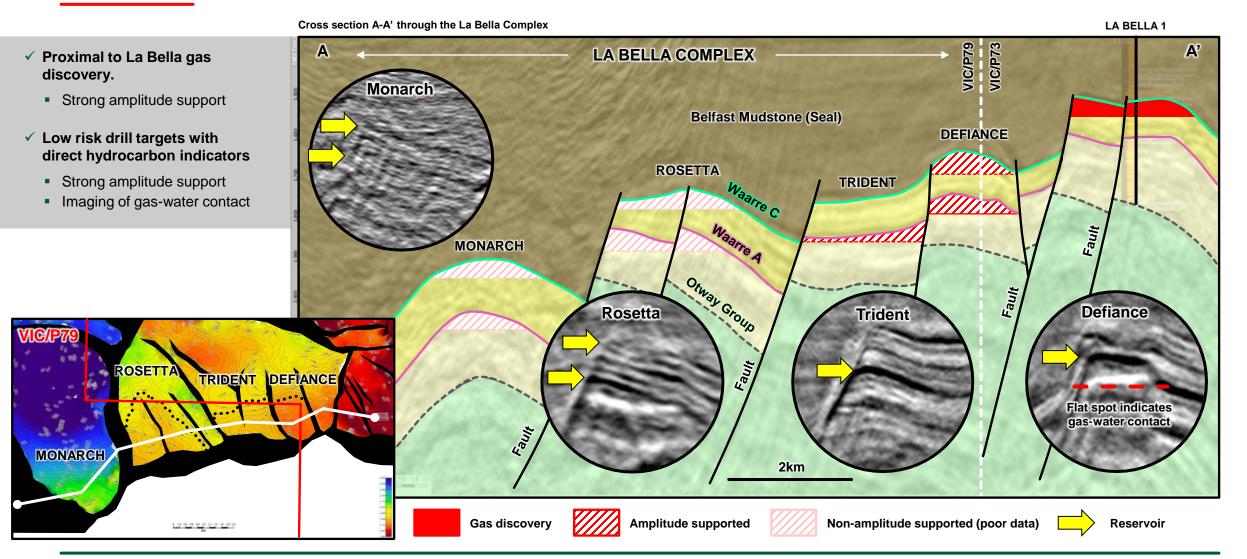


Conan-1 and Thistle-1 included in Otway Basin amplitude supported dry holes.



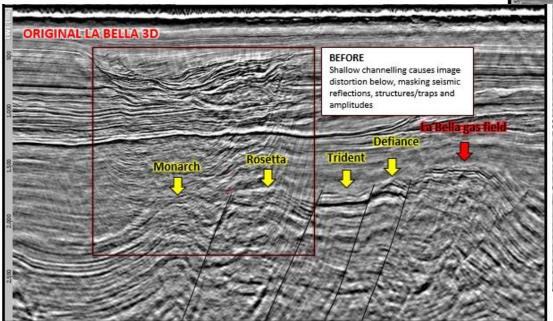


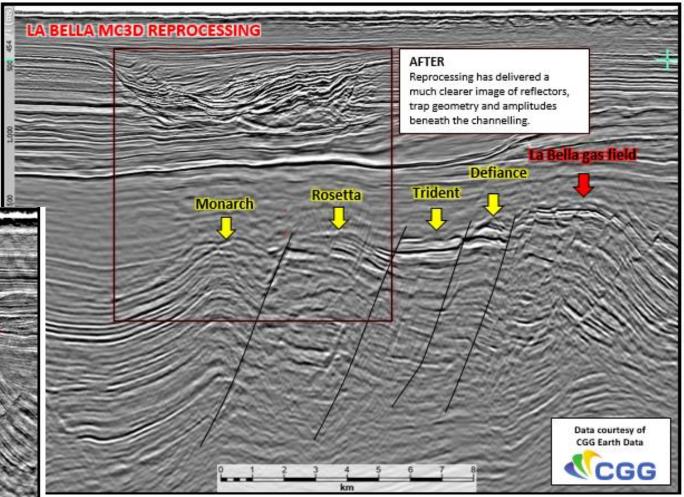
# RIGHT LOCATION – SEISMIC AMPLITUDE SUPPORTED PROSPECT INVENTORY



# LA BELLA MC3D REPROCESSING PROJECT

- Extensive shallow channelling above key leads masks underlying seismic reflections at key traps.
  - First clear and consistent image over Rosetta and Monarch leads.
  - Supports prospective resource estimate at Monarch.







# **MONARCH PROSPECT – DIRECT HYDROCARBON INDICATIONS**

✓ Largest undrilled structure in the permit to date. MONARCH • 316 Bcf<sup>1</sup> prospective resource (best estimate). Increases prospective resource base of VIC/P79 to 849 Bcf (best estimate). LA BELLA GAS Flat spot √ Flat spot detected on reprocessed data is consistent DISCOVERY LA BELLA COMPLEX with surrounding gas fields. DEFIANCE Potential for additional prospectivity in deeper ROSETTA TRIDENT reservoir (possible flat spot?). √ High Geological Probability of Success at 47%. MONARCH VIC/P79 MUSSEL PLATFORM Flat spot **MONARCH PROSPECT** THE LA BELLA COMPLEX **VOLUTA TROUGH** Rosetta Trident Defiance MINERVA FIELD Monarch

TOP WAARRE C

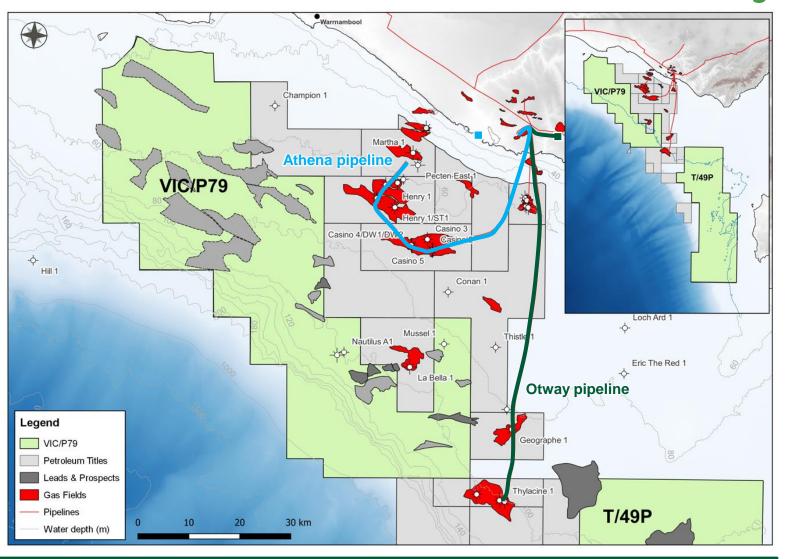
# **RIGHT LOCATION – PROXIMAL TO INFRASTRUCTURE**

- √ High value drill targets are proximal to existing infrastructure
- ✓ Otway Gas Plant
  - Operated by Beach Energy
  - Connects Thylacine/Geographe and Halladale/Speculant gas fields
  - Daily capacity: 205 TJ/d
  - Current utilisation: up to 174TJ/d, Q3 FY23 avg 117TJ/d<sup>1,2</sup>
    - Recently connected 4 new Thylacine development wells
    - Thylacine West 1 and 2 not yet connected
    - Enterprise connection targeting first gas mid-FY24<sup>2</sup>

### ✓ Athena Gas Plant

- Operated by Cooper Energy
- Casino/Henry/Netherby gas fields
- Daily capacity: 150 TJ/d
- Current utilisation: ~25 TJ/d<sup>1,3</sup>
  - Option to drill subsea development wells as part of FY25





**AEMO Gas Bulletin Board** 

Beach Energy FY23 Fourth Quarter Activities Report

Cooper Energy Q4 FY23 Quarterly Report





# ConocoPhillips Australia

Our JV with ConocoPhillips Australia has many benefits for 3D Energi.



Farmout deals: cash, seismic, wells



**Operational synergies between Otway permits** 



**Risk management** 



World class operator



**Experience delivering commercial projects** 



Access to world class expertise, systems, processes

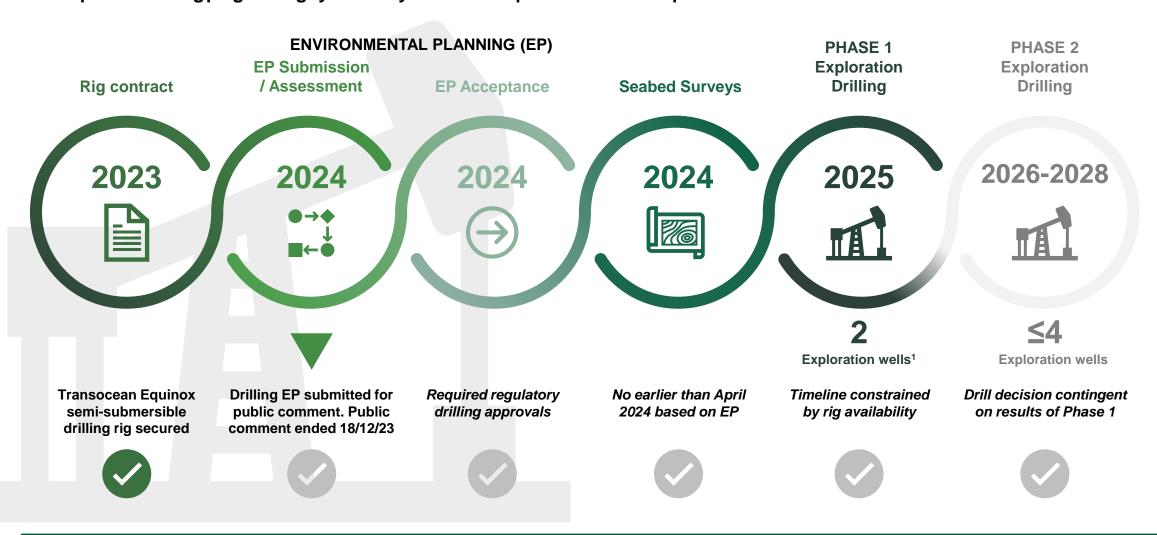


ConocoPhillips has the capital to rapidly progress projects



# OTWAY EXPLORATION DRILLING PROGRAM

2025 exploration drilling program largely funded by Joint Venture partner ConocoPhillips Australia<sup>1</sup>.





# WA-527-P - BEDOUT SUB-BASIN, NORTHWEST SHELF

## THE TAKEAWAY

3D Energi has identified significant oil prospectivity across an area adjacent to Dorado, the largest Australian oil discovery on the NW shelf in 30 years.

Project **equity** 

100%

~6580km<sup>2</sup> area

Prospective **Resource** 

349<sub>MMBBLS1</sub>

Best estimate (3 targets)

Massive **Structure** 

150<sub>km<sup>2</sup></sub>

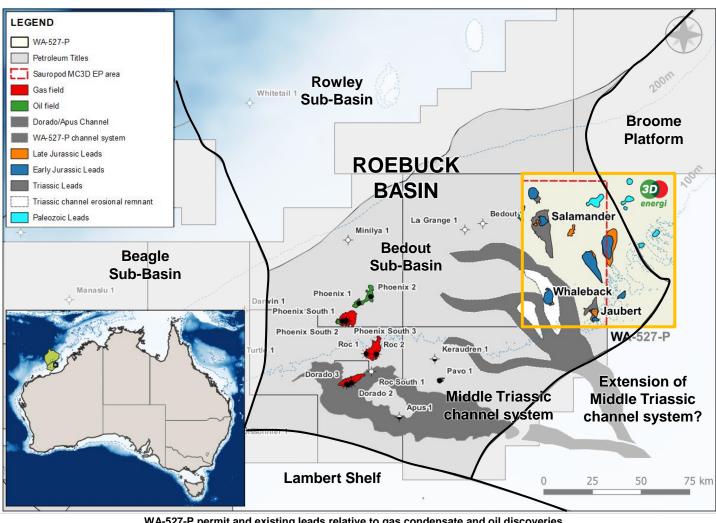
Salamander Lead

- Located on basin margin fringing oil and condensate discoveries.
- Pavo discovery demonstrates oil migration to basin margin.
- Access to multiple plays **potential Dorado analogue** play.
- Sauropod MC3D planning for 2024/2025 acquisition.
- Aims to define prospectivity in the western half of the permit.

Work **Program** 

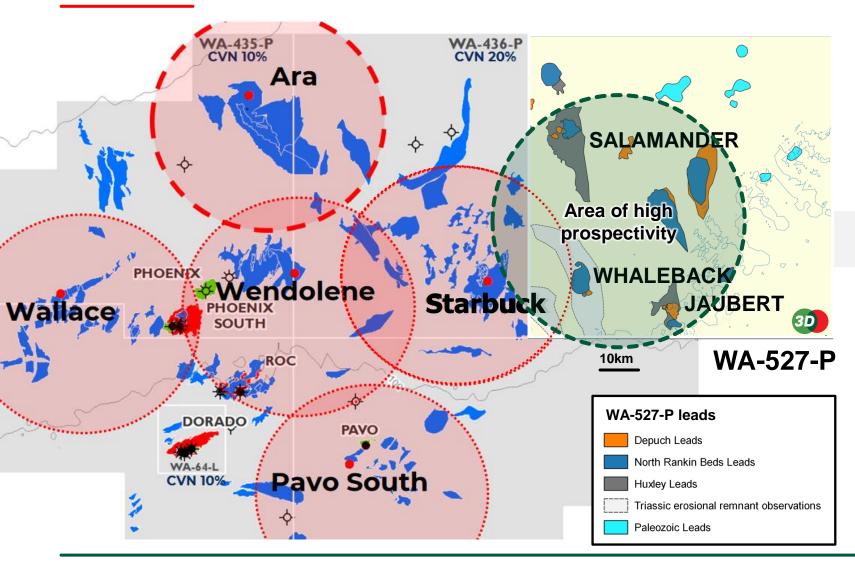
510<sub>km<sup>2</sup></sub>

Minimum 3D seismic commitment



WA-527-P permit and existing leads relative to gas condensate and oil discoveries.

# BASIN ACTIVITIES – DEVELOPMENT & IMPENDING EXPLORATION BORDERING WA-527-Energi



## THE TAKEAWAY

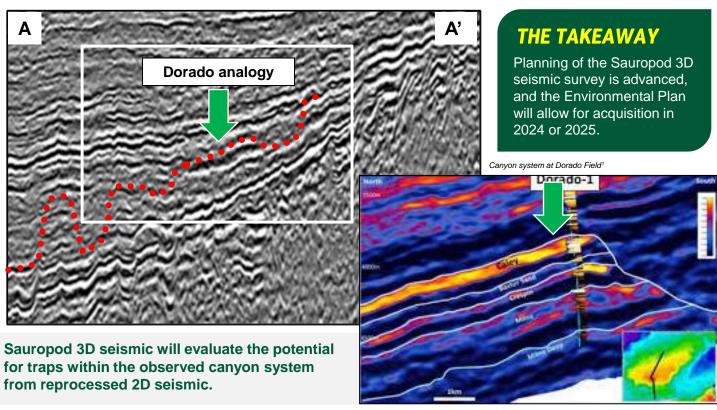
Planned exploration activities have the potential to upgrade WA-527-P. The Santos Joint Venture has identified a prospective drill target next to WA-527-P, Starbuck, which may form part of an impending drilling campaign.

# There is significant activity happening in the Bedout for the foreseeable future.

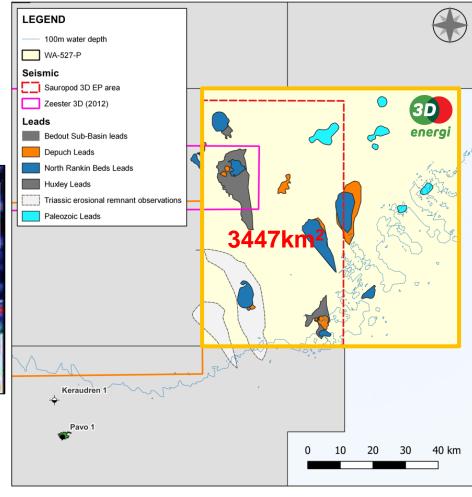
- Dorado Field Phase 1 liquids Final Investment Decision targeted for 2024<sup>1</sup>.
- Exploration success will underpin Phase 2 gas project at Dorado<sup>1</sup>.
- Five (5) key prospect clusters identified by the Santos-Carnarvon-CPC Joint Venture for impending exploration, including Starbuck Prospect<sup>1</sup>.
- Starbuck lies ~10km from WA-527-P and has a mean prospective resource of 101MMbbls and 214 Bcf. Geological chance of success is estimated at 58% by the JV<sup>1</sup>.



# SAUROPOD MC3D SEISMIC SURVEY PLANNING



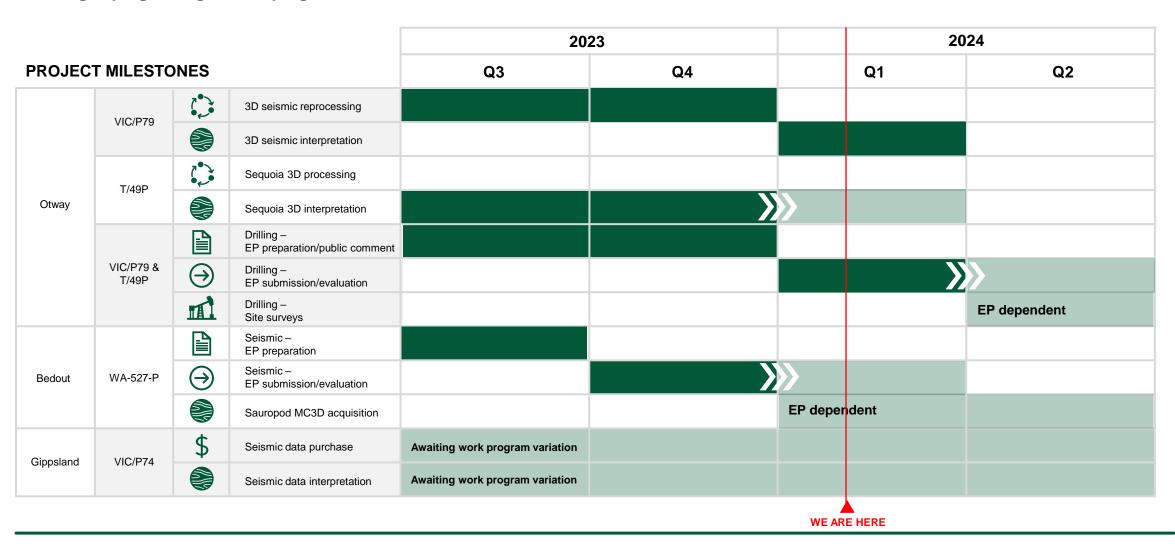
- 2-year Environmental Plan has been submitted for public comment.
- Acquisition window of January-May 2024 / 2025.
- Large area provides flexibility to cover plays and leads of interest.
- □ Sauropod covers extent of mapped canyon system and existing leads.



Environmental Planning area within WA-527-P (red polygon) covers major leads.

# FORWARD CATALYSTS

3D Energi is progressing its work programs to realise value for shareholders.



# SUMMARY

# **OPPORTUNITY**



High quality exploration portfolio



Proximal to undersupplied gas market



Outstanding portfolio of potential drill targets with significant prospective resources (12 Tcf gross)<sup>1</sup>



Lower risk near-field exploration

# **DELIVERABILITY**



Strong Joint Venture relationship with ConocoPhillips Australia



~A\$100 million funding towards 2 exploration wells



Established pathway to commercial gas project

(1) Refer to Prospective Resources Cautionary Statement on Page 3 of this presentation

# **EXPERIENCED TEAM IN DELIVERING OIL & GAS PROJECTS**

A diverse and highly experienced management team with a proven track record developing and operating significant oil and gas projects.

## Mr Noel Newell Executive Chairman

3D Energi Limited Founder with 20 years as Managing Director and 40 years in the oil and gas business, 20+ years with BHP and Petrofina, as a Principal Geoscientist. Current APPEA board member.



# Mr Ian Tchacos Non-Executive Director

Petroleum Engineer with 30+ years in oil and gas business, 20+ years as an Executive Director or Executive Chairman of ASX listed companies.



# Mr Trevor Slater Non-Executive Director

35+ years as a Director or senior executive developing and operating resource and construction projects within Australia and overseas.



# Mr Leo DeMaria Non-Executive Director

14 years as a Chartered Accountant in the FMCG industry, initially as a Financial Accountant and then as a Commercial Manager.





# **CONTACT US**



Noel Newell

**Executive Chairman** 

info@3denergi.com.au +61 3 9650 9866





# NOTES ON PETROLEUM RESOURCE ESTIMATES

## **Prospective Resources**

Under the SPE PRMS 2018, Prospective Resources are "those quantities of petroleum that are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations". Volumes are reported using the terms low estimate, best estimate and high estimate.

The estimates have been prepared by the company in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System, 2011 approved by the Society of Petroleum Engineer. Prospective Resource estimates are for recoverable volumes and unless otherwise stated all petroleum estimates reported are aggregated by arithmetic summation by category. The estimates are unrisked and have not been adjusted for both an associated chance of discovery and a chance of development. 3D Energi uses both deterministic and probabilistic methods for estimation of Prospective Resources.

The estimates of Prospective Resources contained in this presentation are current. The Company is not aware of any new information or data that materially affects the estimates of Prospective Resources, and the material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Conversion factors used to evaluate oil equivalent quantities: 1P of natural gas equals 0.171 million boe; 1 barrel of condensate equals 0.935 boe; 1 barrel of crude oil equals 1 boe.

## **Qualified Petroleum Reserves and Resources Evaluator Statement**

The Prospective Resources estimates in this release are based on, and fairly represent, information and supporting documents prepared by, or under the supervision of Dr Daniel Thompson, who is employed full-time by 3D Energi Limited as Exploration Manager. He holds a BSc. Hons and PhD in Petroleum Geosciences, has been practicing as a Petroleum Geoscientist for 10 years and is a member of the American Association of Petroleum Geologists (AAPG) and Petroleum Exploration Society of Australia (PESA). Dr Thompson is qualified in accordance with ASX listing rule 5.41 and has consented in writing to the inclusion of the information in the form and context in which it appears.

# **PORTFOLIO SUMMARY**

# **Gross Prospective Resources**<sup>1</sup>



Conversion factors used to evaluate oil equivalent quantities: 1P of natural gas equals

									_ 6
<b>T/49P (20%)</b> Otway Basin	Oil & Condensate (MMbbls)			Gas (Bcf)			Barrels of Oil Equivalent (MMBOE)		
	Low	Best	High	Low	Best	High	Low	Best	High
Flanagan	6.4	16.1	32.8	530	1340	2740	102.1	258.1	527.7
Seal Rocks	11.4	55.6	127.6	950	4640	10640	183.0	893.7	2049.4
Whistler Point	9.9	24.5	107.4	820	2040	8950	158.0	392.9	1723.8
British Admiral	4.5	12.4	53.4	370	1030	4450	71.3	198.4	857.1
Harbinger	-	-	-	330	790	1430	59.9	143.3	259.4
Munro (In-permit)	0.5	2.3	6.8	40	190	570	7.7	36.6	109.8
Total	32.57	110.85	328.03	3,040	10,030	28,780	581.9	1,923	5,527.2
VIC/P79 (20%) Otway Basin	Oil & Condensate (MMbbls)				Gas (Bcf)		Barrels of Oil Equivalent (MMBOE)		
	Low	Best	High	Low	Best	High	Low	Best	High
Monarch	-	-	-	176	316	506	31.9	57.3	91.8
Essington	-	-	-	159	246	357	28.8	44.6	64.8
Rosetta	-	-	-	82	155	249	14.9	28.1	45.2
Trident	-	-	-	40	57	80	7.3	10.3	14.5
Defiance	-	-	-	28	43	65	5.1	7.8	11.8
Lady Robilliard	-	-	-	21	32	51	3.8	5.8	9.3
Total	-	-	-	506	849	1308	91.8	154	237.3
VIC/P74 (100%) Gippsland Basin	Oil & Condensate (MMbbls)				Gas (Bcf)		Barrels of Oil Equivalent (MMBOE)		
	Low	Best	High	Low	Best	High	Low	Best	High
Oarfish	26.7	57.8	127.1	303	544	918	81.7	156.4	293.6
Bigfin	1.9	17.8	36.5	296	502	783	55.6	108.8	178.5
Megatooth	31.7	73.0	154.7	259	465	784	78.7	157.3	297
Stargazer	2.8	11.2	34.6	192	344	564	37.6	73.6	137
Total	63.2	159.7	352.8	1050	1855	3049	253.6	496.2	906.1
WA-527-P (100%) Bedout Sub-Basin	Oil & Condensate (MMbbls)			Gas (Bcf)			Barrels of Oil Equivalent (MMBOE)		
	Low	Best	High	Low	Best	High	Low	Best	High
Salamander	57	191	713	-	-	-	-	-	-
Jaubert	17	72	205	-	-	-	=	-	-
Whaleback	16	87	219	-	-	-	-	-	-
Total	90	349	1,138	-	-	-	-	-	-

<sup>1</sup> barrel of condensate equals 0.935 boe; 1 barrel of crude oil equals 1 boe.

# **PORTFOLIO SUMMARY**

# Net Prospective Resources<sup>1</sup>



Conversion factors used to evaluate oil equivalent quantities: 1P of natural gas equals 0.171 million boe;

T/49P (20%)	Oil & Condensate (MMbbls)			Gas (Bcf)			Barrels of Oil Equivalent (MMBOE)		
Otway Basin	Low	Best	High	Low	Best	High	Low	Best	High
Florogon	1.3	3.2	6.6						
Flanagan				106	268	548	20.4	51.6	105.5
Seal Rocks	2.3	11.1	25.5	190	928	2128	36.6	178.7	409.9
Whistler Point	2.0	4.9	21.5	164	408	1790	31.6	78.6	344.8
British Admiral	0.9	2.5	10.7	74	206	890	14.3	39.7	171.4
Harbinger	-	-	-	66	158	286	12.0	28.7	51.9
Munro (In-permit)	0.1	0.5	1.4	8	38	114	1.5	7.3	22.0
Total	6.5	22.2	65.6	608	2,006	5,756	116.4	384.6	1,105.4
VIC/P79 (20%) Otway Basin	Oil & Condensate (MMbbls)				Gas (Bcf)		Barrels of Oil Equivalent (MMBOE)		
	Low	Best	High	Low	Best	High	Low	Best	High
Monarch	-	-	-	35.2	63.2	101.2	6.4	11.5	18.4
Essington	-	-	-	31.8	49.2	71.4	5.8	8.9	13.0
Rosetta	-	-	-	16.4	31	49.8	3.0	5.6	9.0
Trident	-	-	-	8	11.4	16	1.5	2.1	2.9
Defiance	-	-	-	5.6	8.6	13	1.0	1.6	2.4
Lady Robilliard	-	-	-	4.2	6.4	10.2	0.8	1.2	1.9
Total	-	-	-	101.2	169.8	261.6	18.4	30.8	47.5
VIC/P74 (100%) Gippsland Basin	Oil & Condensate (MMbbls)				Gas (Bcf)		Barrels of Oil Equivalent (MMBOE)		
	Low	Best	High	Low	Best	High	Low	Best	High
Oarfish	26.7	57.8	127.1	303	544	918	81.7	156.4	293.6
Bigfin	1.9	17.8	36.5	296	502	783	55.6	108.8	178.5
Megatooth	31.7	73.0	154.7	259	465	784	78.7	157.3	297
Stargazer	2.8	11.2	34.6	192	344	564	37.6	73.6	137
Total	63.2	159.7	352.8	1050	1855	3049	253.6	496.2	906.1
WA-527-P (100%) Bedout Sub-Basin	Oil & Condensate (MMbbls)			Gas (Bcf)			Barrels of Oil Equivalent (MMBOE)		
	Low	Best	High	Low	Best	High	Low	Best	High
Salamander	57	191	713	-	-	-	-	-	-
Jaubert	17	72	205	-	-	-	-	-	-
Whaleback	16	87	219	-	-	=	-	-	-
Total	90	349	1,138	-	-	-	-	-	-

<sup>1</sup> barrel of condensate equals 0.935 boe; 1 barrel of crude oil equals 1 boe.