

# Southern Australia Gas Supply

Euroz Hartleys Institutional Conference



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This Presentation contains information on petroleum reserves and resources which is based on and fairly represents information and supporting documentation prepared under the supervision of Mr Andrew Thomas who is a full time employee of Cooper Energy holding the position of General Manager, Exploration & Subsurface, holds a Bachelor of Science (Hons), is a member of the American Association of Petroleum Geologists and the Society of Petroleum Engineers, is qualified in accordance with ASX Listing Rule 5.41 and has consented to the inclusion of this information in the form and context in which it appears. P50 as it relates to costs is best estimate: P90 as it relates to costs is high estimate.

The estimates of petroleum reserves and contingent resources contained in this presentation are as at 30 June 2021. Cooper Energy is not aware of any new information or data that materially affects the estimates of reserves and contingent resources and the material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. Cooper Energy prepares its petroleum reserves and contingent resources estimates in accordance with the 2018 Petroleum Resources Management System (PRMS) sponsored by the Society of Petroleum Engineers (SPE). Unless otherwise stated, all references to petroleum reserves and contingent resources quantities in this presentation are Cooper Energy's net share. Reference points for Cooper Energy's petroleum reserves and production are defined points within Cooper Energy's operations where normal exploration and production business ceases, and quantities of produced product are measured under defined conditions prior to custody transfer. Fuel, flare and vent consumed to the reference points are excluded.

Petroleum reserves are aggregated by arithmetic summation by category and as a result, proved reserves may be a very conservative estimate due to the portfolio effects of arithmetic summation. Petroleum reserves are typically prepared by deterministic methods with support from probabilistic methods. Petroleum reserves replacement ratio is the ratio of the change in petroleum reserves (excluding production) divided by production. Organic reserves replacement ratio excludes net acquisitions and divestments. Conversion factors used to evaluate oil equivalent quantities are sales gas and ethane: 1PJ of sales gas and ethane equals 171,937 boe; 1 tonne of LPG equals 8.458 boe; 1 barrel of condensate equals 0.935 boe; 1 barrel of crude oil equals 1 boe.

Numbers in this presentation have been rounded. As a result, some figures may differ insignificantly due to rounding and totals reported may differ insignificantly from arithmetic addition of the rounded numbers.

Approved and authorised for release by David Maxwell, Managing Director, Cooper Energy Limited.

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### Introduction

### **Emerging themes**



# Elements for a successful growing gas business





- Gas supply tight
- Energy markets volatility
- Increasing energy prices
- Geopolitical tensions / energy security
- Transition to cleaner fuels in the energy mix
- Pressures on stable electricity supply



#### **RESOURCE**

Affordable, cost competitive, proven deliverability, long-life, well located relative to market



#### **INFRASTRUCTURE**

Ideally located processing and transport capacity



#### **MARKET**

Strong gas demand outlook



#### **RELATIONSHIPS**

Environment, Community, Regulators, Government, Financiers, Shareholders

- ✓ Record results across key financials
- ✓ Step change production and increasing
- ✓ Balanced sales portfolio of contracted and spot
  - ✓ Net Carbon Zero
- ✓ Secure access to infrastructure close to demand
  - Material development and exploration close to market



#### **Net zero carbon emissions**

#### Pursuing partnerships and emission reductions - maintain long-term net zero objective

- Continued partnership with Greening Australia and Biodiverse Carbon for the Coorong Biodiversity Project
- 4,352 ACCUs retired to fully offset FY21 Scope-1, Scope-2 and controllable Scope-3 emissions
- Carbon Neutral Certification from ClimateActive for Organisation and opt-in Gas Product
- Progressing other strategic partnerships and opportunities including offset project development
- Further details available in Cooper Energy's Sustainability Report 2021 (<u>Link</u>)





#### **Opt-in Gas Carbon Neutral Product Certification**

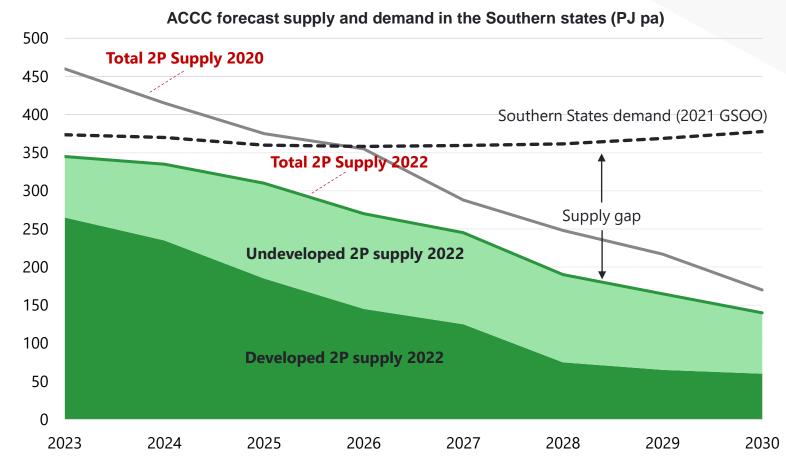
- Enables sale of 'carbon neutral gas' through offset of the certified amount at customer cost
- Certifies an emissions intensity for the full lifecycle of our gas (kg CO<sub>2</sub>e/GJ), including downstream Scope-3 - offset in arrears when customers opt-in
- Positive initial discussions with existing and potential customers. Formal discussions commencing soon



## Domestic gas market dynamics support new developments

ACCC's latest gas inquiry report illustrates rapidly declining southern gas production

- Since 2020 the total forecast supply from 2P reserves in the Southern states over the period to 2030 reported by the ACCC has reduced by 20%
- Downside case 40% of supply is from "reserves" which are yet to be developed
- Cooper Energy's strategy is leveraged to deliver value from this market opportunity



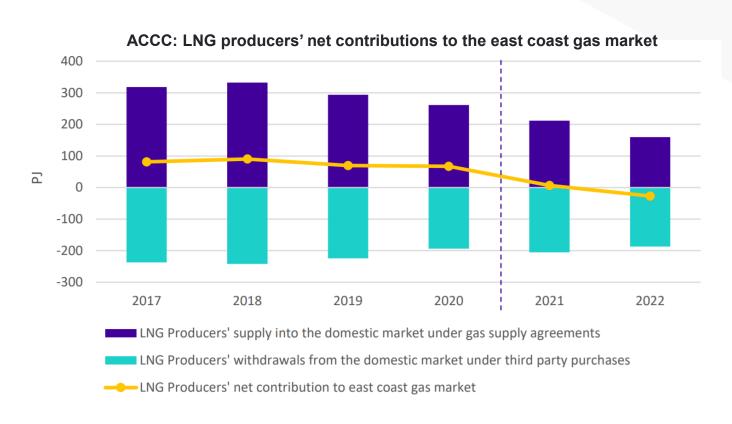
Supply includes Cooper Basin, Otway Basin and Gippsland Basin. Demand includes VIC, NSW, SA, ACT and TAS Source: Cooper Energy analysis of January 2020 and January 2022 ACCC Gas Inquiry Reports



## Reliance on Queensland gas to meet southern demand

Growing influence of LNG pricing on domestic gas prices as southern supply declines

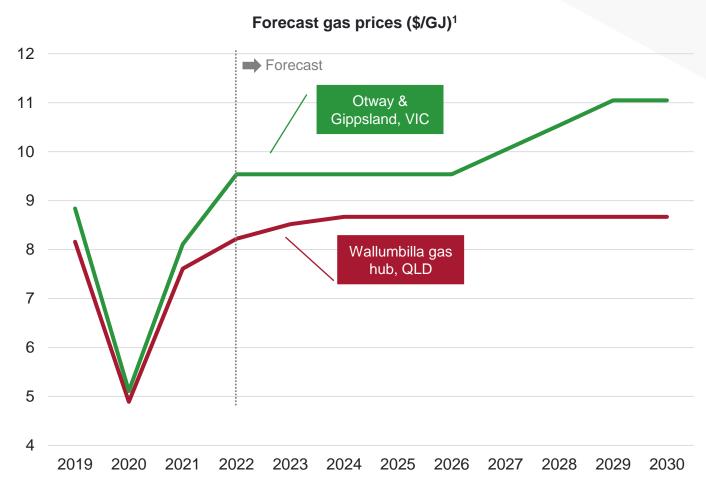
- Recent trend illustrates LNG producers purchasing more 3rd party gas than gas supplied to domestic market
- Supply outlook in the southern states has deteriorated since the ACCC July 2021 interim report
- Expect there should be sufficient gas in Queensland to meet projected shortfall in the south
  - extra transport cost for Queensland gas to southern markets
  - likely put upward pressure on the delivered gas prices paid



# A strengthening domestic gas price outlook

LNG netback an increasing influence on domestic gas prices

- Increasing influence of global LNG prices on domestic gas prices
- LNG netback price is becoming the point of indifference for domestic gas supply
  - average 2023 ACCC forecast LNG netback price of \$25.80/GJ<sup>2</sup>
  - ACCC to commence reporting of long-term LNG netback price series following consultation
- Queensland CSG and LNG imports expected to meet shortfall and represent the marginal cost of supply



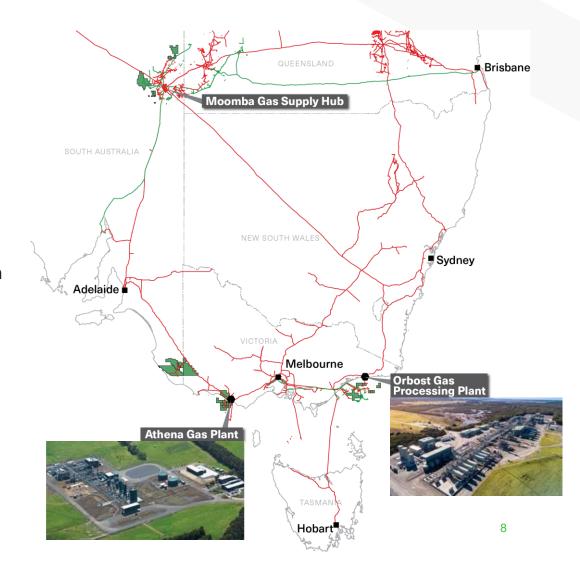
<sup>1.</sup> Source: EnergyQuest

<sup>2.</sup> Source: ACCC as at 1 March 2022; LNG netback price is ACCC's measure of an export parity price that a gas supplier can expect to receive for exporting its gas

# Cooper Energy - twin hub strategy driving sustainable growth

Strategically located gas supply portfolio combining Otway and Gippsland basins

- Proven, cost competitive hydrocarbon basins connected to southeastern markets
- Athena Gas Plant<sup>1</sup> returned to service on 10 December 2021
  - processing at 27 33 TJ/day and being optimised
  - > low-cost, owned and operated gas processing infrastructure
  - ~150 TJ/day gas processing capacity
- Orbost Gas Processing Plant<sup>2</sup> performance improvements resulted in an increased stable processing rate >50TJ/d from January 2022
- Infrastructure and path to market in place for growth in existing and future production
- Gas supply tight; prices rising with increasing influence of LNG prices
- Global energy outlook gas will be required for decades

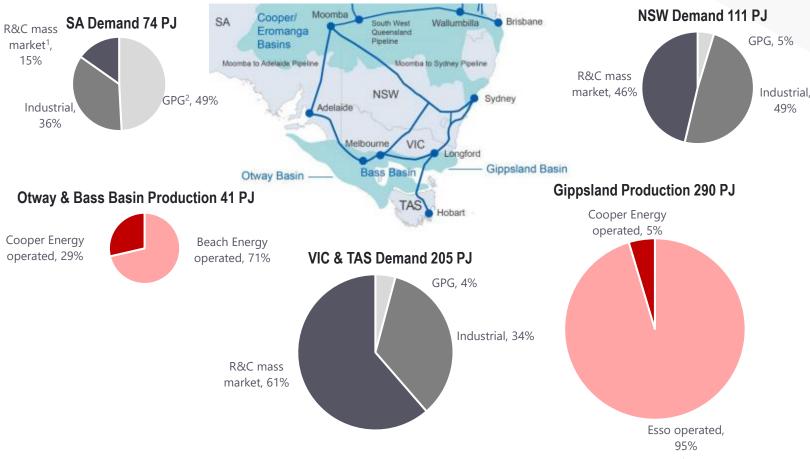


# Gas hubs positioned where gas supply is needed

Sydney, Melbourne and Adelaide - largest domestic gas market in Australia

- Demand exceeds local supply
- Cooper Energy's gas hubs deliver flexible supply to south-east Australia
- Proximity to market a key competitive advantage:
  - ✓ low transport costs
  - less fugitive emissions
  - smaller carbon footprint
  - ✓ local content

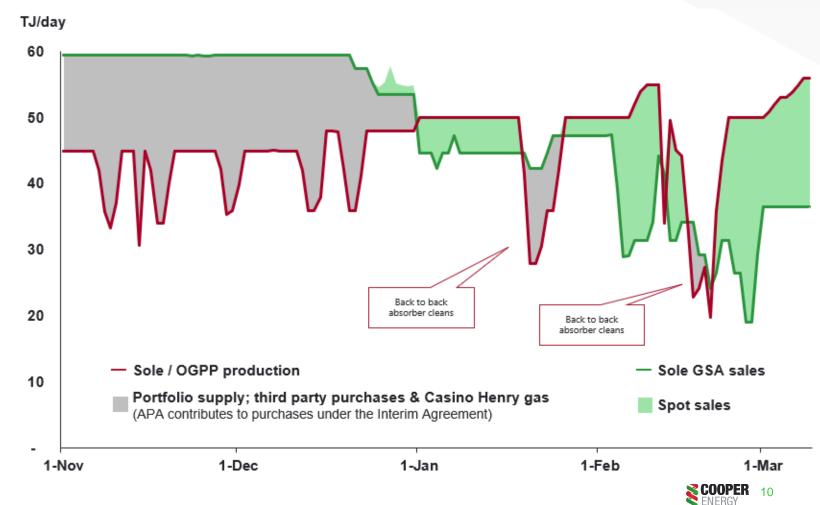
#### 2021 South east Australia demand by state and supply by basin



## Gippsland Basin gas hub - balanced production and sales

Improving OGPP processing rates + managed GSA<sup>1</sup> reshape reduced MDQ<sup>2</sup> from 1 January 2022

- √ 100% customer gas nominations met
- Ongoing OGPP optimisation of process parameters
- ✓ GSA¹ reshape with AGL reduced maximum daily quantity from Sole GSAs to 47.7 TJ/d during 2022 from 59.7 TJ/d during 2021
- ✓ Reduced need for backup gas supply from 1 January
- >0.6 PJ spot market sales since 1 January
- Average spot prices increasing year on year



<sup>1.</sup> Gas Sales Agreement

# Gippsland Basin gas hub

Prolific hydrocarbon basin connected and close to south-eastern markets

- 100% Cooper Energy ownership of all permits
- Recent performance improvement
- APA undertaking work to further increase rates
- Production, appraisal and exploration opportunities
- Manta appraisal and Manta Deep exploration
- New material exploration play from deeper prospects

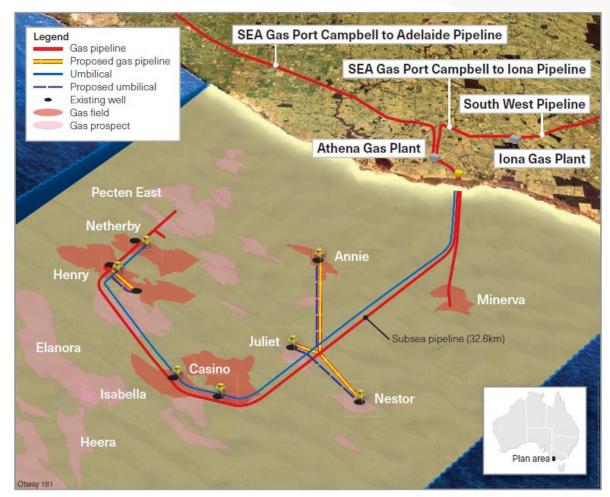


Eastern Gas Pipeline Orbost Gas Plant Patricia-Baleen Gas Field Patricia-Baleen Pipeline and Umbilical (25km) Longtom Sole Gas Pipeline and Umbilical (65km) Patricia-Baleen (35km) Manta Gas Field Two well subsea tieback (130m water depth) Basker Oil Field Legend Manta Electrical Umbilical to Sole (33km) Existing pipeline Sole Gas Field Future pipeline Two well subsea tieback Existing umbilical (water depth 125m) Future umbilical

### **Otway Basin gas hub**

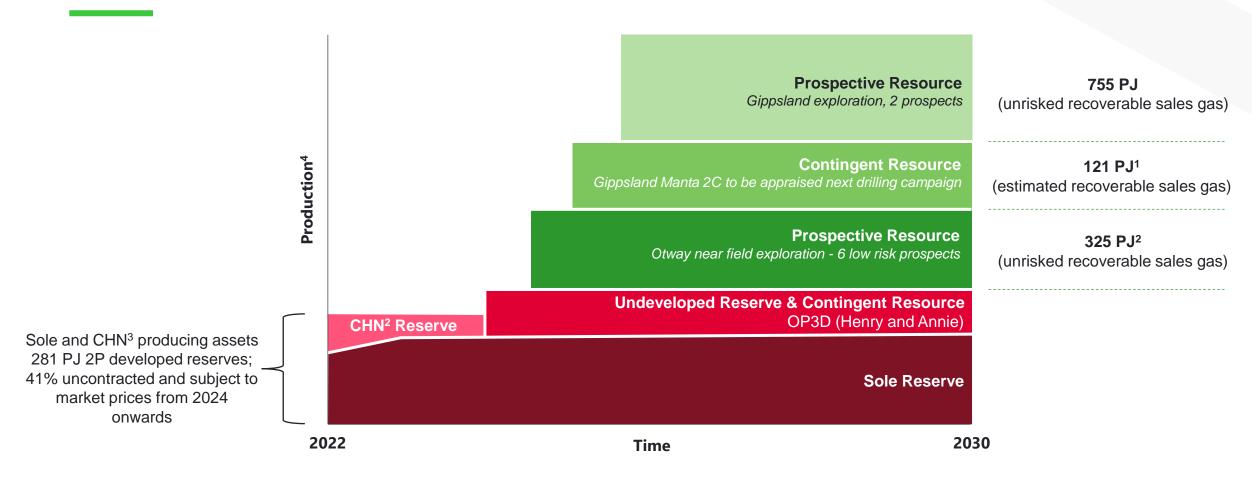
Integrated operation, growing gas supply and free cash flow with high quality prospects

- ✓ Proven cost competitive hydrocarbon basin connected to southeastern markets
- ✓ Athena Gas Plant returned to service in Q2 FY22
  - low-cost, owned and operated gas processing infrastructure
  - > ~150 TJ/day gas processing capacity
  - significant economies of scale from increasing gas throughput
- ✓ Significant potential for bringing new gas supply online
  - Otway Phase 3 Development (OP3D)
  - seismic amplitude supported (low-risk) exploration prospects adjacent to existing production infrastructure
  - new reprocessed 3D seismic data has improved quality of prospect interpretation
  - aggregated prospective resource estimate of six amplitude supported exploration prospects is 585 Bcf (Gross mean estimate)<sup>1</sup>



## **Future growth potential**

High value growth pipeline - producing, development and exploration prospects via two gas hubs



<sup>1.</sup> Stated reserves and resources as at 30 June 2021, refer to Reserves and Contingent Resources as 30 June 2021 announced to the ASX on 23 August 2021

<sup>2.</sup> Refer Otway Basin Exploration Prospective Resource Update announced to the ASX on 9 February 2022

<sup>3.</sup> Casino, Henry and Netherby

<sup>4.</sup> Profiles are indicative

## Wrap up

#### Cooper Energy is ideally positioned to deliver sustained growth

- ✓ Base existing business (~70 TJ/day, COE share) with increasing production and margin
- ✓ Increasing long-term cash flows underpinned by balance of term gas sales agreements with blue chip customers and spot gas sales
- ✓ Robust gas market fundamentals with increasing supply deficits forecast.
  - increasing influence of international LNG prices
- ✓ Twin gas hubs provide flexibility of supply close to customer delivery points
- ✓ Development and exploration projects advancing to continue growth trajectory
- ✓ Offshore Otway exploration prospectivity high graded with low-risk drill ready prospects close to existing pipeline tie in points

# Q & A



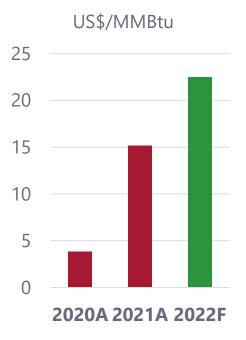
Shad Patterson David Maxwell Athena Gas Plant



# **Average annual spot prices**

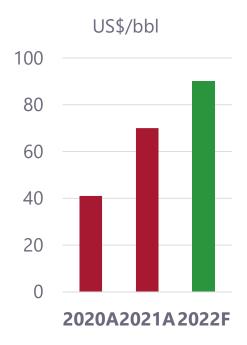


**JKM LNG** 



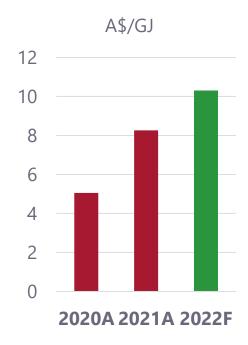


Oil



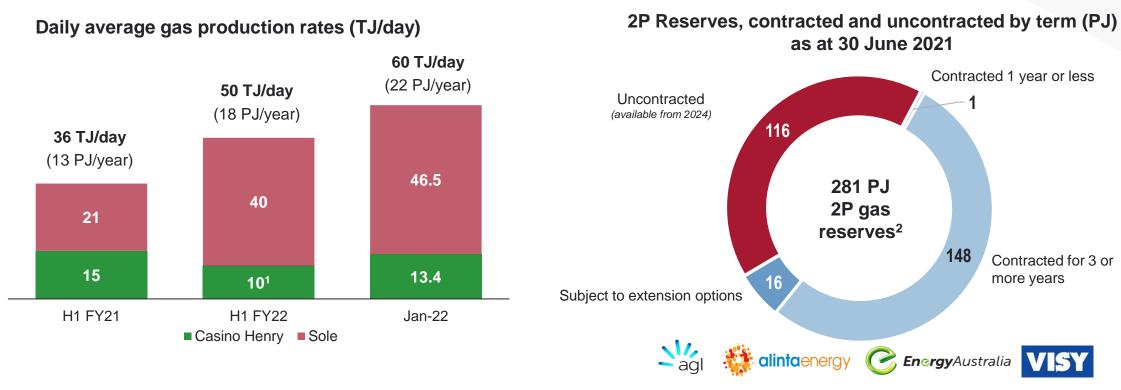


## **Victoria Spot Gas**



## Step-change in total gas production and sales volumes

OGPP improvements and AGP now online provides stability and enables future growth



- Production growth provides greater gas portfolio flexibility from multiple delivery points and reduced requirement for backup arrangements
- 41% of 2P reserves uncontacted
- Balanced portfolio of contracted and uncontracted gas with exposure to increasing gas prices

#### **Headline financial metrics**

#### Impressive half-on-half improvement across all metrics

| \$ million unless indicated        | H1 FY22   | H1 FY21   | Change        |
|------------------------------------|-----------|-----------|---------------|
| Production (MMboe)                 | 1.57      | 1.20      | <b>▲</b> 31%  |
| Sales volumes (MMboe)              | 2.02      | 1.21      | <b>▲</b> 67%  |
| Sales revenue                      | 95.4      | 48.6      | ▲ 96%         |
| Average realised gas price (\$/GJ) | 7.44      | 6.35      | <b>▲</b> 17%  |
| Underlying EBITDAX                 | 25.5      | 9.7       | <b>▲</b> 163% |
| Statutory net loss after tax       | (5.9)     | (23.1)    | <b>▲</b> 74%  |
| Underlying net loss after tax      | (6.0)     | (17.4)    | <b>▲</b> 66%  |
| Operating cash flow                | 28.0      | 6.7       | ▲ 318%        |
| Capital expenditure                | 11.6      | 17.0      | ▼ 32%         |
| \$ million                         | 31-Dec-21 | 30-Jun-21 | Change        |
| Cash and cash equivalents          | 92.2      | 91.3      | <b>1</b> %    |
| Drawn debt                         | 204.0     | 218.0     | ▼ 6%          |
| Net debt                           | (111.8)   | (126.7)   | ▼ 12%         |

- Gas revenue increased 103% to \$88.8 million from commencement of Sole GSAs<sup>1</sup> and increased Sole production
- Oil and condensate revenue increased 34% to \$6.6 million due to higher pricing, offset by lower production
- 2.7 PJs of third-party gas purchases at cost of \$19.6 million (\$7.26/GJ and net of APA's contribution) incurred in H1 FY22 as back-up supply to fulfill Sole GSAs; expect to be significantly reduced from January 2022
- PRRT expense down 82% to \$1.1 million due to lower Casino Henry realised gas prices and AGP tie-in works
- Capital expenditure down 32% to \$11.6 million due to completion of Athena Gas Plant upgrade and tie-in
- OGPP reconfiguration and commissioning costs of \$6.3 million incurred for H1 FY22
- Guidance for FY22 remains unchanged refer slide 26



# Reserves and Contingent Resources at 30 June 2021

| 1P (Proved)           |        |       |           | 2P (Proved & Probable) |        |       |           | 3P (Proved, Probable & Possible) |        |       |           |       |       |
|-----------------------|--------|-------|-----------|------------------------|--------|-------|-----------|----------------------------------|--------|-------|-----------|-------|-------|
| Reserves <sup>1</sup> | Cooper | Otway | Gippsland | Total                  | Cooper | Otway | Gippsland | Total                            | Cooper | Otway | Gippsland | Total |       |
| Developed             |        |       |           |                        |        |       |           |                                  |        |       |           |       |       |
| Sales gas             | PJ     | _     | 6.7       | 164.3                  | 171.1  | _     | 11.2      | 226.8                            | 238.0  | _     | 14.1      | 309.3 | 323.4 |
| Oil and condensate    | MMbbl  | 0.5   | 0.0       | -                      | 0.5    | 1.1   | 0.0       | _                                | 1.1    | 1.5   | 0.0       | -     | 1.5   |
| Developed total       | MMboe  | 0.5   | 1.1       | 26.9                   | 28.4   | 1.1   | 1.8       | 37.1                             | 40.0   | 1.5   | 2.3       | 50.5  | 54.4  |
| Undeveloped           |        |       |           |                        |        |       |           |                                  |        |       |           |       |       |
| Sales gas             | PJ     | -     | 29.9      | _                      | 29.9   | _     | 43.2      | _                                | 43.2   | _     | 56.5      | _     | 56.5  |
| Oil and condensate    | MMbbl  | 0.0   | 0.0       | _                      | 0.0    | 0.0   | 0.0       | _                                | 0.1    | 0.1   | 0.0       | _     | 0.1   |
| Undeveloped total     | MMboe  | 0.0   | 4.9       | _                      | 4.9    | 0.0   | 7.1       | _                                | 7.1    | 0.1   | 9.3       | _     | 9.3   |
| Total                 | MMboe  | 0.5   | 6.0       | 26.9                   | 33.4   | 1.1   | 8.9       | 37.1                             | 47.1   | 1.6   | 11.6      | 50.5  | 63.7  |

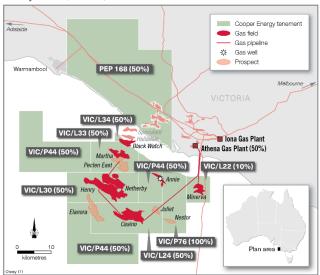
<sup>1.</sup> Reserves were announced to the ASX on 23 August 2021. Totals may not reflect arithmetic addition due to rounding. The method of aggregation is by arithmetic sum by category. As a result, the 1P estimates may be conservative and the 3P estimates may be optimistic due to the effects of arithmetic summation. The Reserves exclude Cooper Energy's share of future fuel usage. The conversion factor of 1 PJ = 0.163 million boe has been used to convert from Sales Gas (PJ) to Oil Equivalent (million boe). The Reserves information displayed should be read in conjunction with the information provided in the Notes on calculation of Reserves and Contingent Resources provided on the following slide.

| 0.00                              |       | 1C            |       |       | 2C            |       |       | 3C            |       |  |  |
|-----------------------------------|-------|---------------|-------|-------|---------------|-------|-------|---------------|-------|--|--|
| Contingent Resources <sup>1</sup> | Gas   | Oil and cond. | Total | Gas   | Oil and cond. | Total | Gas   | Oil and cond. | Total |  |  |
| Resources                         | PJ    | MMbbl         | MMboe | PJ    | MMbbl         | MMboe | PJ    | MMbbl         | MMboe |  |  |
| Gippsland Basin                   | 83.1  | 2.2           | 15.8  | 134.9 | 3.4           | 25.4  | 212.3 | 5.4           | 40.1  |  |  |
| Otway Basin                       | 32.3  | 0.03          | 5.3   | 48.6  | 0.07          | 8.0   | 63.2  | 0.11          | 10.4  |  |  |
| Cooper Basin                      | -     | 0.3           | 0.3   | -     | 0.5           | 0.5   | -     | 0.9           | 0.9   |  |  |
| Total                             | 115.3 | 2.5           | 21.4  | 183.5 | 4.0           | 33.9  | 275.5 | 6.4           | 51.4  |  |  |

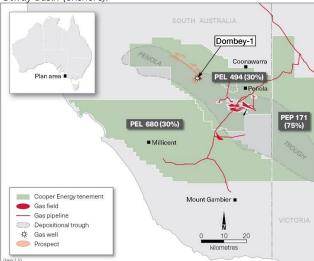
<sup>1.</sup> Contingent Resources were announced to the ASX on 23 August 2021. Totals may not reflect arithmetic addition due to rounding. The method of aggregation is by arithmetic sum by category. As a result, the 1C estimate may be conservative and the 3C estimate may be optimistic due to the effects of arithmetic summation. The conversion factor of 1 PJ = 0.163 million boe has been used to convert from Sales Gas (PJ) to Oil Equivalent (million boe). The Contingent Resources information displayed should be read in conjunction with the information provided in the Notes on calculation of Reserves and Contingent Resources provided on the following slide.

# Cooper Energy tenements<sup>1</sup>

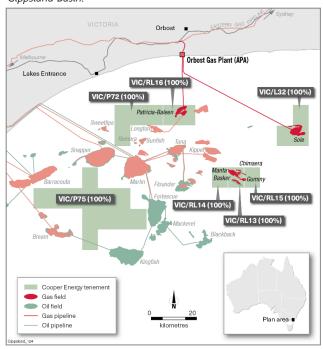
#### Otway Basin (Victoria):



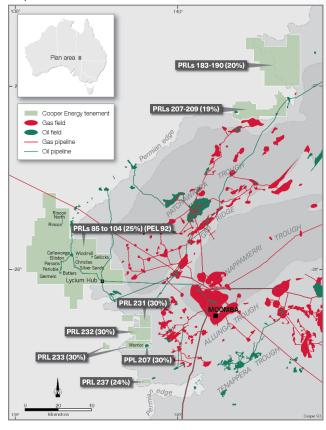
#### Otway Basin (onshore):



#### Gippsland Basin:



#### Cooper Basin:



# **Abbreviations**

| \$            | Australian dollars                               |
|---------------|--|
| APA           | APA Group (ASX: APA)                             |
| bbl           | Barrels  |
| Bcf           | Billion cubic feet of gas                        |
| bopd          | Barrels of oil per day                           |
| Cooper Energy | Cooper Energy Limited ABN 93 096 170 295         |
| FEED          | Front End Engineering and Design                 |
| FID           | Final Investment Decision                        |
| GSA           | Gas Sales Agreement                              |
| kbbl          | Thousand barrels                                 |
| km            | Kilometres                                       |
| m             | Metres   |
| MMboe         | Million barrels of oil equivalent                |
| MMscf/day     | Million standard cubic feet of gas per day       |
| n/m           | Not meaningful                                   |
| NOPTA         | National Offshore Petroleum Titles Administrator |
| OGPP          | Orbost Gas Processing Plant                      |
| PEL           | Petroleum Exploration Licence                    |
| PEP           | Petroleum Exploration Permit                     |
| PJ            | Petajoules                                       |
|               |  |

| PPL | Petroleum Production Licence |
|-----|------------------------------|
| PRL | Petroleum Retention Lease    |
| scf | Standard cubic feet of gas   |
| TJ  | Terajoules                   |
| YTD | Year to date                 |