



Investor pack update

13 June 2017

# Important Notice – Disclaimer and other information

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## **The information in this presentation:**

- Is not an offer or recommendation to purchase or subscribe for shares in Cooper Energy Limited or to retain or sell any shares that are currently held.
- Does not take into account the individual investment objectives or the financial situation of investors.
- Was prepared with due care and attention and is current at the date of the presentation.

Actual results may materially vary from any forecasts (where applicable) in this presentation.

Before making or varying any investment in shares of Cooper Energy Limited, all investors should consider the appropriateness of that investment in light of their individual investment objectives and financial situation and should seek their own independent professional advice.

## **Qualified petroleum reserves and resources evaluator**

This report contains information on petroleum reserves and resources which is based on and fairly represents information and supporting documentation reviewed by Mr Andrew Thomas who is a full time employee of Cooper Energy Limited holding the position of General Manager Exploration & Subsurface, who holds a Bachelor of Science (Hons), is a member of the American Association of Petroleum Geologists and the Society of Petroleum Engineers and 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.

## **Rounding**

All numbers in this presentation have been rounded. As a result, some total figures may differ insignificantly from totals obtained from arithmetic addition of the rounded numbers presented.

## **Reserves and resources calculation**

Information on the company's reserves and resources and their calculation are provided in the appendices to this presentation.

## **Currency**

All financial information is expressed in Australian dollars unless otherwise specified

# An introduction

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**Cooper Energy** develops and supplies gas to south-east Australia and produces oil from the Cooper Basin.

Since 2012 the company has executed a strategy to build a portfolio-style gas business focused on opportunities foreseen emerging in south-east Australia.

The cornerstone assets are in place. Production, revenue and reserves are growing rapidly from existing assets and projects.

## Cash generating production

- FY17 production: 1 MMboe
- Gas production: 8 PJ in CY17

## Key player in gas for south east Australia

- Otway Basin production
- 227 PJ of uncontracted gas
- Sole gas project
- Manta gas project
- Blue chip customers

## Six year growth profile

- Existing assets & projects

## Near and medium term catalysts

- Sole project debt funding
- Reserves uplift
- Contracting of uncontracted gas
- Exploration

# Cooper Energy re-cap....

## The last six months:

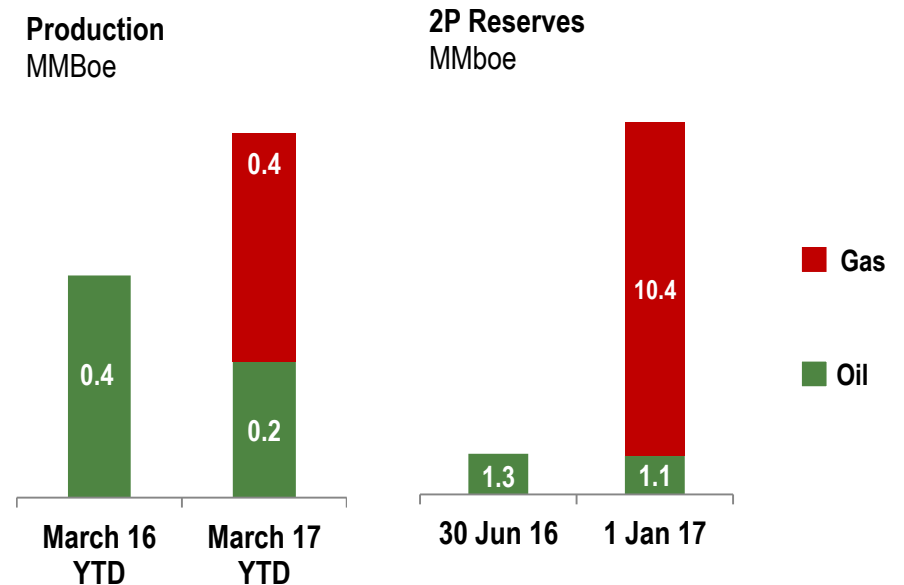
- ✓ Acquired Santos Victorian gas assets
- ✓ Signed gas supply agreements with AGL, Energy Australia, Alinta Energy
- ✓ Approved Sole gas project as “Ready to Proceed”
- ✓ Long lead items contracted for Sole gas project
- ✓ Agreement with APA Group on plant ownership and operation for Sole Gas Project
- ✓ Completed 2 capital raisings for \$213 million:
  - Santos gas asset acquisition
  - \$151 million equity for Sole gas project

## Right now:

- Producing gas from Otway Basin
- Sole debt funding in progress
- Obtaining regulatory approval for appointment as Operator of Gippsland and Otway oil assets
- Commenced shore crossing work for Sole gas project
- Successful drilling in Cooper Basin

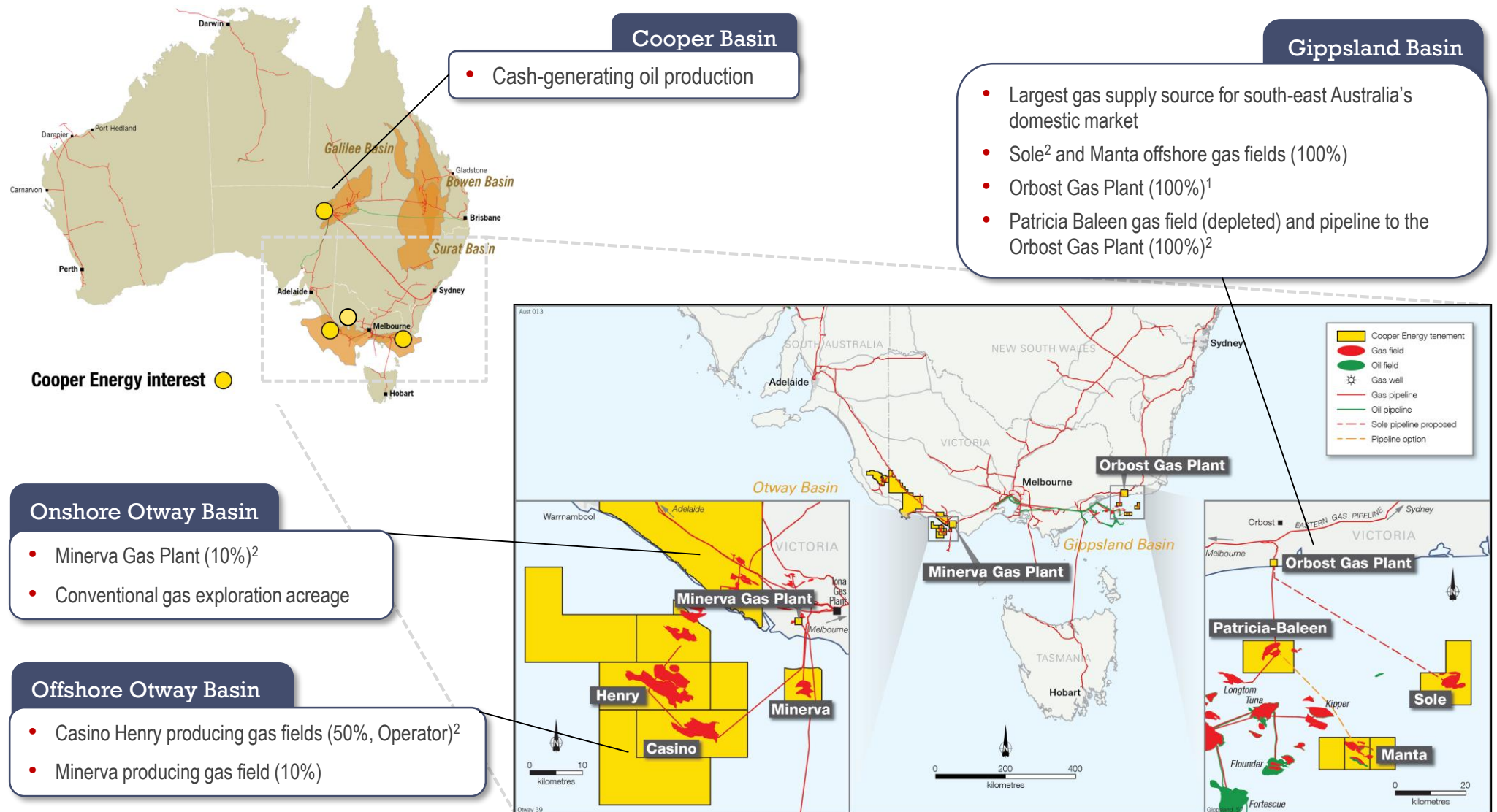
## The next 6 months:

- “Sole Unconditional” & financial close
- 43 MMboe reserve uplift as Sole gas added to 2P reserves
- New gas contracts at today's prices for Otway Basin gas



# Asset portfolio: strategic position

Market driven portfolio, combining cost competitive assets with blue-chip contracts



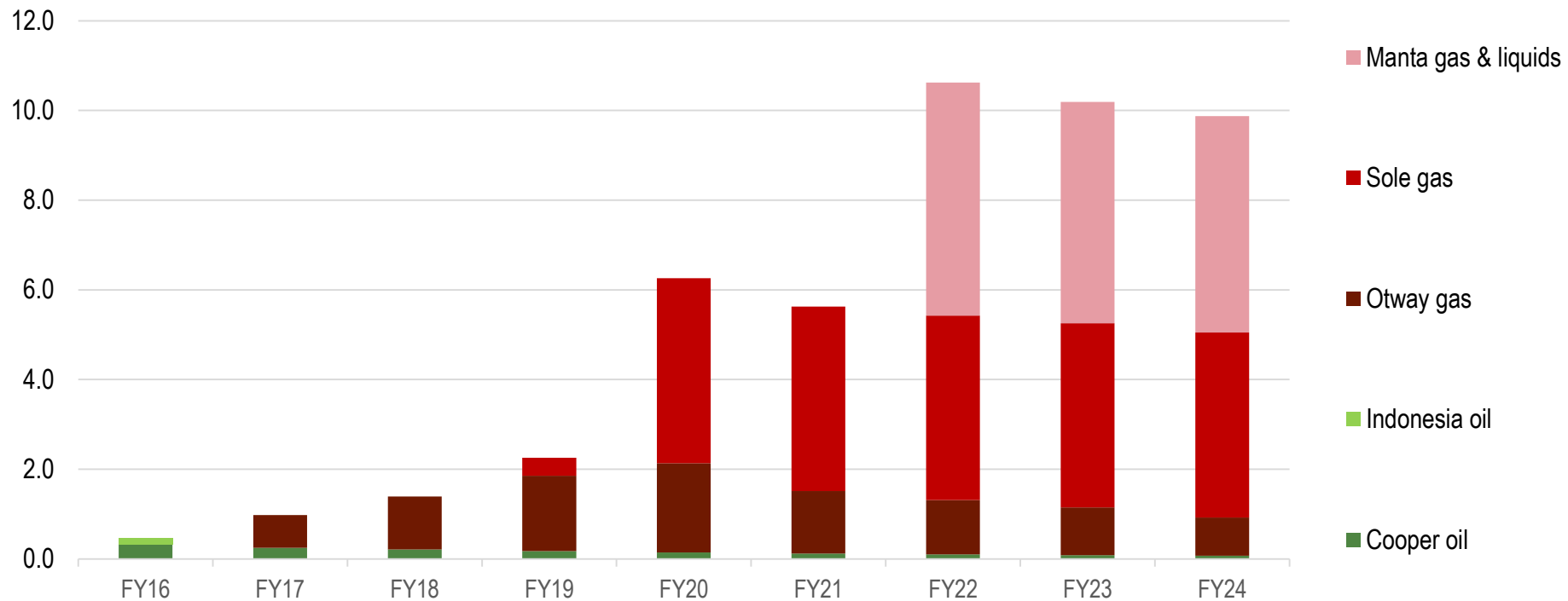
<sup>1</sup> To be acquired by APA under agreement announced 1 June 2017

<sup>2</sup> Transfer of title and operatorship for the relevant assets remains subject to regulatory approval

# Production profile from existing assets and projects

Gas production from current assets has capacity to drive 6 year, 20 times, production uplift

Cooper Energy total production: gas and oil  
MMboe



- New assets and current projects profile generates:

- FY17 production >2x FY16 production
- FY19 production >6x FY16 production
- FY22 production >20x FY16 production

- Otway gas includes; Minerva to deplete; Casino Henry to increase in 2019 after Henry-3 development well
- Sole project underway to commence c June 2019 subject to completion of finance and conditions
- Manta subject to Manta-3 and FID
- Cooper Energy to consider sell down of Sole and Manta interests from current 100% stake



# Otway Basin

## Cash generating gas production, upside opportunities in marketing, development & exploration

### Key Assets

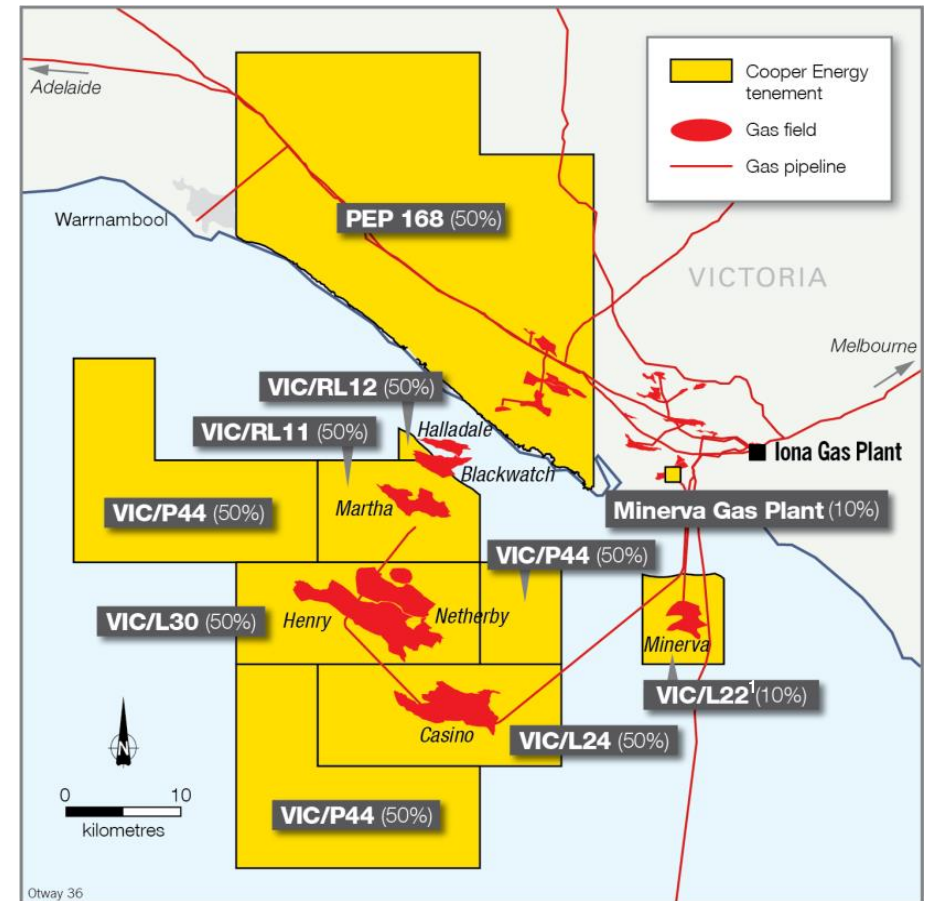
- Casino Henry gas project (50%<sup>1</sup>)
- Minerva gas field and plant (10% interest)
- VIC/P44 exploration permit

### Production (COE share, effective from 1 January 2017)

- Casino Henry (VIC/RL11 & 12): 7 PJ pa, supplied to EnergyAustralia under contract expiring March 2018
- Minerva (VIC/L22): ~ 1 PJ pa (approaching depletion)

### Plans

- Preparation for operatorship transfer, planned for June – July 2017
- Marketing of uncontracted gas available for sale from March 2018
- Currently negotiating Casino Henry processing from March 2018
- Casino Henry development well Henry-3 planned for FY19, subject to JV approval



<sup>1</sup> Transfer of title and operatorship for the relevant assets remains subject to regulatory approval

# Gippsland Basin

## Cost competitive resource, existing plant and production planned for FY19

### Sole Gas Project (VIC L/32, COE:100%, Operator<sup>1</sup>)

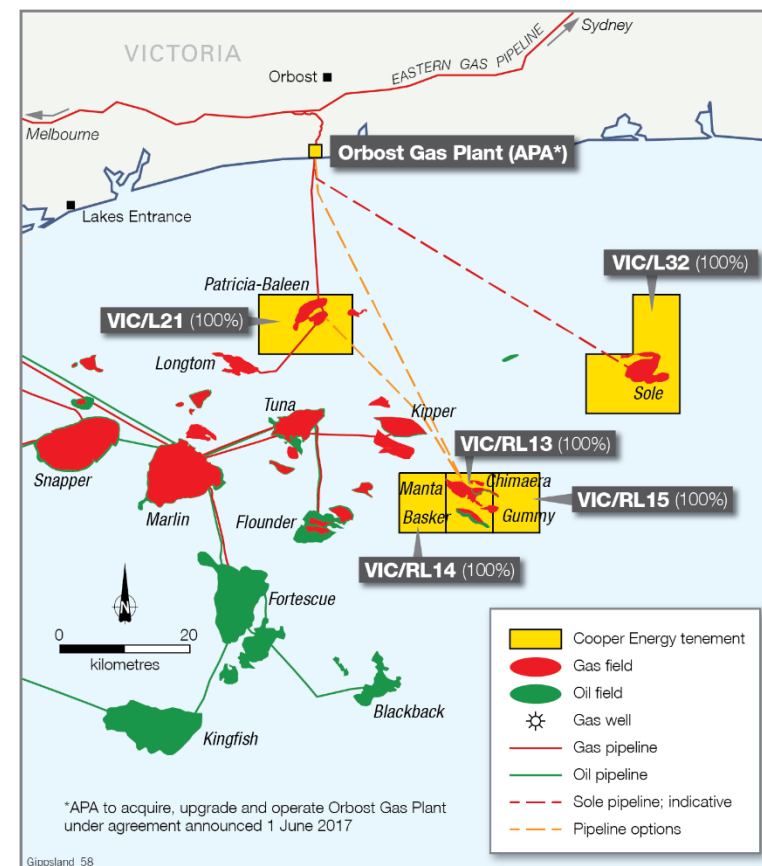
- 249 PJ 2C Contingent Resource<sup>2</sup>
- 20 PJ pa contracted: gas contracts with O-I Australia, AGL Energy, Alinta Energy EnergyAustralia
- Finalising debt finance
- Sole gas into Orbost Gas Plant by March 2019

### Manta (VIC RL/13,14,15; COE 100%)

- 106 PJ 2C Contingent Resource plus 3 million barrels liquids<sup>1</sup>
- Economic business case identified, subject to appraisal
- Provision for processing at Orbost Gas Plant under existing agreement with APA<sup>3</sup>
- Prospective resource upside to be tested & appraisal well expected FY19

### Patricia-Baleen (VIC/L21: COE 100%<sup>1</sup>)

- Non-operating field, shut in
- Strategic significance as access point for Orbost Gas Plant for other fields



<sup>1</sup>Transfer of title in respect of 50% interest in Sole and 100% of Patricia Baleen and Operatorship remains subject to regulatory approval.

<sup>2</sup> Reserves and Contingent Resources at 1 January 2017 were announced to the ASX on 27 February 2017 and an announcement on Manta Contingent Resource was announced on 16 July 2015. The resources information displayed should be read in conjunction with the information provided on the calculation of Reserves and Contingent Resources provided on page 27. Cooper Energy is not aware of any new information or data that materially affects the information provided in those releases and all material assumptions and technical parameters underpinning the assessment provided in the announcement continues to apply.

<sup>3</sup> Pursuant to agreement announced 1 June 2017, subject to Sole FID



# Sole gas project

New supply for south-east Australia with blue chip customers & uncontracted gas

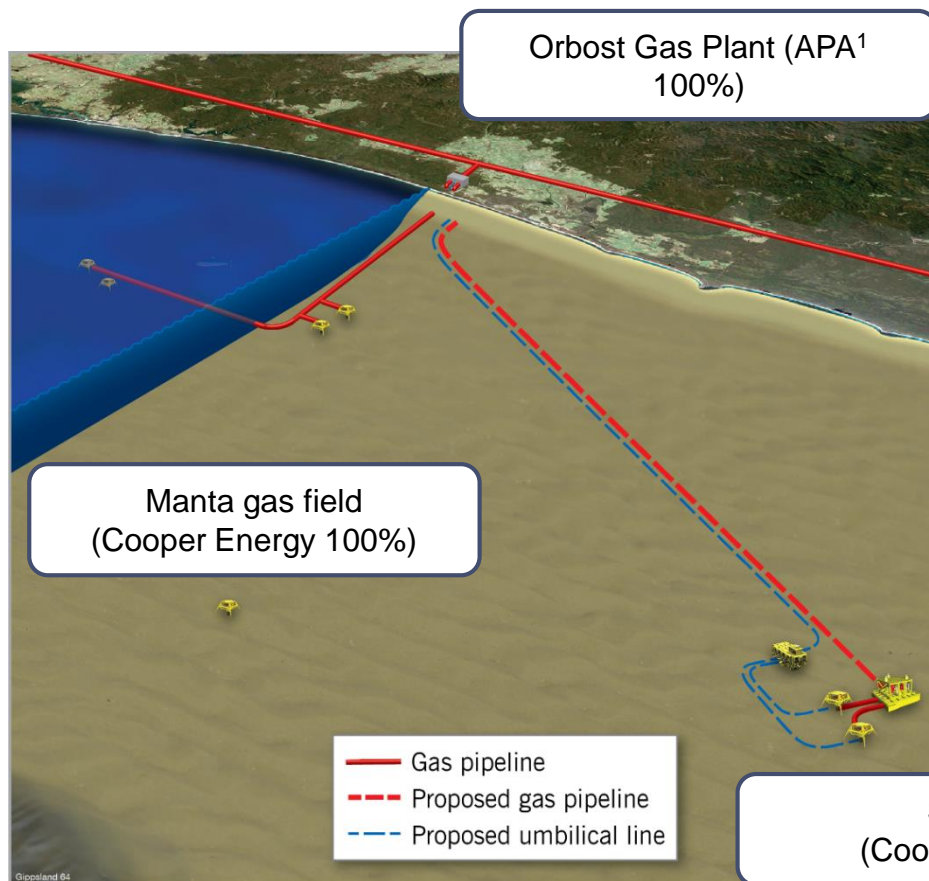
## Midstream:



Agreement executed 1/6/2017

APA to buy Orbest Gas Plant and

- undertake \$250 million plant upgrade to process Sole gas
- operate Orbest Gas Plant to process Sole gas under agreed tariff for supply to Cooper Energy customers
- provision for Manta and other gas



## Upstream:



- 249 PJ gas
- Ready to proceed: March '17
- Sole gas into plant: March '19
- \$355 million capex and c 60% lump sum contract
- To supply: ~24 PJ pa

## Enabling customers



EnergyAustralia



alintaenergy

<sup>1</sup>APA Agreement subject to conditions precedent as announced 1 June 2017.

<sup>2</sup> Reserves and Contingent Resources at 1 January 2017 were announced to the ASX on 27 February 2017 and an announcement on Manta Contingent Resource was announced on 16 July 2015. The resources information displayed should be read in conjunction with the information provided on the calculation of Reserves and Contingent Resources provided on page 27. Cooper Energy is not aware of any new information or data that materially affects the information provided in those releases and all material assumptions and technical parameters underpinning the assessment provided in the announcement continues to apply.

# Sole project recent developments and status

On schedule for first gas to Orbost Gas Plant March 2019

## Offshore Project

- ✓ Production licence awarded - VIC/L32
- ✓ Well equipment contracted
- ✓ Subsea pipeline and umbilical contract
- ✓ Rig contract signed
- Regulator approval for appointment as Operator

## Orbost Gas Plant

- ✓ Site works commenced
- ✓ Plant construction tenders received and under review
- ✓ APA Group agreements signed
- Conditional on debt finance and regulatory approvals

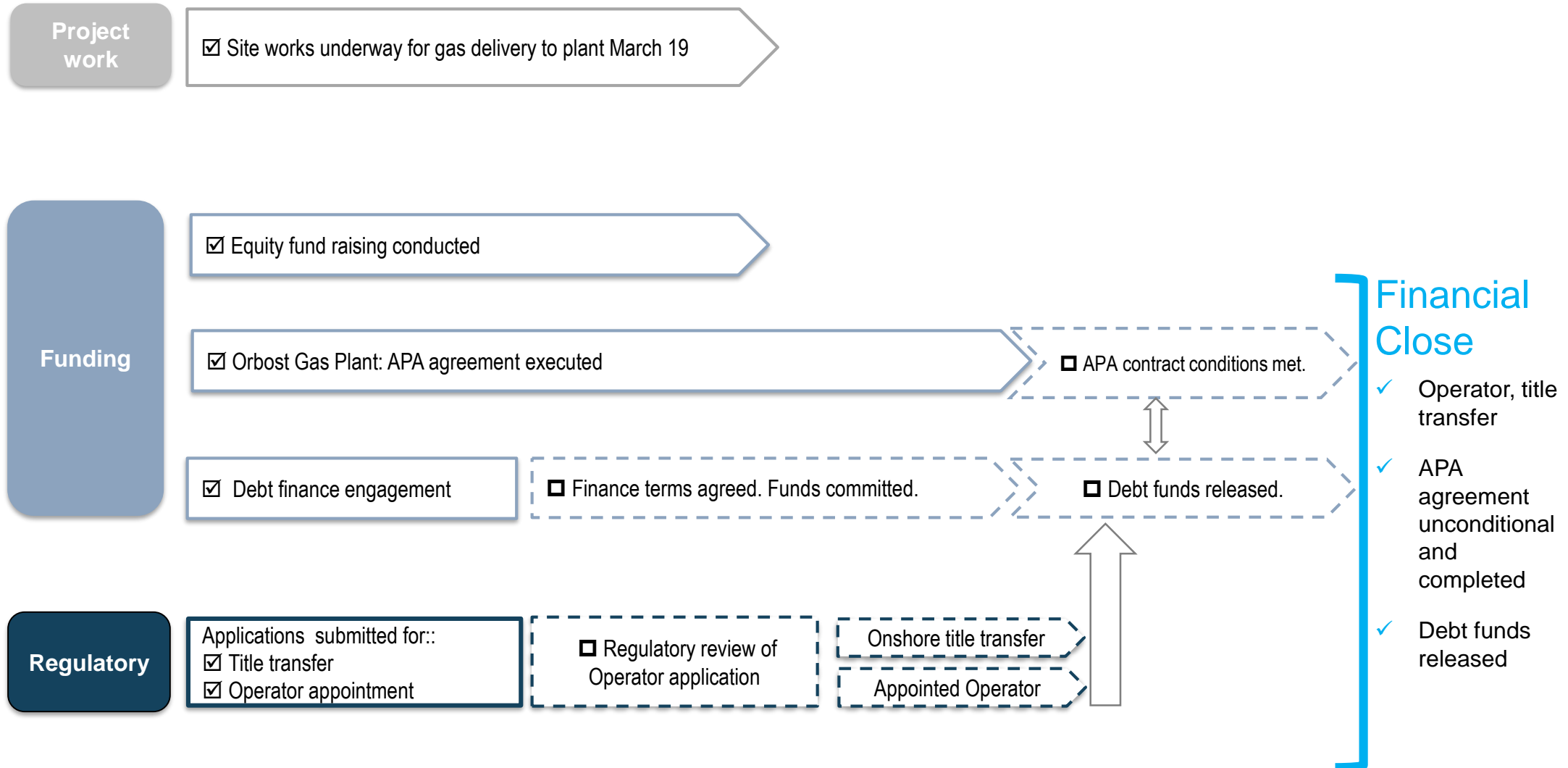
## Financing

- ✓ \$151 million capital raising completed
- Finalisation of debt financing arrangements
- Receipt of debt funds

- **Transactions conditions fulfilled**
- **Receipt of debt funds**
- **First gas into plant March '19**

# Sole project moving forward

Project work progressing. Milestones for financial close approaching.

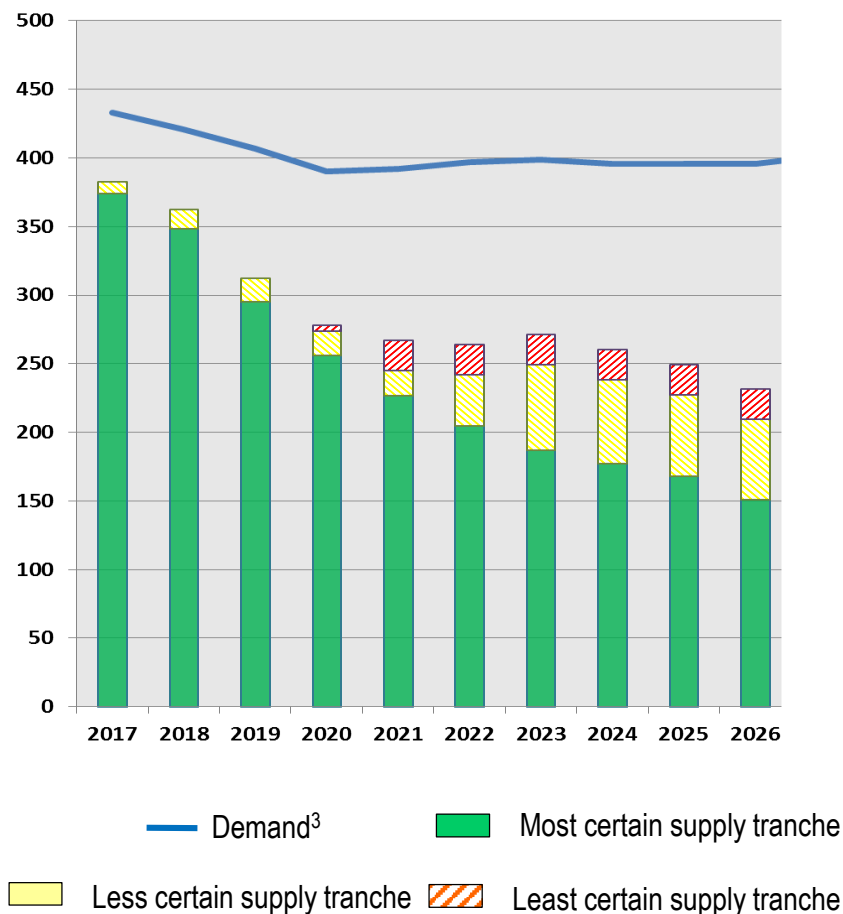


# South-east Australia<sup>1</sup> gas market outlook

## Forecast supply shortfalls and increasing gas prices

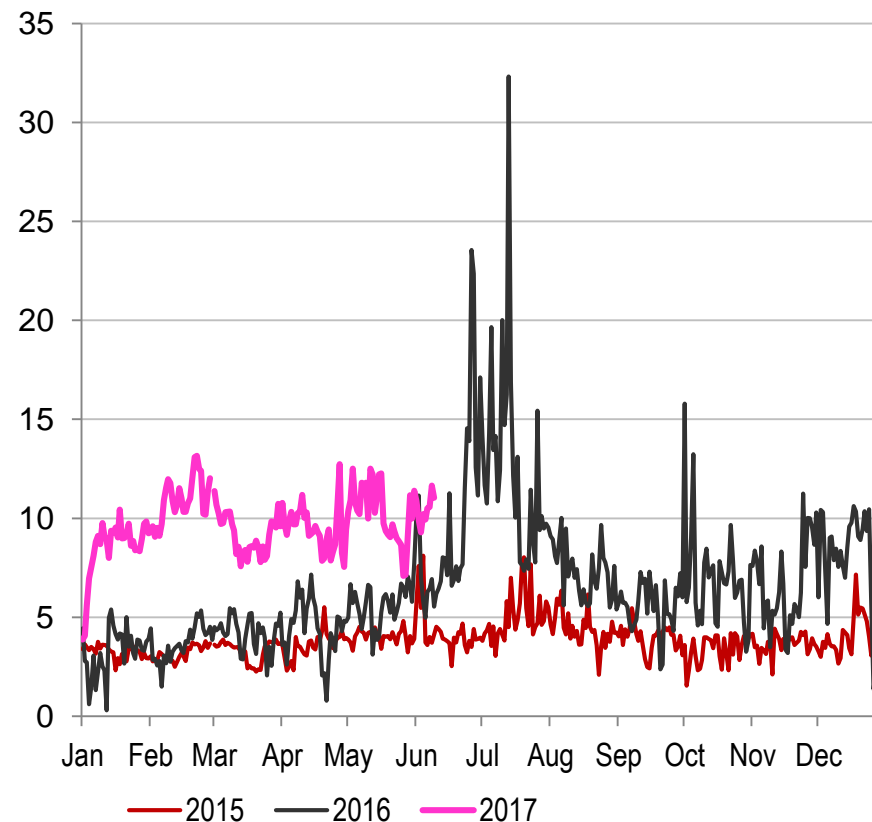
### Forecast<sup>2</sup> south-east Australian gas demand and supply

PJ pa



### Victorian Average Daily Wholesale Gas Price

\$/GJ



Note: Chart developed by Cooper Energy using data published by the Australian Energy Market Operator (AEMO)



<sup>1</sup>South-east Australia comprises New South Wales, Victoria, South Australia and Tasmania.

<sup>2</sup> EnergyQuest Quarterly June 2017

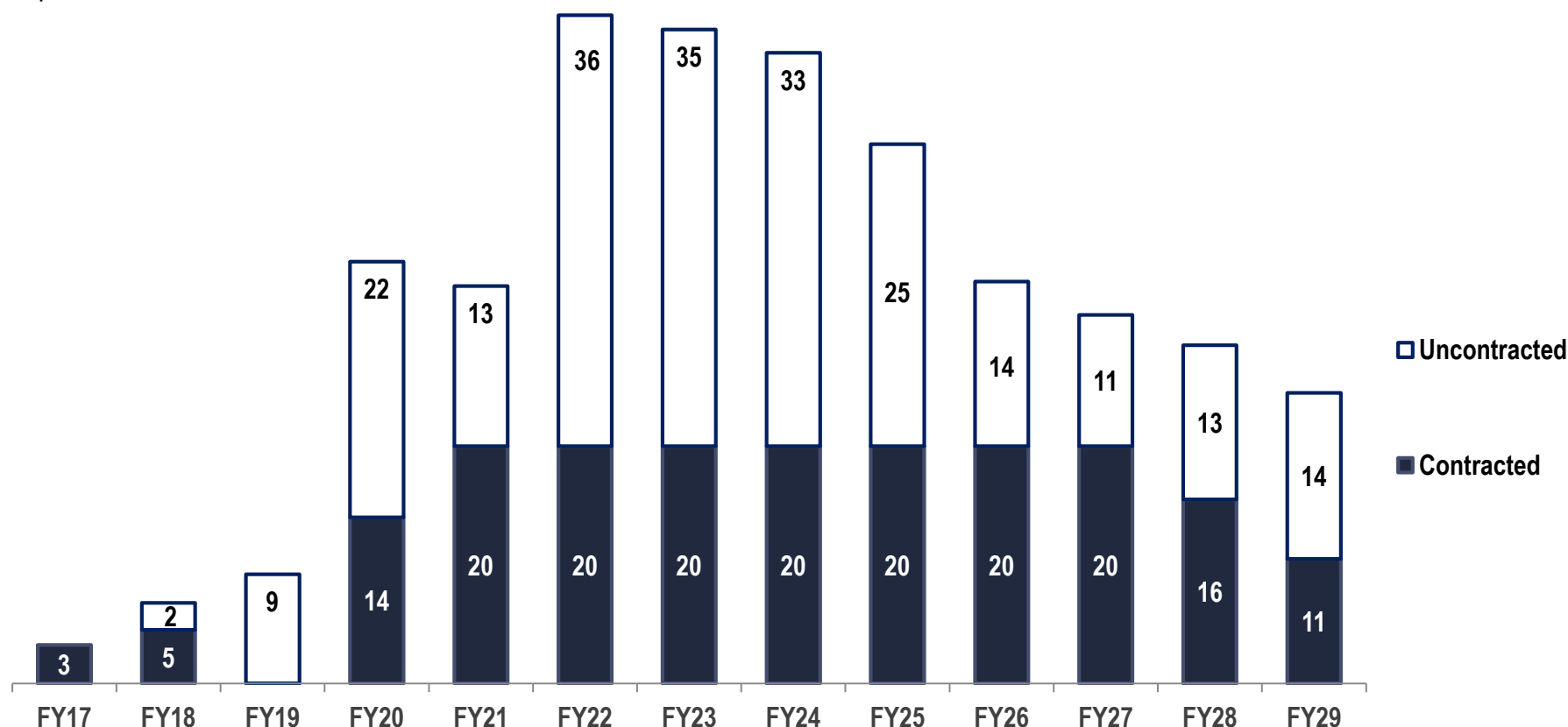
<sup>3</sup> Gas demand for New South Wales, Victoria, South Australia and Tasmania

# Profile of contracted and uncontracted gas (PJ)

227\* PJ uncommitted for contracting into south-east Australian energy market from 2018

## Gas production<sup>1</sup> from current assets: contracted & uncontracted

PJ pa



\* 227 PJ comprises 52 PJ 2P Casino Henry gas Reserves and 175 PJ uncontracted 2C Contingent Resource from Sole and Manta. Profile illustrated includes additional 10 PJ anticipated from Manta. Cooper Energy announced Sole Contingent Resources on 27 February 2017 and Manta Contingent Resource 16 July 2015. Cooper Energy is not aware of any new information or data that materially affects the information provided in those releases and all material assumptions and technical parameters underpinning the assessment provided in the announcement continues to apply.

<sup>1</sup> Assumes:

- Sole FID for March quarter 2019 first Sole gas to plant
- Manta 3 appraisal well
- Development well for Casino Henry ~2018/19
- Extension for majority of contracts

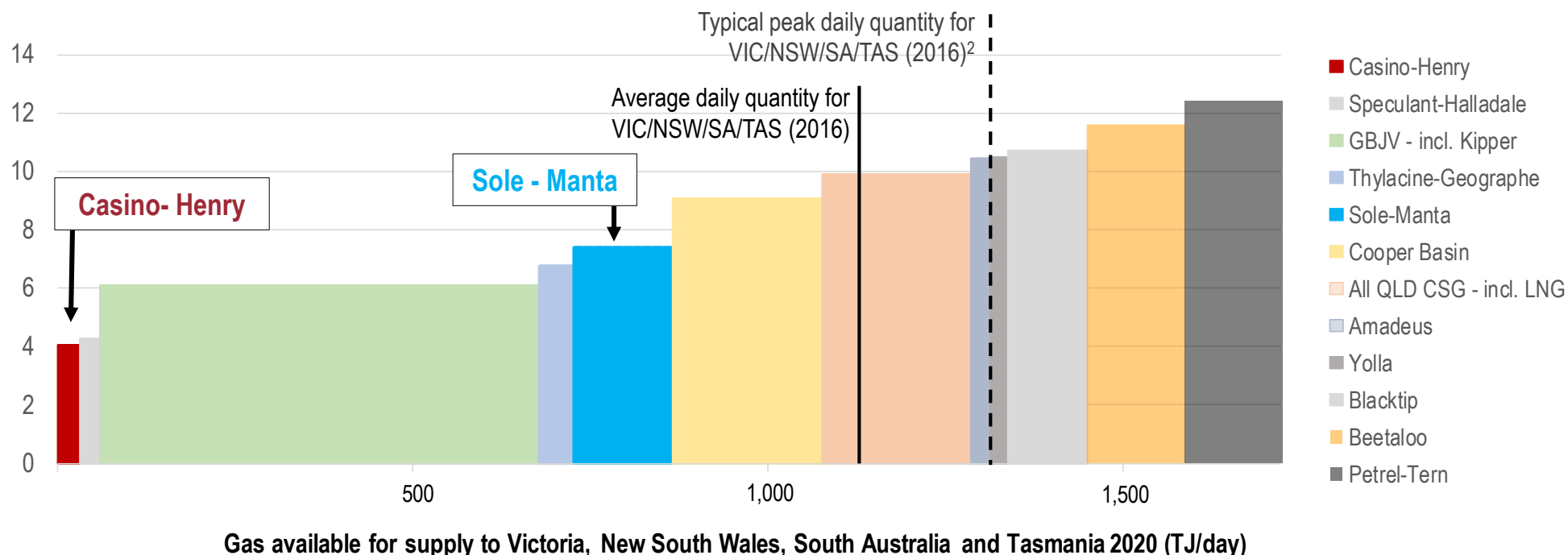
Note: Numbers rounded

# South-east Australia<sup>1</sup> gas supply costs in 2020\*

## Cooper Energy projects are cost competitive for south-east Australia

Delivered Melbourne city gate cost for gas from eastern Australia available for delivery to domestic market in 2020\*

AUD / GJ



\* Note: all estimates are as calculated by EnergyQuest and based on known capital expenditure to date, which may exceed cost to the current project owner(s).

Source: EnergyQuest

- Delivered Melbourne city gate gas cost in 2017 AUD based on economic upstream cost (including acceptable return) and pipeline charge
- Average daily volume determined by upstream reservoir & facilities capacity and taking account of pipeline capacities, from known gas reserves and resources with access to infrastructure and anticipated to be available in 2020/21
- Excludes gas that may be available from storage

<sup>1</sup> South-east Australia comprises New South Wales, Victoria, South Australia and Tasmania.

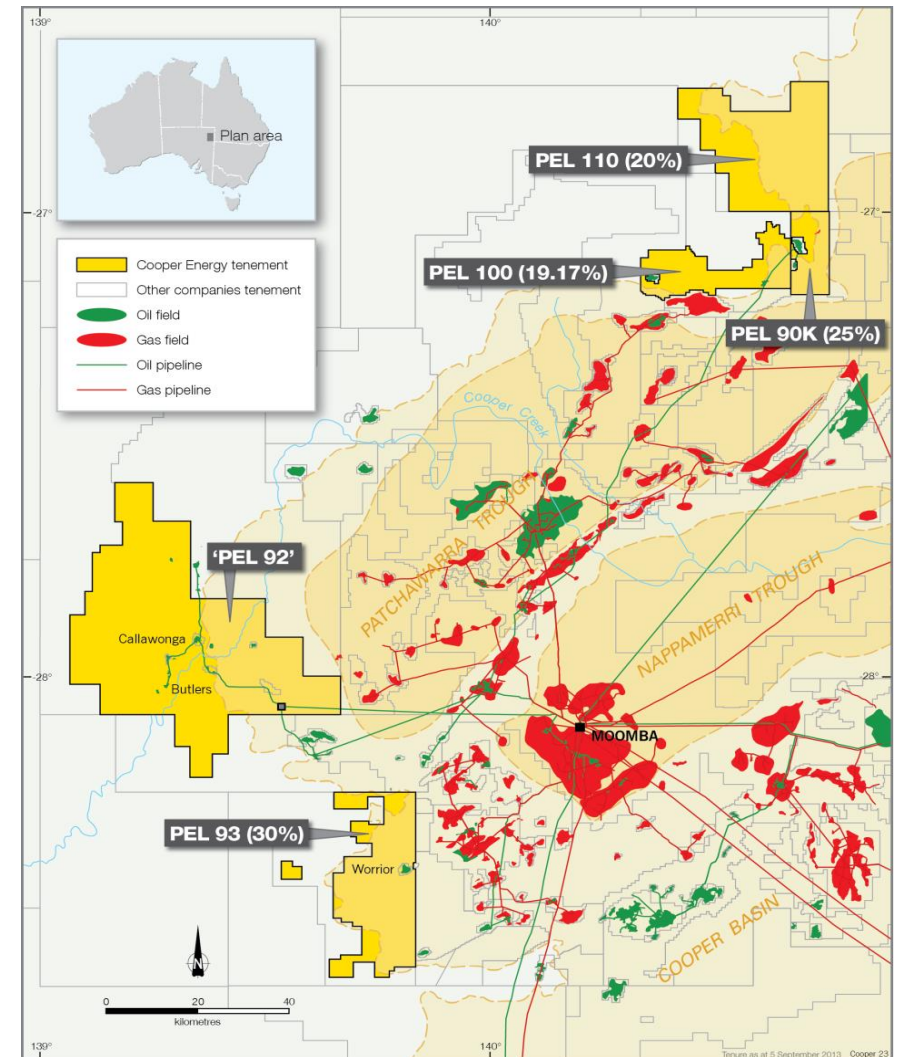
<sup>2</sup> Cooper Energy estimate. Represents 75% percentile of 2016 daily gas flows



# Cooper Basin

## Low cost cash generating oil production

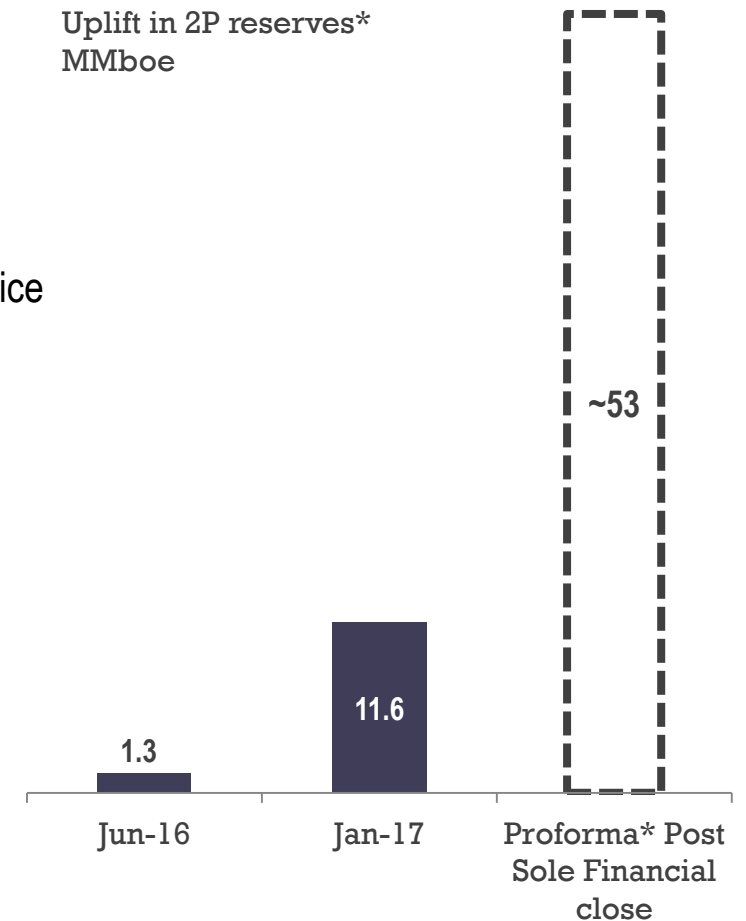
- March year to date production of 0.19 MMbbl vs 0.25 MMbbl in H1 FY16
- Production impacted by suspension of drilling in FY16
- Operating costs reduced to A\$29.78/bbl
- 5 well development/appraisal drilling program underway at Callawonga field quarter 2017 accessing Mckinlay Member oil
  - first 3 wells successful, 4th well spudded 7 June
- Producing interests:
  - PEL 92 JV: 25% interest (Beach Energy 75% & Operator)
  - PPL 207: 30% interest (Senex Energy 70% & Operator)
- Drilling results indicate incremental oil opportunity in producing fields
- Exploration plays with material opportunity remain



# Near term value catalysts

## Existing plans and projects underpin growth and value uplift in coming months

- 1 Sole:** finalisation of debt funding and receipt of funds
  - final milestone in project funding
  - triggers 43 MMboe uplift in 2P reserves
- 2 Uncontracted Otway gas**
  - contracting of gas to supply from March 2018
  - expect to secure new agreements in winter 2017, with market reflective price
- 3 Operatorships**
  - regulatory approval to be Operator in Gippsland and Otway
    - expected June -July
  - enables cost efficiencies and competitive advantage
- 4 Other**
  - reserves review post Cooper Basin PEL 92 drilling program
  - add a partner for Gippsland Basin portfolio - after Sole funding
  - Manta exploration



\* Australia only. Assumes commitment of Sole gas project, provides uplift of ~43 MMboe

# Wrap up

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## Gas strategy has delivered growth with further opportunities ahead

- 1 Gas strategy pieces falling into place:**  
An established gas producer with substantial uncommitted reserves ready to be contracted in a tight market.
- 2 Sole gas project debt financing conclusion:**  
Finalisation and receipt of debt financing, completion of plant sale agreement with APA Group.
- 3 227 PJ uncommitted gas has Cooper Energy positioned as a strong competitor for new contracts:**  
Casino Henry, Sole and Manta offer cost-competitive gas delivery for south-east Australia.
- 4 FY17 growth is the first step of larger and sustainable growth from existing assets and projects:**  
Reserves and production upgrades in the current year have started a 6 year growth trajectory offering > 20 times growth in production from existing assets and equities.
- 5 Milestones ahead:**  
Completion of Sole debt funding, reserves growth and gas contracting.



# Appendices

# Company snapshot

## Strong growth profile and balance sheet

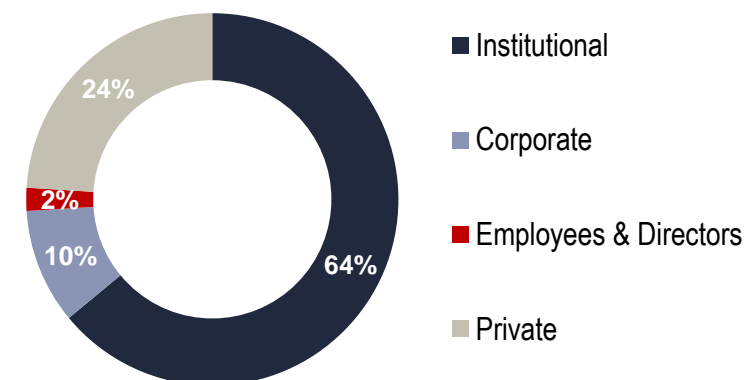
Cooper Energy is an independent Australian exploration and production company

- Listed in 2002, history of profitable operations and successful exploration and development
- Strong balance sheet, zero debt
- Management team and board experienced in growing resource companies
- Growth profile increases production 20 times extending over 6 years from existing assets

### Key figures

Shares on issue <sup>1</sup>	1,140.2 mill
Shareholders <sup>1</sup>	6,352
Market capitalisation <sup>1</sup>	\$400 mill
Debt	Nil
Current employees FTE	26.6

### Share register



# Business overview

Cash generation from oil base and gas assets, major upside in projects

## Gas production & sales



Otway Basin: Casino Henry & Minerva

Sales of ~7- 8 PJ pa to EnergyAustralia

Minerva gas plant

Production of 1.2 MMboe pa

## Oil exploration & production



Cooper Basin Western Flank

240,000 – 280,000 bbl pa

Operating cost: ~A\$30/bbl

High margin + exploration upside

## Gas projects & contracting



Gippsland and Otway Basins

Sole, Manta projects, Otway uncontracted gas

>400 PJ gas to be developed or uncontracted

Production uplift of c 10 MMboe<sup>1</sup> pa as projects come online on top of existing output

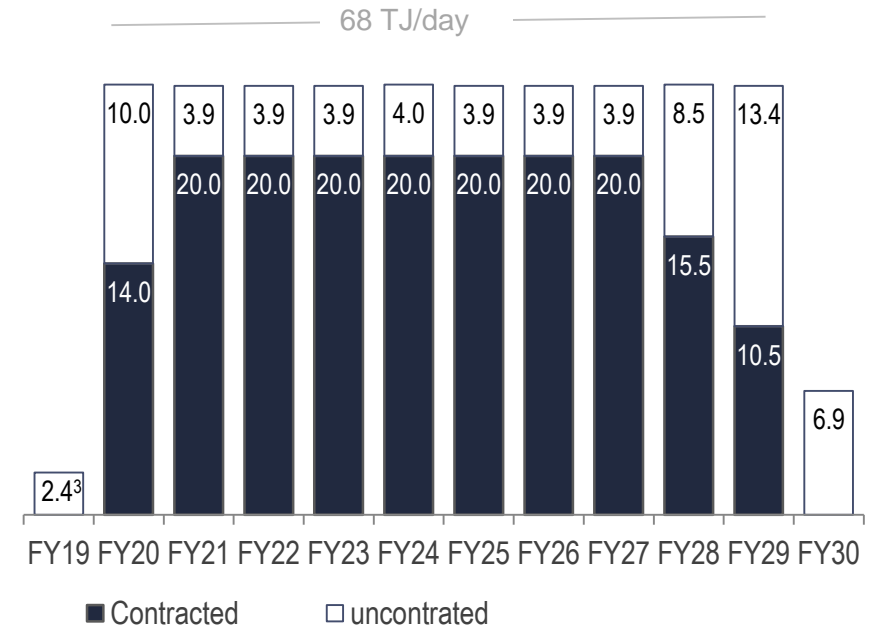


# Sole gas marketing

## Gas contracts in place support financing, with upside retained

- Take or pay contracts support financing: 20 PJ pa<sup>1</sup> (55 TJ/day) with blue chip customers:
  - AGL: 12 PJ pa
  - EnergyAustralia: 5 PJ pa
  - Alinta Energy: 2 PJ pa
  - O-I Australia: 1 PJ pa
- Uncontracted gas retained for shorter term, higher value sales in tight market
- Additional 8 PJ anticipated from 2 well development plan
  - further upside value opportunity
- Options to accelerate production to be assessed

Sole gas production: contracted and uncontracted PJ pa – based on current onshore plant capacity<sup>2</sup>



<sup>1</sup> Total contracted is 180 PJ, assuming majority extension options from 2024

<sup>2</sup> Current onshore plant capacity is 68 TJ/day (25 PJ pa); Development plan delivers reservoir production capability of 74 TJ/day

<sup>3</sup> Start-up timing is dependent upon Orbost Gas Plant start-up timing

# Reserves and Contingent Resources

Reserves*		Proved (1P)			Proved & Probable (2P)			Proved, Probable & Possible (3P)		
		Cooper <sup>1</sup>	Otway <sup>2</sup>	Total	Cooper <sup>1</sup>	Otway <sup>2</sup>	Total	Cooper <sup>1</sup>	Otway <sup>2</sup>	Total
<b>Developed</b>										
<b>Sales Gas</b>	PJ	0.0	4.8	<b>4.8</b>	0.0	15.2	<b>15.2</b>	0.0	29.3	<b>29.3</b>
<b>Oil + Condensate</b>	MMbbl	0.5	0.0	<b>0.5</b>	0.9	0.0	<b>0.9</b>	1.6	0.0	<b>1.6</b>
<b>Total developed</b>	MMboe <sup>2</sup>	0.5	0.8	<b>1.3</b>	0.9	2.6	<b>3.5</b>	1.6	5.1	<b>6.7</b>
<b>Undeveloped</b>										
<b>Sales Gas</b>	PJ	0.0	34.4	<b>34.4</b>	0.0	45.1	<b>45.1</b>	0.0	62.7	<b>62.7</b>
<b>Oil + Condensate</b>	PJ	0.1	0.0	<b>0.2</b>	0.3	1.1	<b>0.3</b>	0.5	0.1	<b>0.5</b>
<b>Total undeveloped</b>	MMboe <sup>2</sup>	0.1	6.0	<b>6.1</b>	0.3	7.8	<b>8.1</b>	0.5	10.9	<b>11.3</b>
<b>Total<sup>1</sup></b>	MMboe <sup>2</sup>	<b>0.7</b>	<b>6.8</b>	<b>7.4</b>	<b>1.1</b>	<b>10.4</b>	<b>11.6</b>	<b>2.1</b>	<b>15.9</b>	<b>18.0</b>

1 Totals may not reflect arithmetic addition due to rounding. The method of aggregation is by arithmetic sum by category. As a result, the 1P estimate may be conservative and the 3P estimate may be optimistic due to the effects of arithmetic summation. The conversion factor of 1 PJ = 0.172 MMboe has been used to convert from Sales Gas (PJ) to Oil Equivalent (MMboe). 2 The reserves revisions include Cooper Energy's share of future crude fuel usage in the Cooper Basin. The estimated fuel usage for PEL 92 is: 1P 0.02 MMbbl, 2P 0.03 MMbbl and 3P 0.06 MMbbl. The estimated fuel usage for the Worrior Field (PPL 207) is: 1P 0.01 MMbbl, 2P 0.02 MMbbl and 3P 0.03 MMbbl. 3 The Otway gas reserves for Casino Henry and Netherby fields are net of fuel gas

Contingent Resources*	1C			2C			3C		
	Gas	Oil	Total <sup>1</sup>	Gas	Oil	Total	Gas	Oil	Total
	PJ	MMbbl	MMboe <sup>2</sup>	PJ	MMbbl	MMboe <sup>2</sup>	PJ	MMbbl	MMboe <sup>2</sup>
<b>Gippsland</b>	291.7	4.0	54.1	388.5	7.6	74.4	533.6	12.1	103.9
<b>Cooper</b>	0.2	0.0	0.03	0.3	0.0	0.1	0.6	0.0	0.1
<b>Total<sup>1</sup></b>	<b>291.9</b>	<b>4.0</b>	<b>54.2</b>	<b>388.8</b>	<b>7.6</b>	<b>74.4</b>	<b>534.2</b>	<b>12.1</b>	<b>104.0</b>

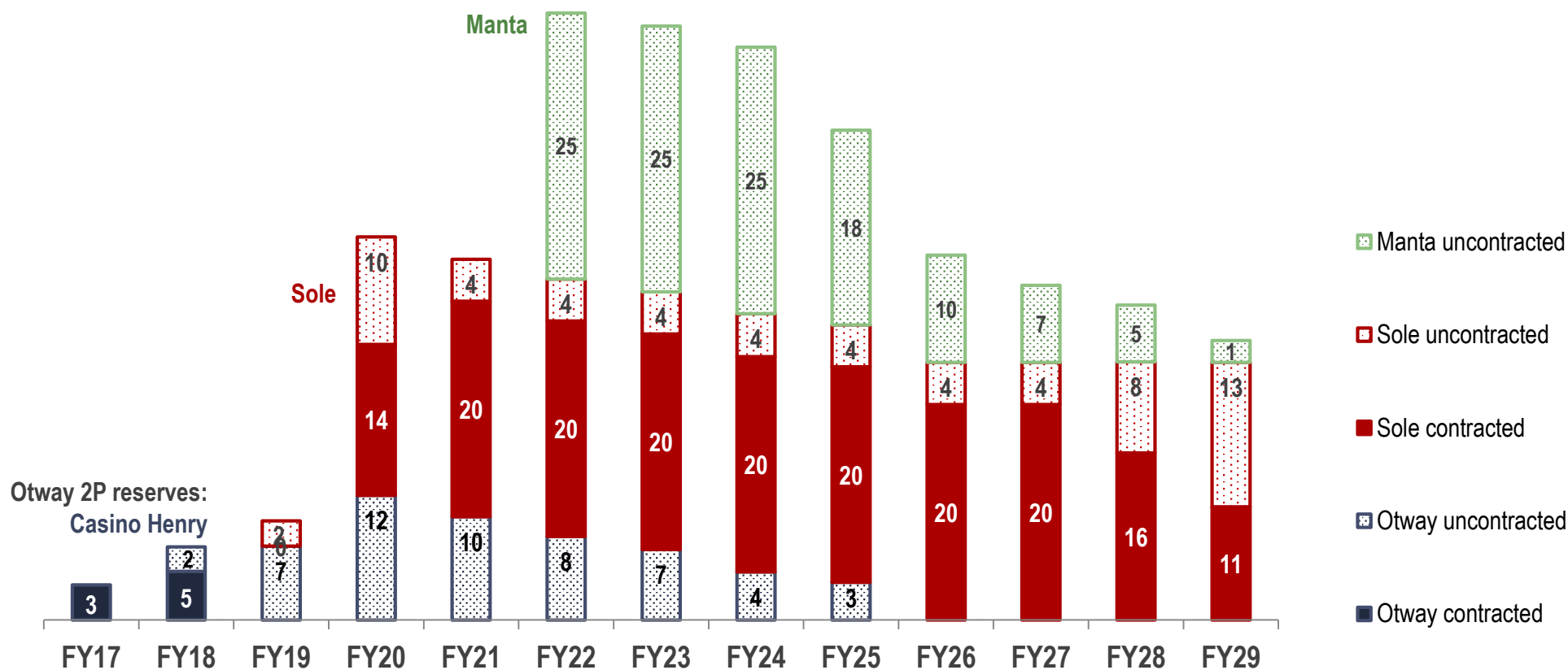
1 Totals may not reflect arithmetic addition due to rounding. The method of aggregation is by arithmetic sum by category. As a result, the 1C estimate may be conservative and the 3C estimate may be optimistic due to the effects of arithmetic summation. 2 The conversion factor of 1 PJ = 0.172 MMboe has been used to convert from Sales Gas (PJ) to Oil Equivalent (MMboe).

# Profile of contracted and uncontracted gas by project (PJ)

Existing assets & projects offer growth over 6 years before exploration opportunities considered

## Gas production profile by project

contracted & uncontracted PJ pa



Assumes:

- Sole finance complete for March quarter 2019 first Sole gas to plant
- All contract options in respect of Sole field are exercised
- Manta subject to Manta 3 appraisal well; Manta profile illustrates all Manta gas as uncontracted (including 4 PJ pa option held by AGL). Manta profile includes 106 PJ 2C resource and additional 10 PJ anticipated
- Development well required for Casino Henry ~2018/19
- No exploration success

Note: all numbers rounded

# Sole gas project: the gas field

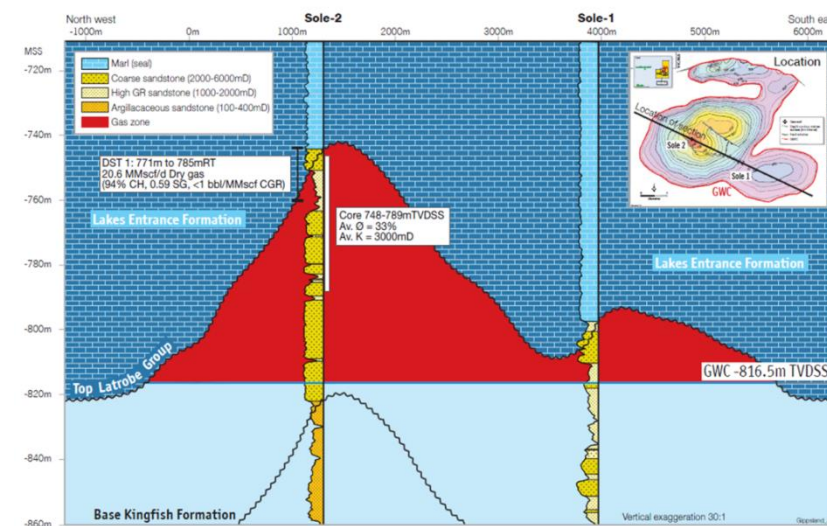
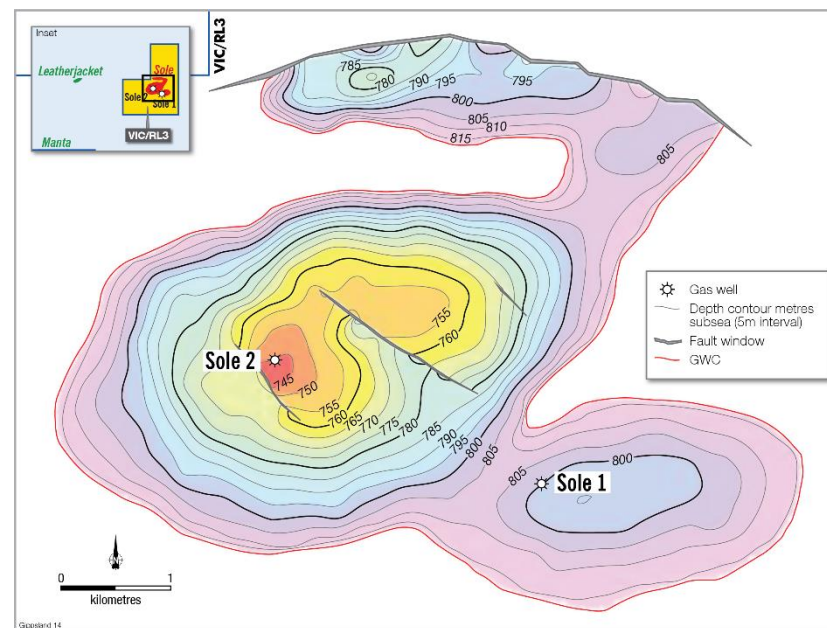
## Well defined structure and good reservoir quality

### Discovery

- Sole field discovered by Shell and has been appraised by two wells:
  - Sole-1 drilled by Shell in 1973 on the flank of the field intersected 16 m of net gas pay in the Palaeocene Kingfish Formation
  - Sole-2 drilled by OMV in 2002 near the crest of the structure intersected 68 m net gas pay. Production test at Sole-2 flowed gas to surface at 20.6 MMcf/d

### Reservoir well defined

- Reservoir located at shallow depths below the sea floor - mapped depth to top of gas column is at 745 m subsea, maximum gas column height is 71.5 m
- Reservoir well defined – high structural confidence as direct hydrocarbon indicator coincides with the gas-water-contact (GWC)
- Field simple four way dip closed structure with excellent seismic definition
- Excellent reservoir properties - average porosity greater than 30% and permeability greater than 1 darcy
- H<sub>2</sub>S but no CO<sub>2</sub> removal required - gas contains 1% CO<sub>2</sub>, 0.15% (1500 ppm) H<sub>2</sub>S and less than 1bbl condensate / MMcf



# Manta gas field

## Contingent resource plus significant deeper exploration potential

### Geological setting

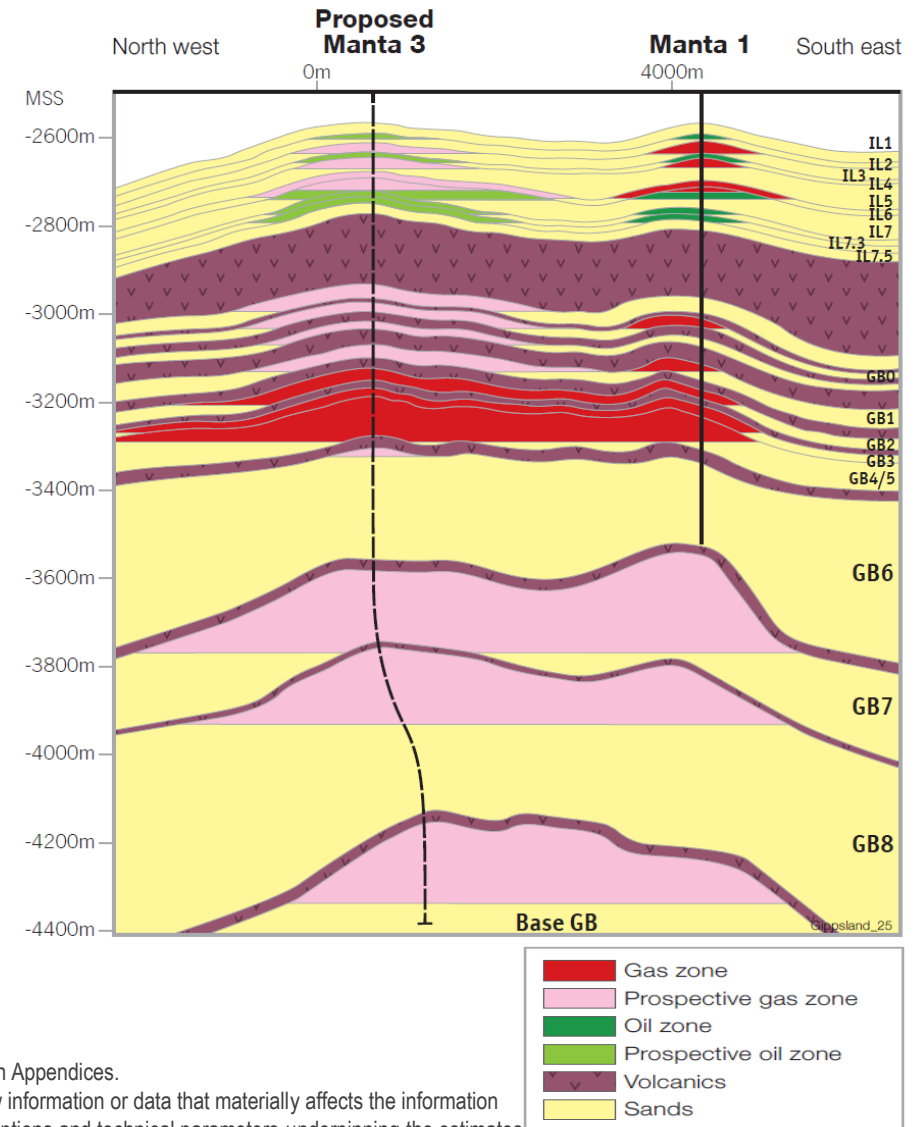
- a structural three-way dip, one-way fault closure against a NE-SW trending fault
- Manta-1, exploration well drilled in 1984, and Manta-2A, production well drilled in 2006
- Gas, condensate and oil, within sands of the top Intra-Latrobe Group and the deeper Golden Beach Subgroup

### Exploration upside

- Potential for discovery of gas bearing reservoirs in the Golden Beach formation below the proven gas reservoirs at Manta-1. Untested structures are mapped below the maximum depth of the Manta-1 discovery well
- By drilling c. 1,000 metres deeper than Manta-1, several additional targets can be tested whilst appraising the proven gas & oil in the Intra-Latrobe and Golden Beach formations
- Evaluation of the Manta field prospectivity is being incorporated into conceptual planning for Manta-3.

### Resource

- Gas resource of 106 PJ 2C Contingent and Risked Prospective Resource of 10 PJ<sup>1</sup>
- Re-assessed Best Estimate Net Prospective Resource<sup>2</sup> in Manta and Chimaera is 97.5 MMboe consisting of 491 PJ gas and 13.1 MMbbls oil and gas liquid (Cooper Energy 100% net share)
- The estimated quantities of petroleum that may be potentially recovered by the application of future development project(s) relate to undiscovered accumulations. These estimates have both an associated 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 moveable hydrocarbons.



<sup>1</sup> As announced to ASX on 16 July 2015. Refer to notes on Reserve and Resource calculation in Appendices.

<sup>2</sup> As announced to ASX on 4 May 2016. Cooper Energy confirms that it is not aware of any new information or data that materially affects the information included in the announcements of 16 July 2015 and 4 May 2016 and that all the material assumptions and technical parameters underpinning the estimates in the announcements continue to apply and have not materially changed.



# Notes on calculation of Reserves and Resources

## Notes on Calculation of Reserves and Contingent Resources

The approach for all reserve and resource calculations is consistent with the definitions and guidelines in the Society of Petroleum Engineers (SPE) 2007 Petroleum Resources Management System (PRMS). The resource estimate methodologies incorporate a range of uncertainty relating to each of the key reservoir input parameters to predict the likely range of outcomes. Cooper Energy has completed its own estimation of reserves and contingent resources based on information provided by the permit Operators Beach Energy Ltd, Senex Ltd and Santos Ltd, and in accordance with the definitions and guidelines in the Society of Petroleum Engineers (SPE) 2007 Petroleum Resources Management System (PRMS). Petroleum Reserves and Contingent Resources are prepared using deterministic and probabilistic methods. The method of aggregation for all reserves and contingent resources tables is by arithmetic summation by category. Aggregated 1P and 1C estimates may be conservative and aggregated 3P and 3C estimates may be optimistic due to the effects of arithmetic summation. Totals may not exactly reflect arithmetic addition due to rounding.

## Qualified Petroleum Reserves and Resources Evaluator Statement

The information contained in this report regarding the Cooper Energy reserves and contingent resources is based on, and fairly represents, information and supporting documentation reviewed by Mr Andrew Thomas who is a full-time employee of Cooper Energy Limited 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.

## Reserves

The Cooper Basin totals comprise the probabilistically aggregated PEL 92 project fields and the arithmetic summation of the Worrior project reserves. Total includes 0.05 MMbbl oil reserves used for field fuel. The Indonesia totals include removal of non-shareable oil (NSO) and comprise the probabilistically aggregated Tangai-Sukananti KSO project fields. Totals are derived by arithmetic summation. In the Otway Basin, reserves for the Casino, Henry and Netherby fields have been assessed by Cooper Energy. The Reserves have been assessed using deterministic and probabilistic methodologies for the Waarre Formation at the Casino, Henry and Netherby fields. This methodology incorporates a range of uncertainty relating to each of the key reservoir input parameters to predict the likely range of outcomes. Cooper Energy undertook the following analytical procedures to estimate the Reserves: independent interpretation of 3D seismic data; analysis of historical production data to assess accessed gas volumes and future production forecasts; review of the Operator's reservoir and production simulation models to define raw gas recovery consistent with existing processing facilities; and independent probabilistic Monte Carlo statistical calculations to establish the range of recoverable gas. The Otway gas reserves for Casino, Henry and Netherby fields are net of fuel gas. The date of the Casino, Henry and Netherby Reserve Assessment is 27 February 2017.

## Notes on calculation of Contingent Resources

### *Sole gas field*

The contingent resource for the Sole field has been re-estimated assuming a two well subsea development plan. Advantages of a two well plan compared to the previous single well development include: increased 2C estimate attributable to accessing previously undeveloped gas; and reduced technical risk and enhanced field redundancy providing increased security of supply to the gas processing and gas sales agreements. Contingent resources for the Sole field were released to the ASX on 26 November 2015. Post-acquisition of the remaining 50% equity in the Sole gas field the following methodologies were used by Cooper Energy to re-calculate the Sole contingent resource estimate: probabilistic simulation modelling for the Kingfish Formation; incorporation of a range of uncertainty relating to each of the key reservoir input parameters to predict the likely range of outcomes; and review of the reservoir and simulation modelling assuming a two well subsea development. The date of the Sole contingent resource assessment is 27 February 2017.

### *Manta gas and oil field*

Contingent and Prospective Resources have been assessed using deterministic simulation modelling and probabilistic resource estimation for the Intra-Latrobe and Golden Beach Sub-Group in the Manta field. This methodology incorporates a range of uncertainty relating to each of the key reservoir input parameters to predict the likely range of outcomes. The conversion factor of 1PJ = 0.172MMboe has been used to convert from Sales Gas (PJ) to Oil Equivalent (MMboe). Contingent Resources for the Manta Field have been aggregated by arithmetic summation. The date of the Manta Contingent Resource assessment is 16 July 2015 and the assessment was announced to the ASX on 16 July 2015. Cooper Energy is not aware of any new information or data that materially affects the information provided in that release and all material assumptions and technical parameters underpinning the assessment provided in the announcement continues to apply.

### *Basker gas and oil field*

Contingent and Prospective Resources have been assessed using deterministic simulation modelling and probabilistic resource estimation for the Intra-Latrobe Sub-Group in the Basker field. This methodology incorporates a range of uncertainty relating to each of the key reservoir input parameters to predict the likely range of outcomes. The conversion factor of 1PJ = 0.172MMboe has been used to convert from Sales Gas (PJ) to Oil Equivalent (MMboe). Contingent Resources for the Basker Field have been aggregated by arithmetic summation. The date of the Basker Contingent Resource assessment is 15 August 2014 and the assessment was announced to the ASX on 18 August 2014. Cooper Energy is not aware of any new information or data that materially affects the information provided in that release and all material assumptions and technical parameters underpinning the assessment provided in the announcement continues to apply.



# Senior management

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## Managing Director David Maxwell

David Maxwell has over 30 years' experience as a senior executive with companies such as BG Group, Woodside and Santos. As Senior Vice President at QGC, a BG Group business, he led BG's entry into Australia, its alliance with and subsequent takeover of QGC. Roles at Woodside included director of gas and marketing and membership of Woodside's executive committee.

## General Manager, Development Duncan Clegg

Duncan Clegg has over 35 years' experience in upstream and midstream oil and gas development, including management positions at Shell and Woodside, leading oil and gas developments including FPSO, subsea and fixed platforms developments. At Woodside Duncan held several senior executive positions including Director of the Australian Business Unit, Director of the African Business Unit and CEO of the North West Shelf Venture.

## Company Secretary & General Counsel Alison Evans

Alison Evans is an experienced company secretary and corporate legal counsel with extensive knowledge of corporate and commercial law in the resources and energy sectors. Alison has held Company Secretary and Legal Counsel roles at a number of minerals and energy companies including Centrex Metals, GTL Energy and AGL. Ms Evans' public company experience is supported work at leading corporate law firms.

## General Manager, Commercial & Business Development Eddy Glavas

Eddy Glavas has more than 18 years' experience in business development, finance, commercial, portfolio management and strategy, including 14 years in the oil and gas sector. Prior to joining Cooper Energy, he was employed by Santos as Manager Corporate Development with responsibility for managing multi-disciplinary teams tasked with mergers, acquisitions, partnerships and divestitures.

## General Manager, Operations Iain MacDougall

Iain MacDougall has more than 25 years' experience in the upstream petroleum exploration and production sector including senior management roles within independent operators and international experience with Schlumberger. In Australia previous employment includes Stuart Petroleum as Production and Engineering Manager and then as acting CEO prior to the takeover of Stuart Petroleum by Senex Energy.

## Chief Financial Officer (Acting) Virginia Suttell

Virginia Suttell is a chartered accountant with more than 20 years' experience, including 16 years in publicly listed entities, principally in group finance and secretarial roles in the resources and media sectors. This has included the role of Chief Financial Officer and Company Secretary for Monax Mining Limited and Marmota Energy Limited from 2007 to 2016, and 2007 to 2015 respectively. Other previous appointments include Group Financial Controller at Austereo Group Limited.

## General Manager, Exploration & Subsurface Andrew Thomas

Andrew Thomas is a successful geoscientist with over 28 years' experience in oil and gas exploration and development in companies including Geoscience Australia, Santos, Gulf Canada and Newfield Exploration. At Newfield he was SE Asia New Ventures Manager and Exploration Manager for offshore Sarawak.

# Abbreviations

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\$, A\$	Australian dollars unless specified otherwise
Bbl	barrels of oil
boe	barrel of oil equivalent
bopd	barrel of oil per day
EBITDA	earnings before interest, tax, depreciation and amortisation
FEED	Front end engineering and design
kbbls	thousand barrels
LTIFR	Lost Time Injury Frequency Rate. Lost Time Incidents per million man hours worked
m	metres
MMbbl	million barrels of oil
MMboe	million barrels of oil equivalent
NOPSEMA	National Offshore Petroleum Safety & Environmental Management Authority
NOPTA	National Offshore Petroleum Titles Administrator
NPAT	net profit after tax
PEL 92	Joint Venture conducting operations in Western Flank Cooper Basin Petroleum Retention Licences 85 – 104 previously encompassed by the PEL 92 exploration licence
TRCFR	Total Recordable Case Frequency Rate. Recordable cases per million hours worked
TSR	total shareholder return
1P reserves	Proved reserves
2P reserves	Proved and Probable reserves
3P	Proved, Probable and Possible reserves
1C, 2C, 3C	high, medium and low estimates of contingent resources