



# Gas business & oil production

Presentation to Euroz Securities  
Institutional Conference  
16 March 2016

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## Qualified petroleum reserves and resources evaluator

This report contains information on petroleum 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 Exploration Manager, 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.

## Dollars

Unless otherwise specified, all dollar amounts are in expressed in Australian dollars.

## Reserves and resources calculation

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

# Since March 2015

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## Gas projects upgraded and advanced, portfolio concentrating on Australia

### Gippsland Gas Projects

- ✓ Completed acquisition of Sole gas field and Orbost gas plant
- ✓ Upgraded Sole<sup>1</sup> 2C gas resource 14% to 241 PJ
- ✓ Commenced Front End Engineering and Design for Sole Gas Project FID in September quarter 2016
- ✓ Secured first Heads of Agreement for sale of gas: O-I Australia
- ✓ Completed BMG Business Case; identified economic development opportunity for Manta gas
- ✓ Identified prospectivity in reservoirs underlying Manta
- ✓ Opened data room on Gippsland Basin Gas Hub

### Indonesia

- ✓ Successful appraisal and development program increased reserves 260% and production 162%
- ✓ Initiated Indonesian portfolio divestment
- ✓ Secured agreement for sale of Indonesian exploration permits for US\$8.25 million

### Tunisia

- ✓ Nabeul JV withdrawn
- ✓ Advised intention to exit Hammamet JV
- ✓ Completing reduced Bargou work commitments

....whilst also maintaining production of 475,000 barrels per annum and reducing costs

# The next 6 – 12 months: a business transformed

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Agreements and commitments for production to exceed 2 million boe pa, concentrated in Australia

## 1 Sole gas project Final Investment Decision

Project forecast to generate revenue of \$85 - \$100 million<sup>1</sup> pa to Cooper Energy from 2019

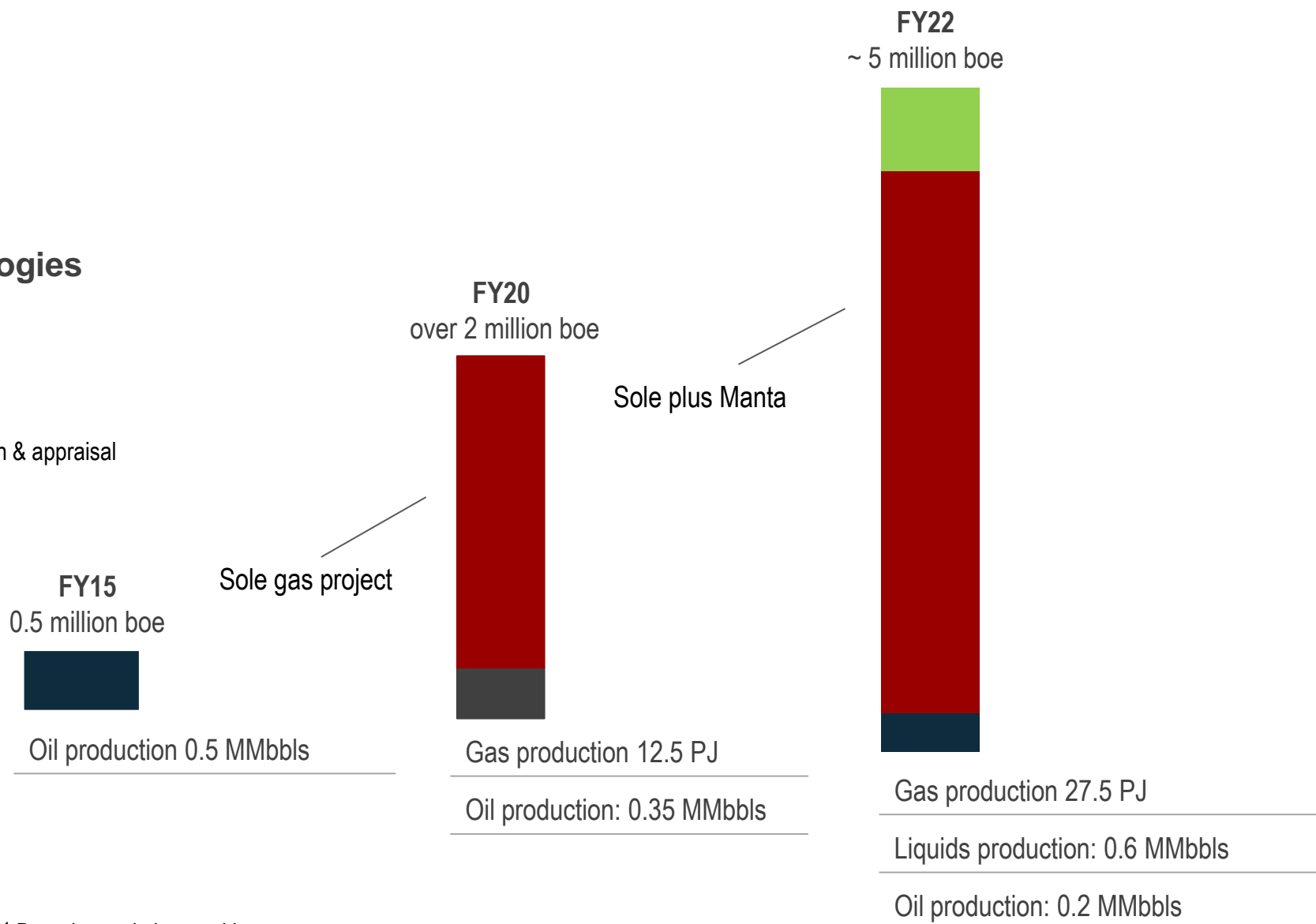
## 2 Complete the exit from non-Australian operations

# Indicative<sup>1</sup> Cooper Energy production from existing assets

Current projects have capacity to take production from 0.5 million to 5 million boe pa

- Low cost
- Conventional
- Existing plant
- Proven technologies

- Gippsland liquids
- Gippsland gas
- Existing oil with exploration & appraisal

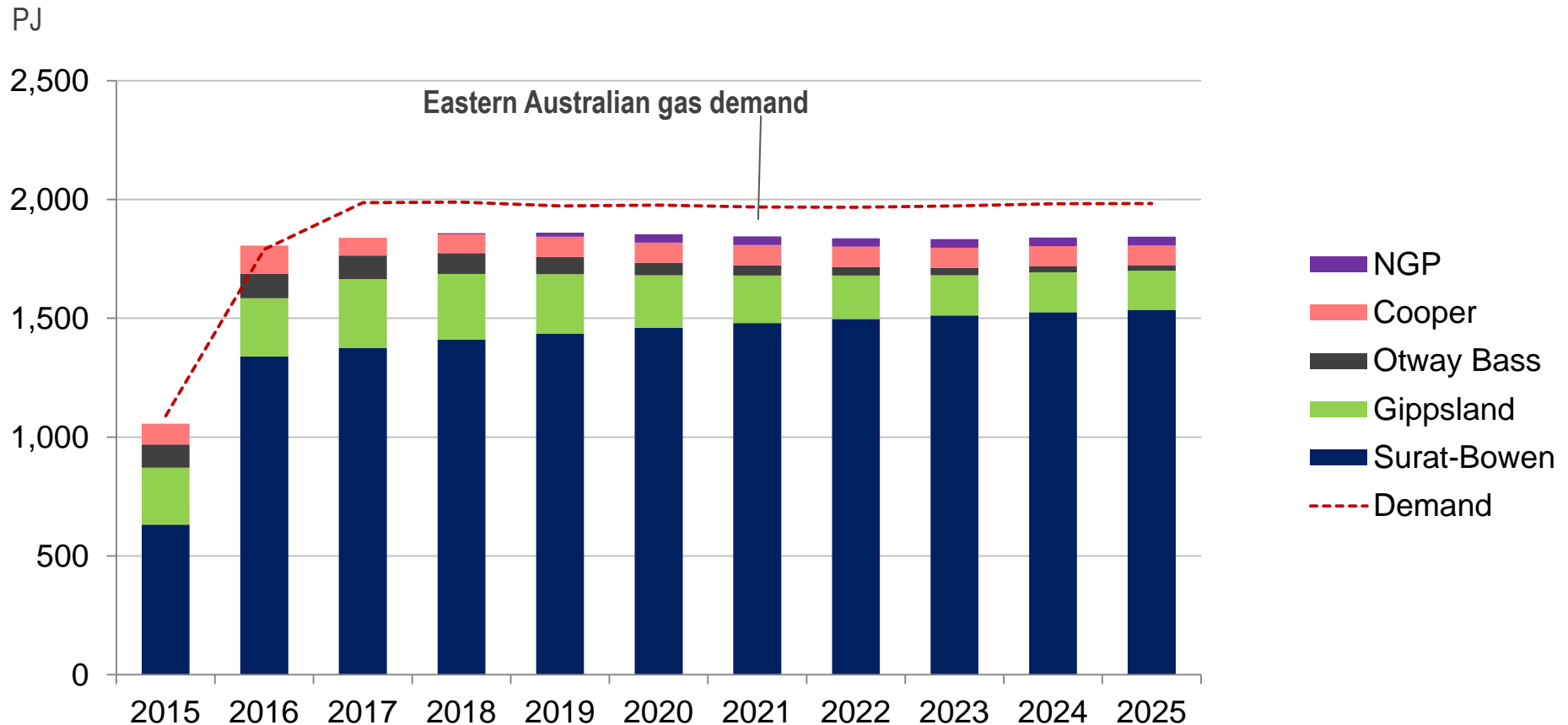


<sup>1</sup> Based on existing equities

# Forecast gas demand & supply for Eastern\* Australia

## LNG dominates looming gas supply issue

Eastern Australia domestic demand and contracted supply



Source: EnergyQuest, AEMO



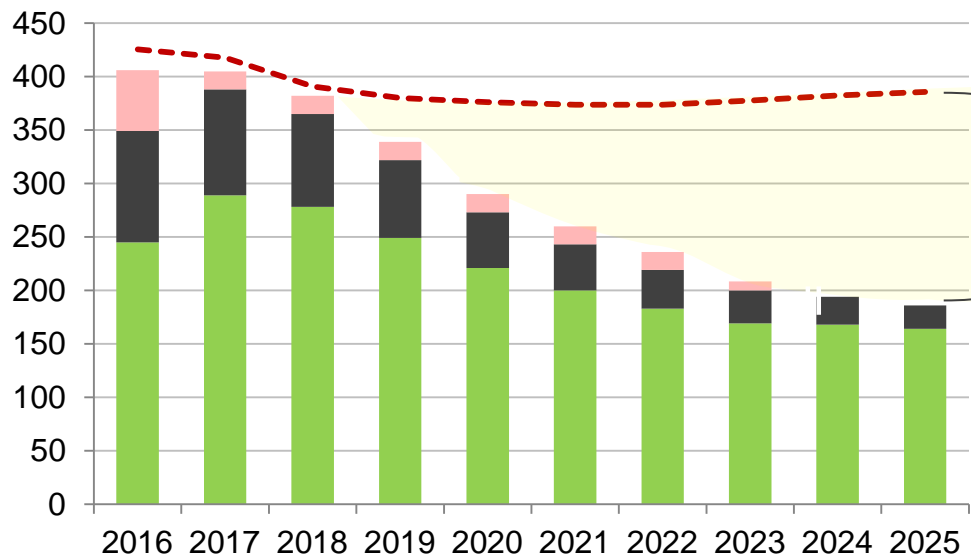
\* Eastern Australia comprises Qld domestic and LNG; NSW, Vic, SA & Tas.

# Gas supply to South East\* Australia

## Declining supply from main basins and growing shortfall

South East Australia production from existing suppliers

PJ pa

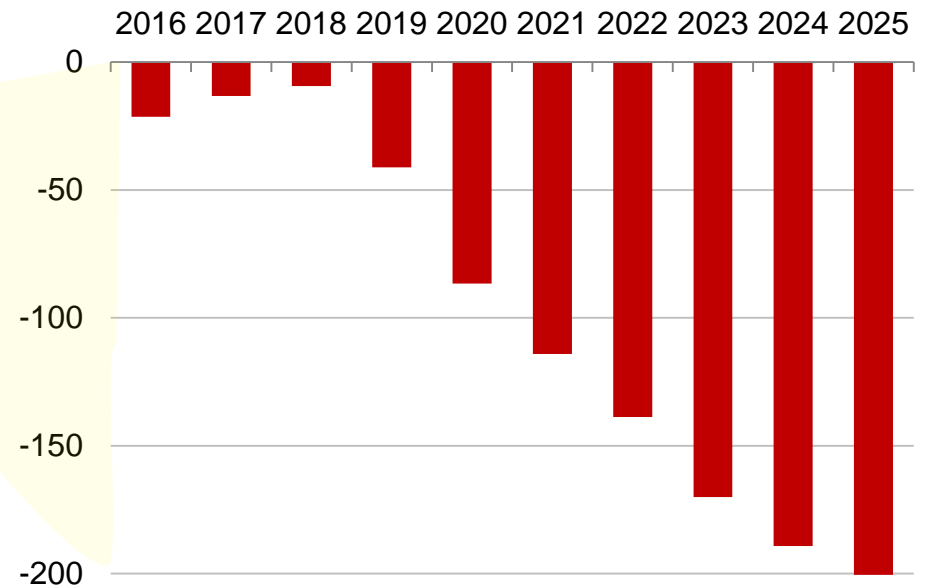


Source: EnergyQuest March 2016 Report, AEMO

- Cooper Basin
- Otway-Bass Basins
- Gippsland JV
- SE Australia Demand

Forecast South East Australia gas demand and supply balance

Pj pa



Source: EnergyQuest, AEMO

# Eastern Australian gas market

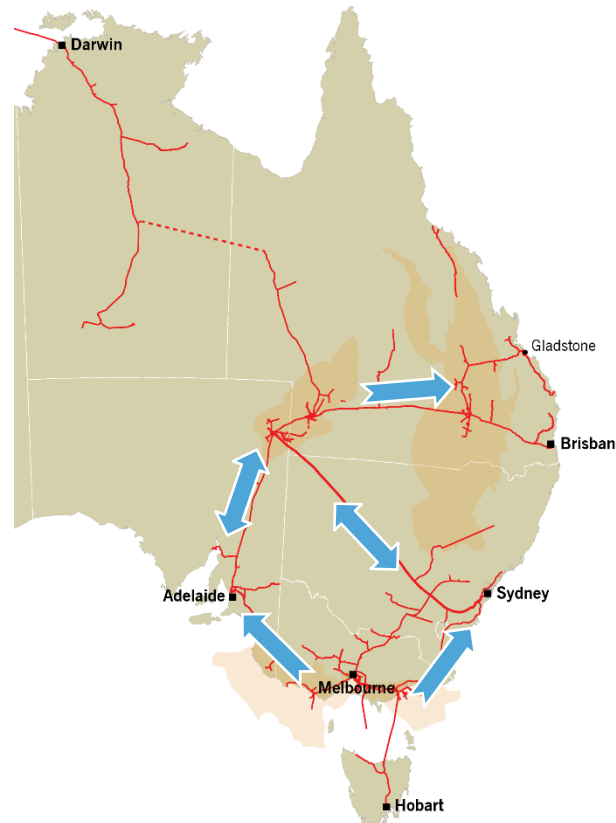
## Gas buyer activity increasing as gas availability tightening

### Demand-side

- Eastern Australia: new contracts needed from 2018
- Gladstone taking gas from sources previously focussed on SE Australia
- Gas customers increasingly active, seeking medium and long term supply
- Customers uneasy with exposure to price volatility

**= gas buyers facing, and responding to, uncertainty**

Gladstone drawing gas from Eastern Australia



### Supply-side

- Existing producing fields in decline
- Queensland and Cooper Basin commitments to Gladstone LNG
- CSG expected to be 78% of eastern Australian supply 2016 - 2025 <sup>1</sup>
- CSG uncertainty outside Queensland
- Exploration cut-backs
- Storage draw downs underway
- Reserves reduced by low oil price
- NGP directing NT gas to Queensland

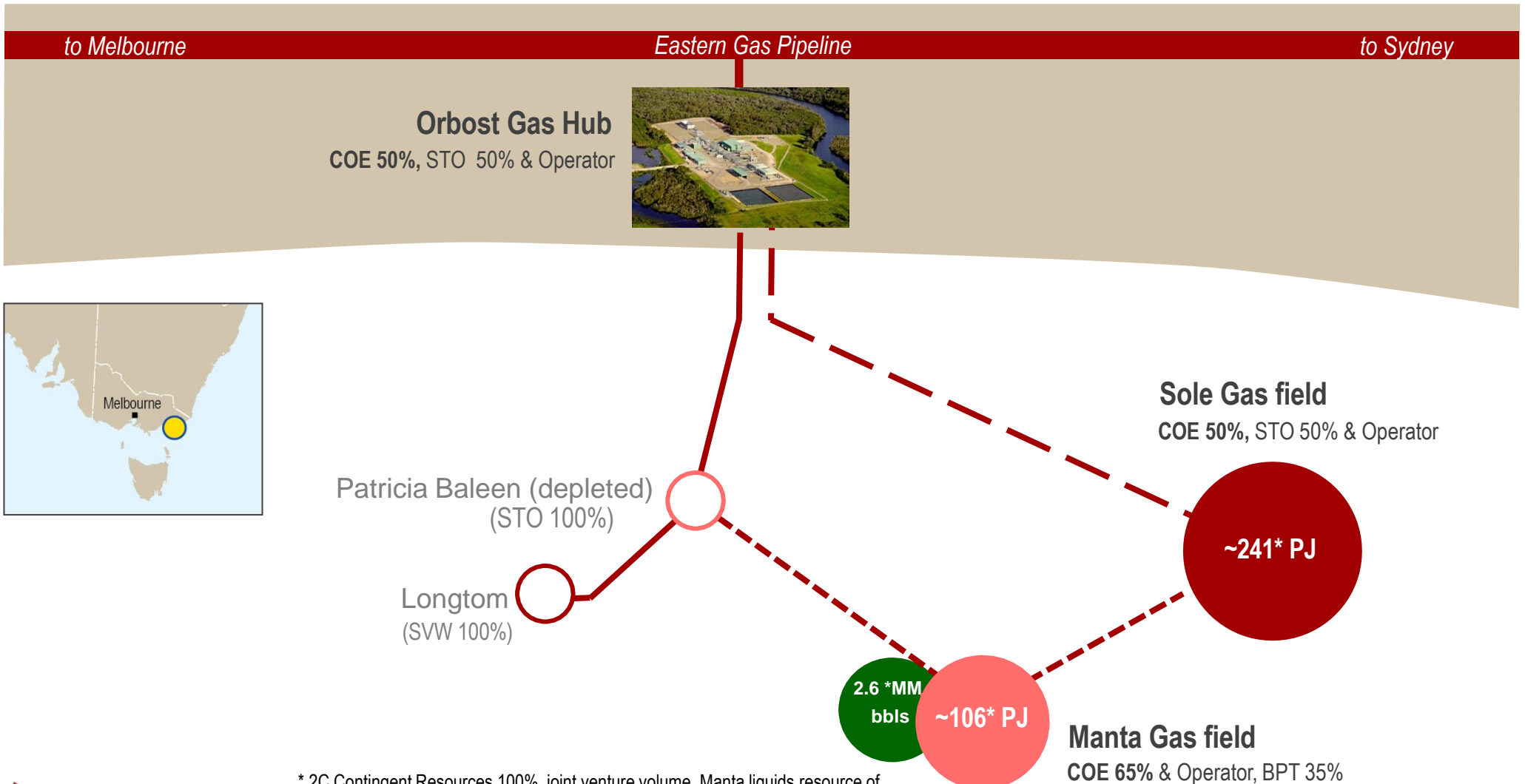
**= less gas available, supply options contracting**

<sup>1</sup> Based on EnergyQuest data



# Gippsland Gas Projects and Orbost Gas Hub

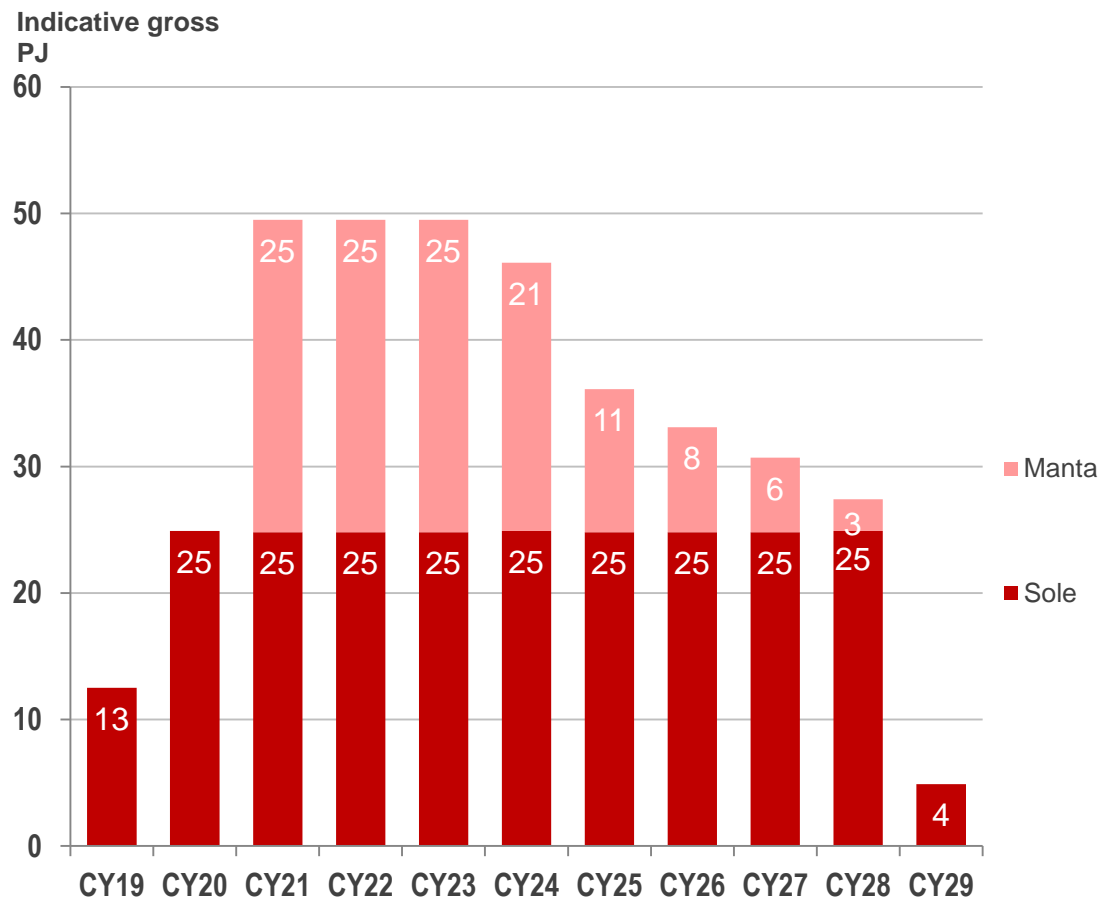
Marketable gas volumes, conventional reservoir, existing plant and pipeline access



\* 2C Contingent Resources 100% joint venture volume. Manta liquids resource of 2.6MM bbls refers to condensate only. Refer notes on resource calculation included in the appendices to this document.

# Sole and Manta gas production profile<sup>1</sup>: 100% Joint Venture volume

Solid production profile peaking at 50 PJ pa and opportunity to extend production profile

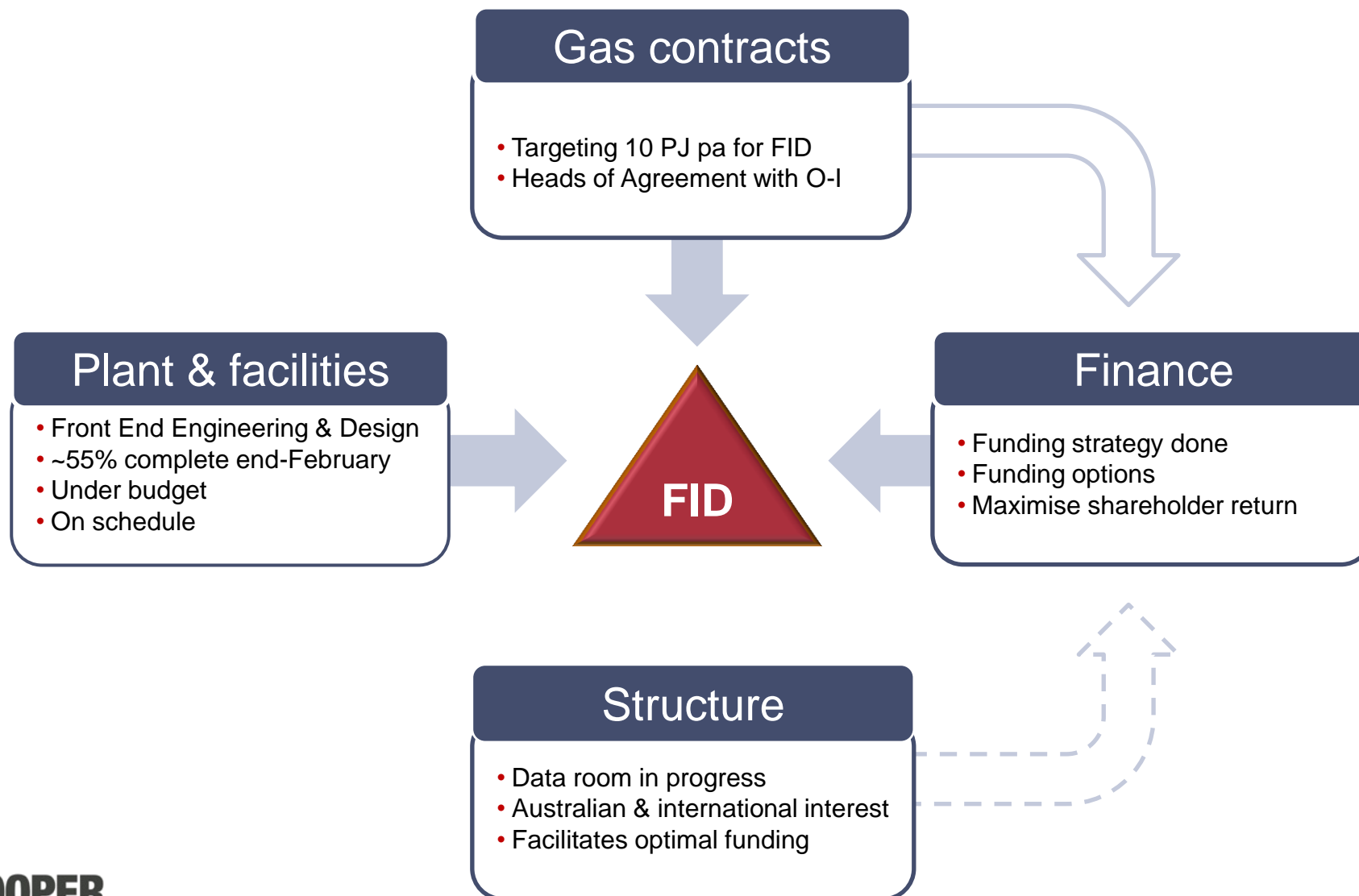


- Sole and Manta can produce more than 360 PJ (gross) from current projects
- Peak production ~50 PJ p.a.
- Strong stable cash flow anticipated
- Gas price of \$7 to \$8/GJ generates ~\$350 million to \$400 million gas revenue per annum in the plateau period
- Cumulative gas revenue of \$2.5 billion – \$2.9 billion at prices of \$7 to \$8/GJ
- Additional revenue from Manta liquids production
- Near field exploration and third party agreements will likely extend the production profile

<sup>1</sup>Indicative based on current equities and resource and subject to key milestone achievement and joint venture decision.

# Sole commercialisation

## 4 workstreams on schedule for September FID and reserves uplift

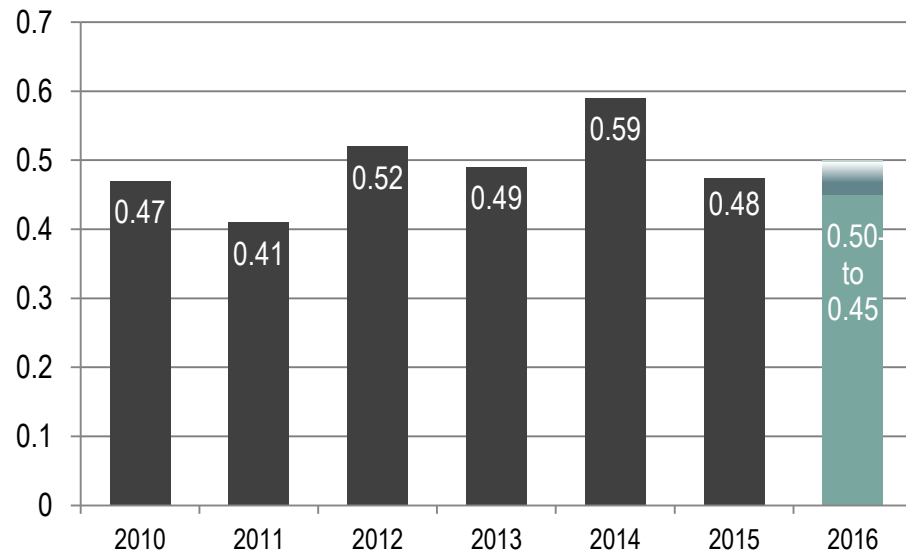


# Oil production

Maintaining 450,000 ~ 500,000 barrels per annum, with low production cost that generates cash

## Cooper Energy oil production

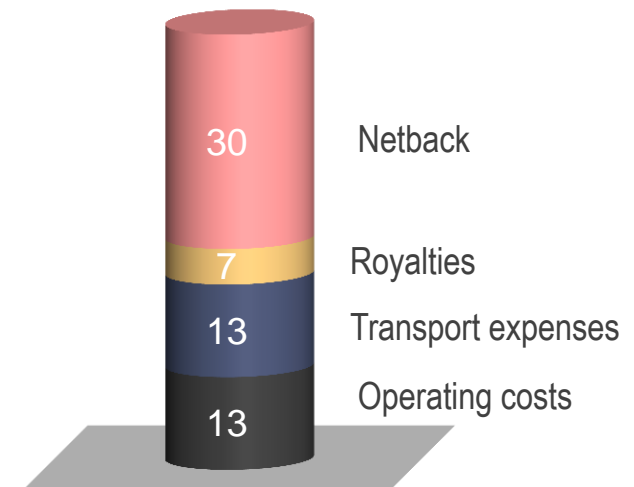
Million barrels



- FY16 guidance: 450,000 – 500,000 bbls

## Production costs

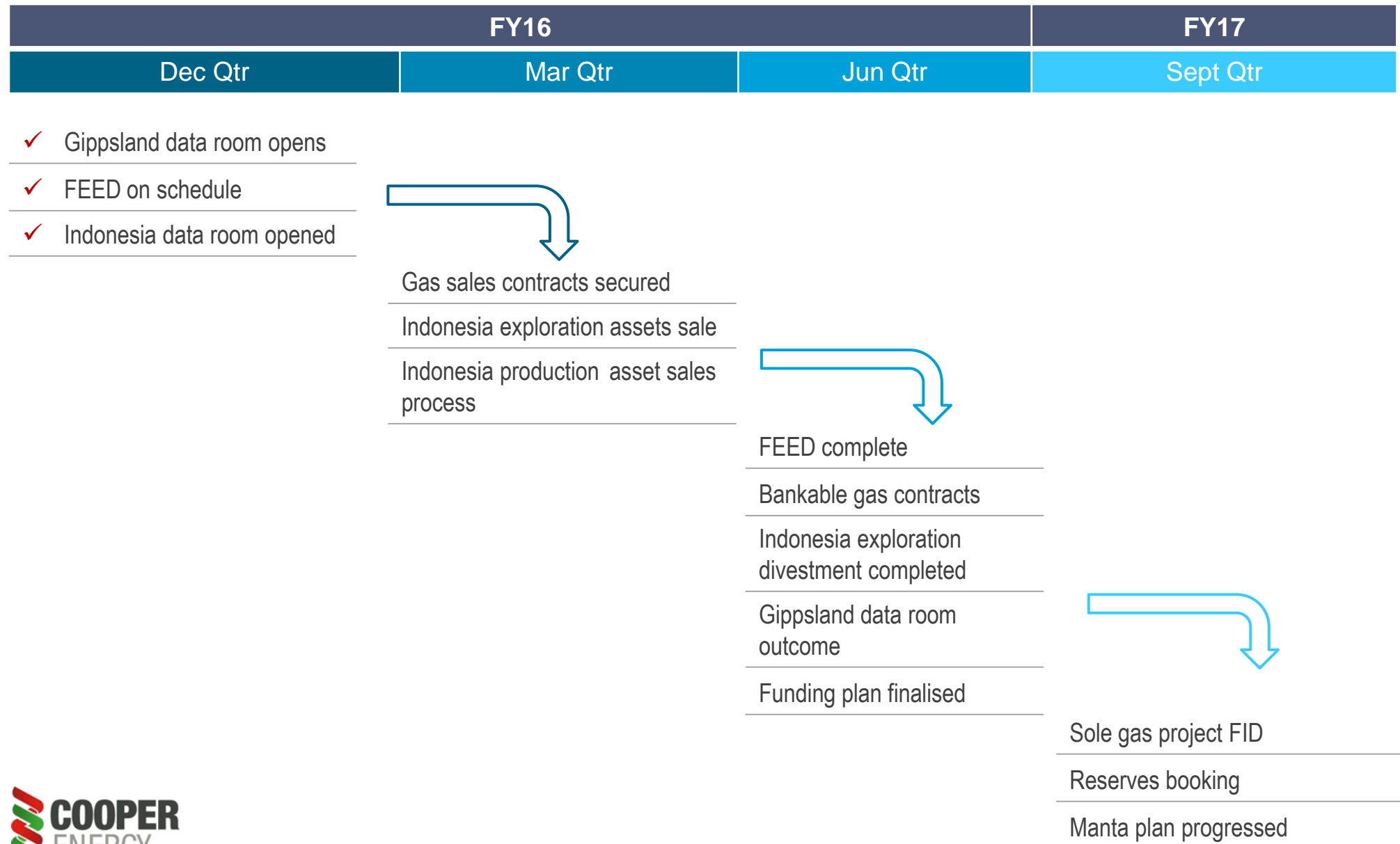
Direct cost A\$ per barrel  
FY16 first half



- First half FY16 direct costs A\$30.78/bbl
- First half FY16 average oil price A\$60.58/bbl (includes hedge benefit of \$3.32/bbl)

# Approaching events

## Near term catalysts and milestones: contracts; costings; funding; and project commitment



# Near term plan: ~9 month look-ahead

## How will Cooper Energy look within 9 months? (with execution of current work program)

~ 95 PJ Contracted gas

- Firm gas sales agreements for 95 PJ that are expected to generate revenue between \$660 million to \$760 million (COE current share) at gas prices of \$7 to \$8/GJ over 8-10 years

~ 90 PJ Uncommitted gas

- Gas available for contracting to Eastern Australian customers in a tight market
- Remaining Sole gas and Manta project gas

2 Gas projects advancing

- Sole project into development following FID
- Manta commercialisation pathway identified

Australian 2P Reserves of over 20 MMboe

- Reserves increased from 3 MMboe at 30 June 2015 to over 20 MMboe through uplift from Sole (COE current share)

Solid low cost oil production

- Cooper Basin oil production ~ 320,000 barrels in FY16 with operating cash cost of A\$32.50/bbl  
FY16 production guidance 450k – 500k bbls (in line with FY15)

Portfolio aligned

- Gippsland interests commercially aligned to optimise returns from development
- Acreage, portfolio and capital management aligned around competitive Australian gas + low cost Australian oil



Appendices

# Company snapshot

## ASX listed, strong balance sheet and stable share register

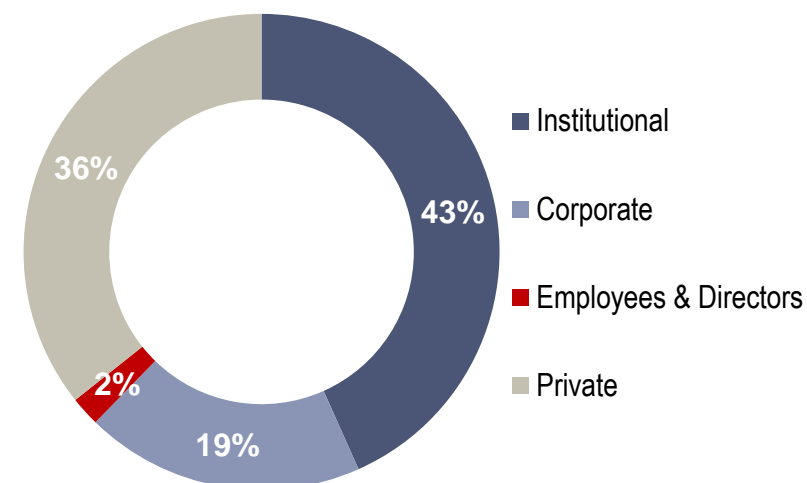
Cooper Energy is an independent Australian exploration and production company

- Cash generating from production of approx. 450,000 - 500,000 barrels of oil per annum
- Strong balance sheet, zero debt
- 190PJ of 2C Contingent Resources<sup>1</sup> (net to COE) being developed for gas opportunity in Eastern Australia
- Management team and Board experienced in growing resource companies
- Incorporated in 2002, history of profitable operations and successful exploration and development

### Key figures

Shares on issue	333.7 mill
Shareholders	4,995
Market capitalisation <sup>2</sup>	~\$63 mill
Cash & investments <sup>3</sup>	\$30 mill
Debt	Nil
Employees (FTE Australia)	21

### Cooper Energy share register



<sup>1</sup> Refer notes on Contingent Resources included in Appendices to this document

<sup>2</sup> As at 11 March 2016

<sup>3</sup> As at 31 Dec 2015



# Cooper Energy: key features

Established cash flow and production, projects to deliver transformational growth, zero debt

## 1 Oil production



450,000~500,000 bbls pa

Operating cost<sup>1</sup>: A\$31/bbl

5<sup>th</sup> largest onshore  
Australian oil producer

Cooper Basin 69%,

Indonesia 31%<sup>1</sup>

## 2 Transformational gas projects



Gippsland Basin Gas Hub

2C Contingent Resource: 347 PJ<sup>2</sup>

Low on cost curve, well located

~5x production uplift in ~3 years

## 3 Balance sheet & capital management plan



Net cash & investments :  
\$30 million<sup>1</sup>

Zero debt<sup>1</sup>

Finance facilities

Capital management plan to  
fund growth

## 4 Proven board & management



Management experienced in  
gas commercialisation

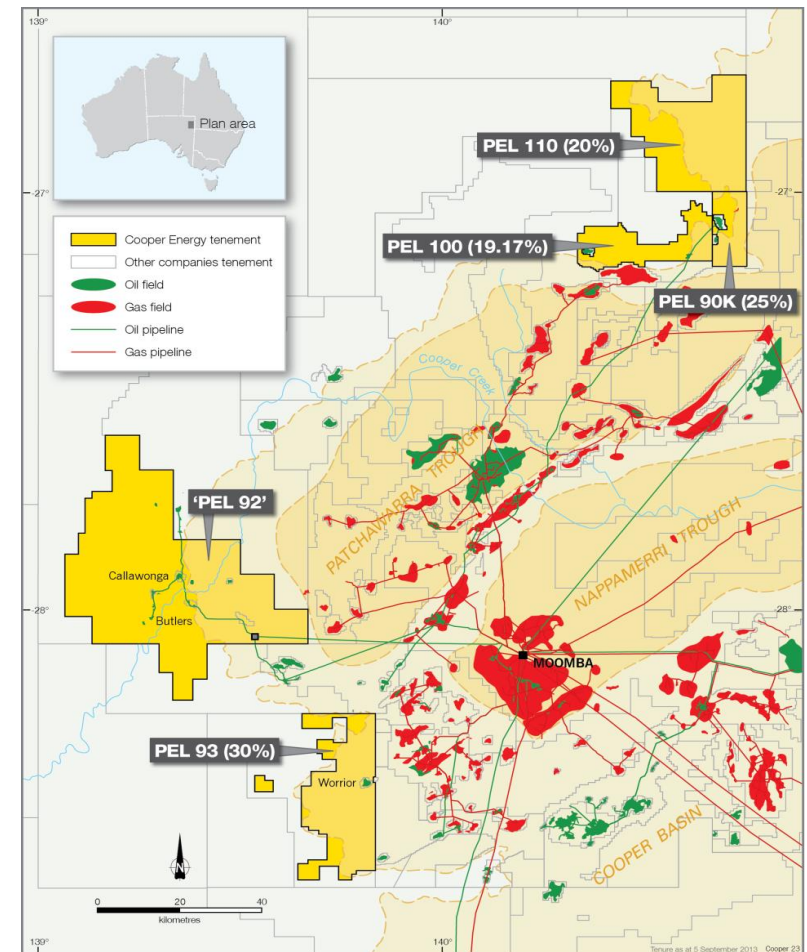
Board experience in growing gas  
and resource companies

Rem. structure linked to success

# Cooper Basin - first half results

## Low cost cash generating production; capex scaled back

- H1 FY16 oil production of 175 kbbls, in line with estimates
- Operating cash cost of A\$32.50/bbl (FY16) including transport and royalties
- Connection of Callawonga 10 & 11 in Sept-Oct
- All drilling deferred into FY17
- Callawonga facilities expansion project studies ongoing, production capacity projects deferred into FY17
- Seismic inversion studies and prospect interpretation ongoing
- Plan to 'refresh and upgrade' prospect portfolio during drilling hiatus



# Sole Gas Project

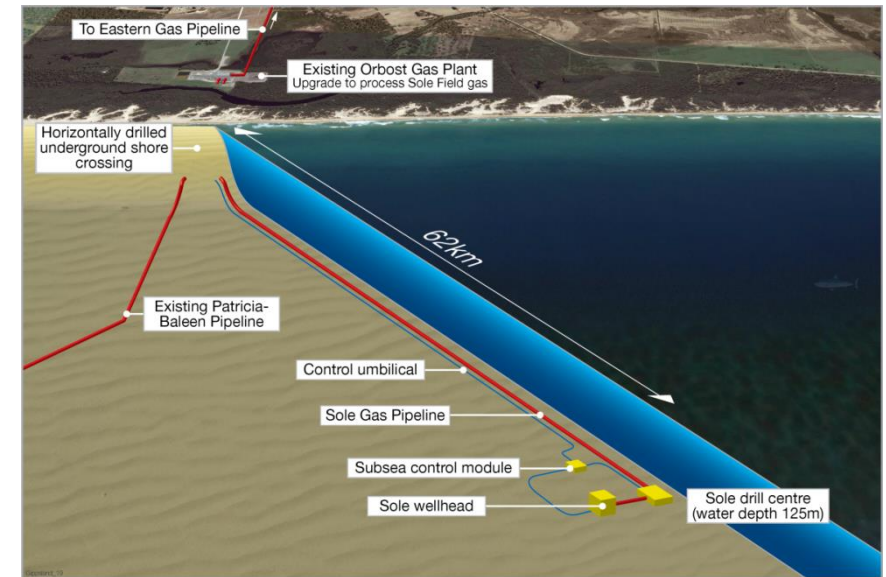
## Simple stand alone field development utilising existing plant

### Sole Gas Field

- Contingent Resources (2C) of 241 PJ
- Sole gas field in FEED for development to supply gas from Jan quarter 2019
- FEED expected to complete/proceed to FID in Sept quarter 2016
- Sole Gas project development:
  - single vertical subsea well
  - dedicated pipelines and umbilicals to Orbost plant

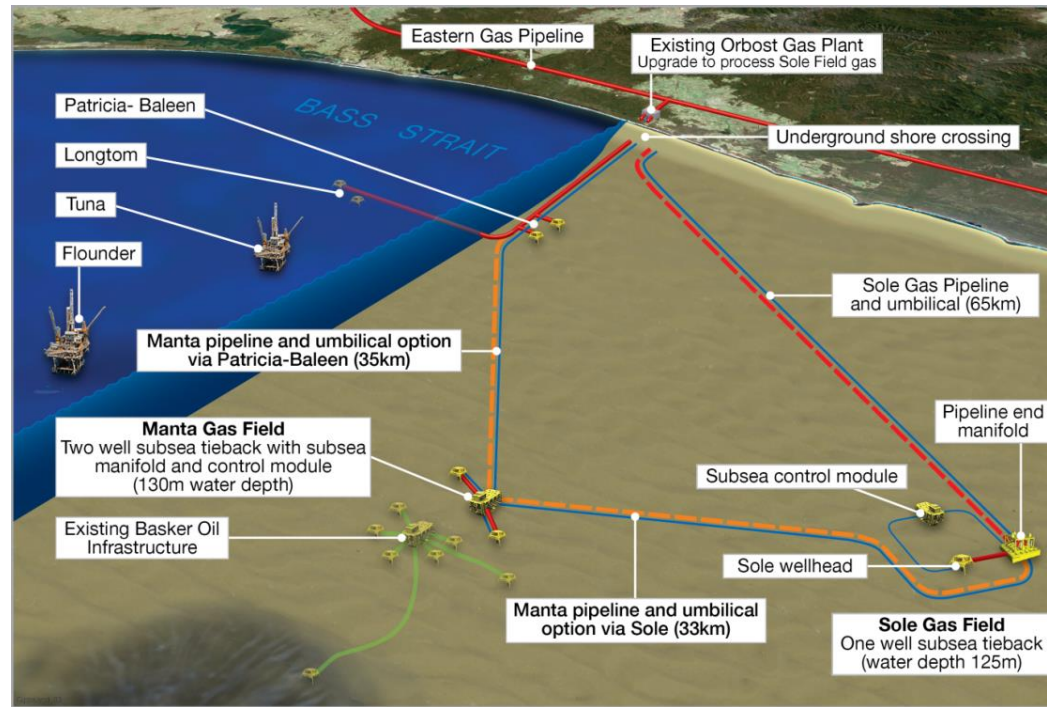
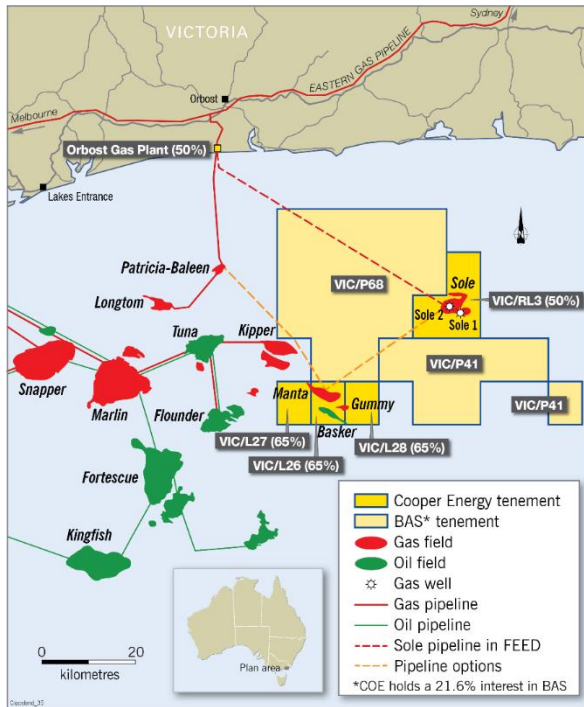
### Orbost Gas Plant

- Strategic location and expansion capacity for processing of additional 3rd party gas
- Capacity of approximately 90 TJ/day
- Plant modifications for processing Sole gas include mercury and H<sub>2</sub>S removal and additional compression
- Replacement cost estimated \$200 - \$250 million



# Gippsland Basin Gas Hub concept

## Staged development utilising existing Orbost Gas Plant

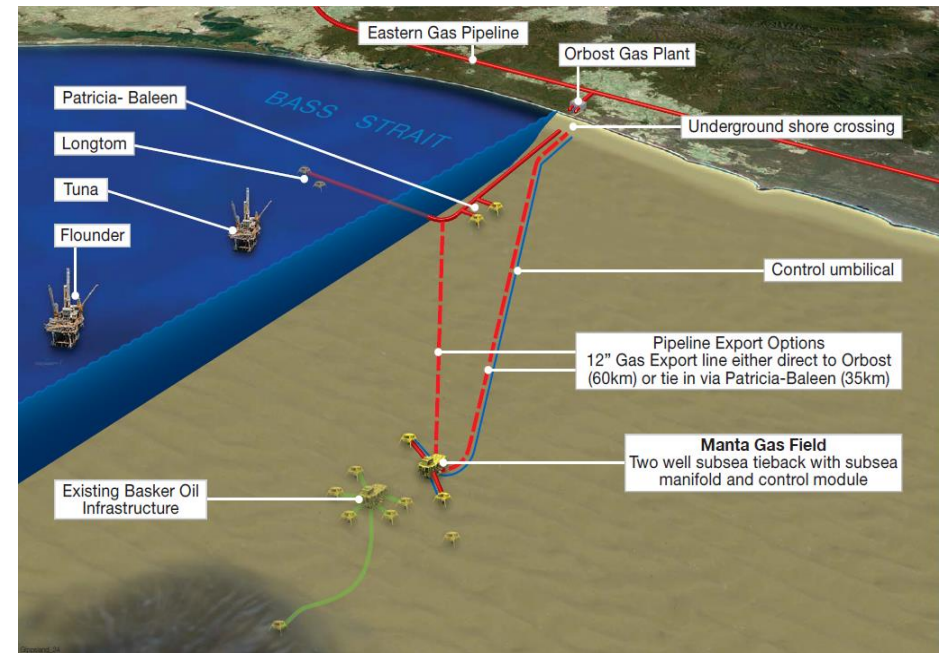


- Opportunity for capital efficient development through use of existing infrastructure and coordinated development
- Gippsland Gas Hub centred around Orbost Gas Plant for Sole, Manta and other gas resources in the region
- Potential substantial savings and value increase if Manta developed<sup>1</sup>
- Gippsland Basin Gas Hub data room initiated late November 15 to facilitate commercial alignment across projects and optimal funding for Cooper Energy

# Manta Gas Project

## 65% interest and Operator of gas project offering commercial opportunity and synergies with Sole

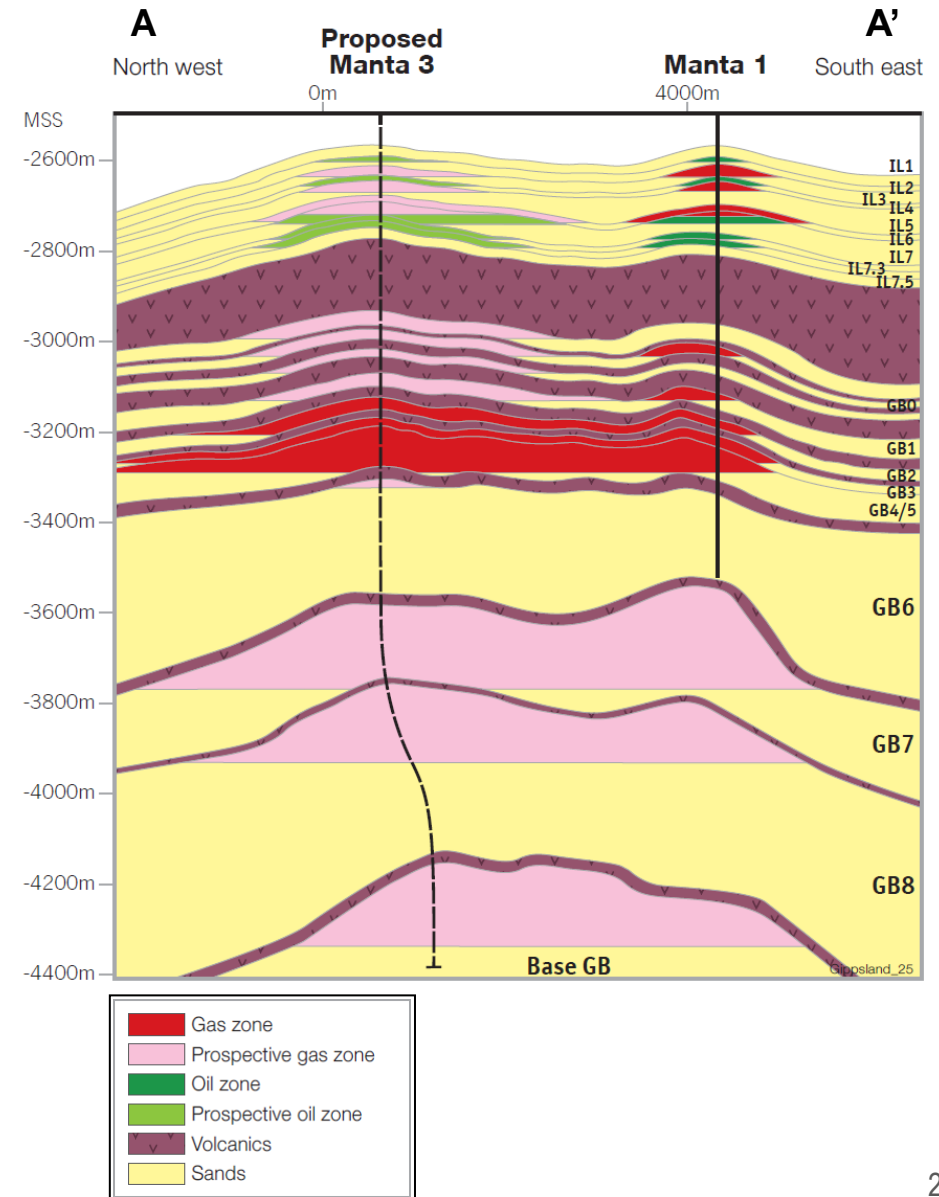
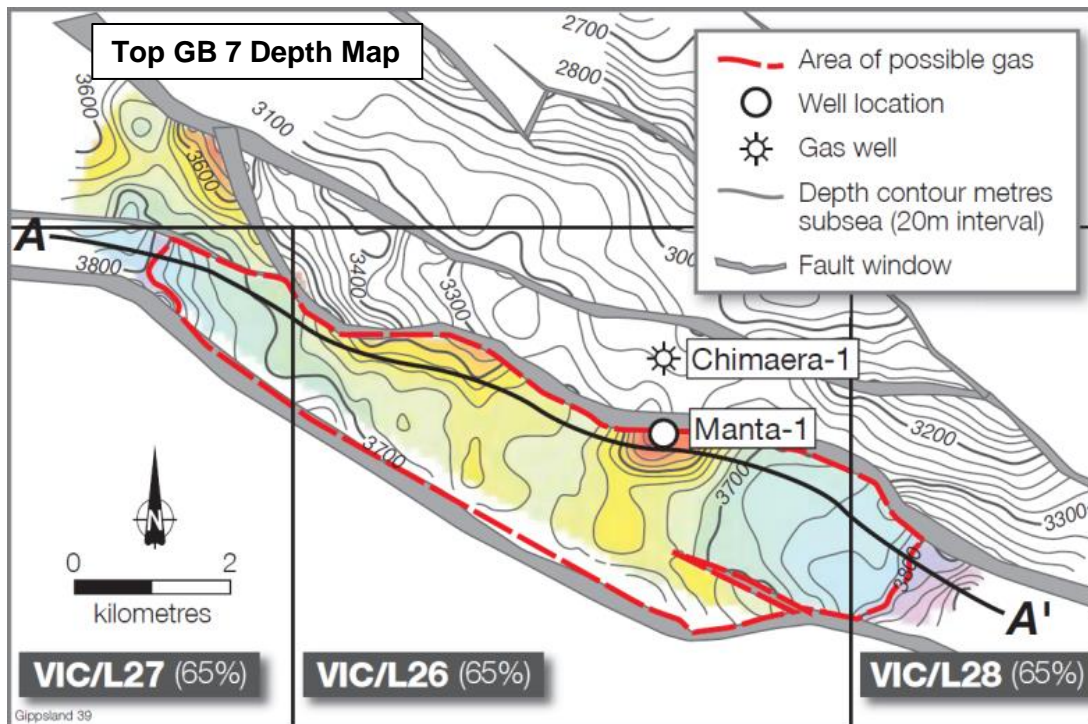
- Gas resource of 106 PJ 2C Contingent and Risked Prospective Resource of 10 PJ<sup>1</sup>
- Focus on Golden Beach reservoir, not Intra Latrobe accessed by BMG oil project
- COE Business case identified economic opportunity for Manta development
- Manta gas attracting enquiries from gas buyers
- Vic /L26, L27 and L28 Joint Venture
  - Cooper Energy 65% and Operator
  - Beach Energy 35%
- Technical analysis has identified additional potential in sandstone reservoirs underlying total depth of Manta-1



# Manta gas potential (Cooper Energy 65% & Operator)

## Gas potential in exploration targets below Manta gas field

- Untested Golden Beach reservoirs are identified within the same structure below proven gas in the Manta field
- Potential to evaluate multiple additional reservoir sections by drilling Manta-3 another 1,000 metres deeper than Manta-1



# FY16 first half at a glance

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## Strategy advancing as planned, oil price being managed effectively

### Gippsland Basin Gas Projects: moving ahead, contracting gas, resource estimates upgraded

- Sole FEED on schedule and under budget; 44% complete
- Sole Contingent Resource<sup>1</sup> upgraded 14% to 241 PJ (gross; COE share 121 PJ)
- Initial HOA for sale of Cooper Energy equity gas from Sole, further agreements in progress
- Manta gas prospectivity upgraded with targets below existing gas bearing reservoirs
- Data room process initiated to optimise funding and commercial alignment across projects

### Strategy execution: Australia-only business now in sight

- Divestment of Indonesian exploration acreage, process ongoing for production assets
- Progressive withdrawal from Tunisia

### Financial results: effective management in the current price environment

- Revenue of \$14.6 million, down 37% on lower oil prices and volumes
- Statutory net loss after tax \$(34.1) million vs H1 15 net loss of \$(58.0) million
- Underlying net loss after tax of \$(1.3) million, down from \$(0.4) million
- Cash and investments of \$30.2 million. Net proceeds of ~\$10 million from sale of Indonesian exploration assets anticipated
- Operating cash cost reduced 20%, general admin cash expenditure cut 10% annualised, capex forecast cut 20%, now \$30 - 32 million
- Solid hedge book provides price floor that averages A\$68.50/bbl for 50% of second half production at zero cost

# Profit contribution from oil business

## Profitable oil business being leveraged to build gas business

H1 16 \$ million

Oil	
Sales revenue	14.6
Gross profit	5.0
Gross profit / Sales revenue	34%
Exploration expense	-0.2
General Admin <sup>1</sup>	1.6
Underlying EBITDA	5.7
Underlying PBT	3.2
Income tax	(1.0)
<b>Oil Underlying NPAT</b>	<b>2.2</b>
<b>Gas<sup>1</sup> and Corporate<sup>1</sup> Underlying NPAT/(loss)</b>	<b>(3.6)</b>
<b>Cooper Energy total Underlying NPAT/(loss)</b>	<b>(1.3)</b>

<sup>1</sup> General administration costs allocated 27% to Oil; 35% to Gas and 38% to Corporate



# Hedging

Approximately 50% of second half production is hedged at an average floor price of A\$68.50/bbl

Hedge arrangements (bbl remaining):	H2 FY16	H1 FY17	H2 FY17	H1 FY18	Total
A\$80.00 – 90.57: zero cost collar options	60,000	-	-	-	60,000
A\$57.00 – A\$69.70: zero cost collar options	60,000	60,000	30,000		150,000
A\$54.45 floor + 50% above floor: zero cost participating swap	-	30,000	30,000	30,000	90,000
<b>Total</b>	120,000	90,000	60,000	30,000	300,000

The company is actively looking at opportunities to top up and extend its hedge profile to further protect against downside oil price scenarios while retaining exposure to higher oil prices.

# Capital expenditure; incurred and outlook

## First half increase driven by Gippsland Basin Gas

	Capex vs PCP \$ million			Revised capex guidance <sup>1</sup> \$ million			y.o.y. <sup>3</sup> change	
	15 H1	16 H1	Change	FY 15	FY16H2	FY16F		
Cooper Basin	4.3	0.8	- 3.5	Cooper Basin	8	2	3	-4
Otway Basin	0.7	0.1	-0.6	Otway Basin	1	~0 <sup>2</sup>	~0 <sup>2</sup>	-1
Gippsland Basin	1.6	8.6	+7.0	Gippsland Basin	9	13	22	+13
Indonesia	3.7	3.9	+0.2	Indonesia	8	1	5	-3
Tunisia	0.3	0.4	+0.1	Tunisia	1	1	2	1
<b>Total</b>	<b>10.6</b>	<b>13.8</b>	<b>+3.2</b>	<b>Total</b>	<b>27</b>	<b>17</b>	<b>30-32</b>	<b>+3-5</b>

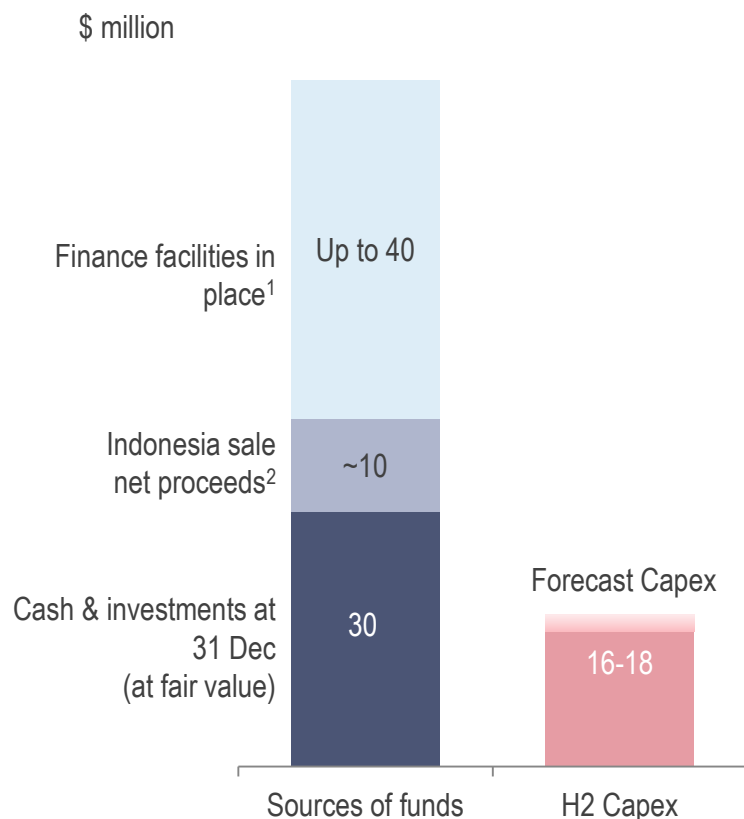
<sup>1</sup> Guidance numbers are approximate and rounded, as a result some totals and subtotals may not equal addition of numbers displayed

<sup>2</sup> Figures rounded to zero, expenditure anticipated to be less than \$0.5 million

<sup>3</sup> Year on year

# Funding & capital management

## Fully funded, cash & investments exceeding capex, plus finance facilities



<sup>1</sup> Comprises reserve based lending up to \$35 million and \$5 million for bank guarantees

<sup>2</sup> Subject to regulatory approval

<sup>3</sup> Details of hedging in place is provided in the appendices

### Fully funded for FY16

- Financial assets in place at 31 Dec 15 of \$30 million plus:
  - ~A\$10 million net proceeds from Indonesian exploration acreage divestment
  - finance facilities
  - cash flow from production
- Hedging in place; 50% of FY16 H2 production hedged at an average floor price of A\$68.50/bbl<sup>3</sup>

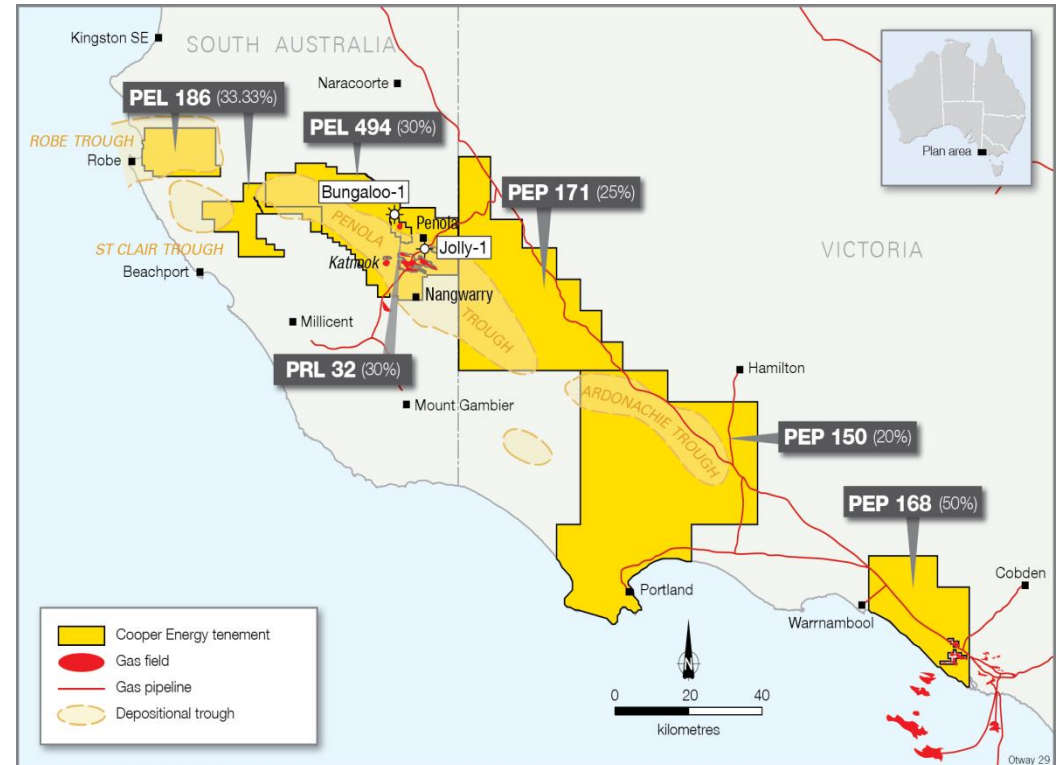
### Project funding strategy

- Data room initiative to align commercial interests and facilitate optimal funding
- Project finance for majority of capex on securing of threshold bankable contracts + FID
- Multiple funding options possible, including:
  - proceeds from equity alignment/interest sell down, other asset sales
  - project finance at joint venture level and/or corporate level
  - equity / equity-like funding

# Otway Basin

## Drilling results and analysis confirm prospectivity for conventional gas and shale potential

- Analysis of Jolly-1 and Bungaloo-1 well data in PEL 495 and PRL 32 has confirmed:
  - a deep conventional gas play in Lower Sawpit Formation
  - Casterton Formation unconventional shale gas play
- Victorian acreage subject of application to suspend and extend due to moratorium on onshore gas production
- Proposed activities
  - may drill deep conventional play in PEL 494/495 in FY17
  - rationalise portfolio and focus on key prospective areas



# Indonesia

## Realising value to concentrate resources on Australian opportunities

### Data room

- Initiated December quarter

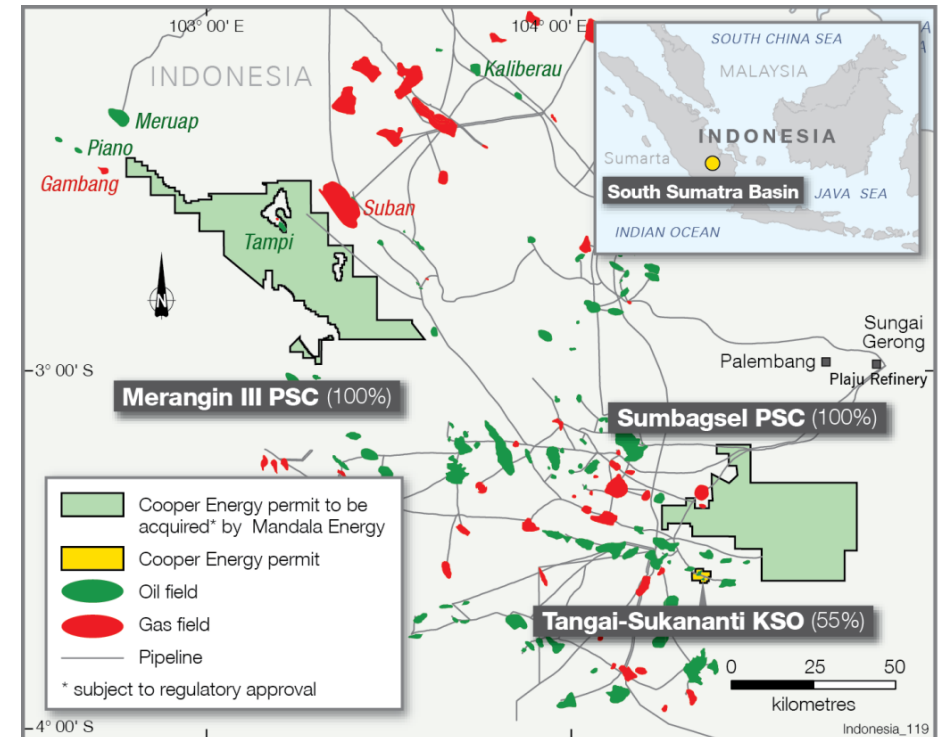
### Exploration acreage: Sumbagsel and Merangin III PSCs (COE 100%)

- Agreed sale to Mandala Energy for US\$8.25 million<sup>1</sup>
  - subject to Indonesian Government approval
- Expect transaction to complete within FY16
- Removes licence commitments for 2 wells plus seismic

### Production acreage: Tangai-Sukananti KSO (COE 55%)

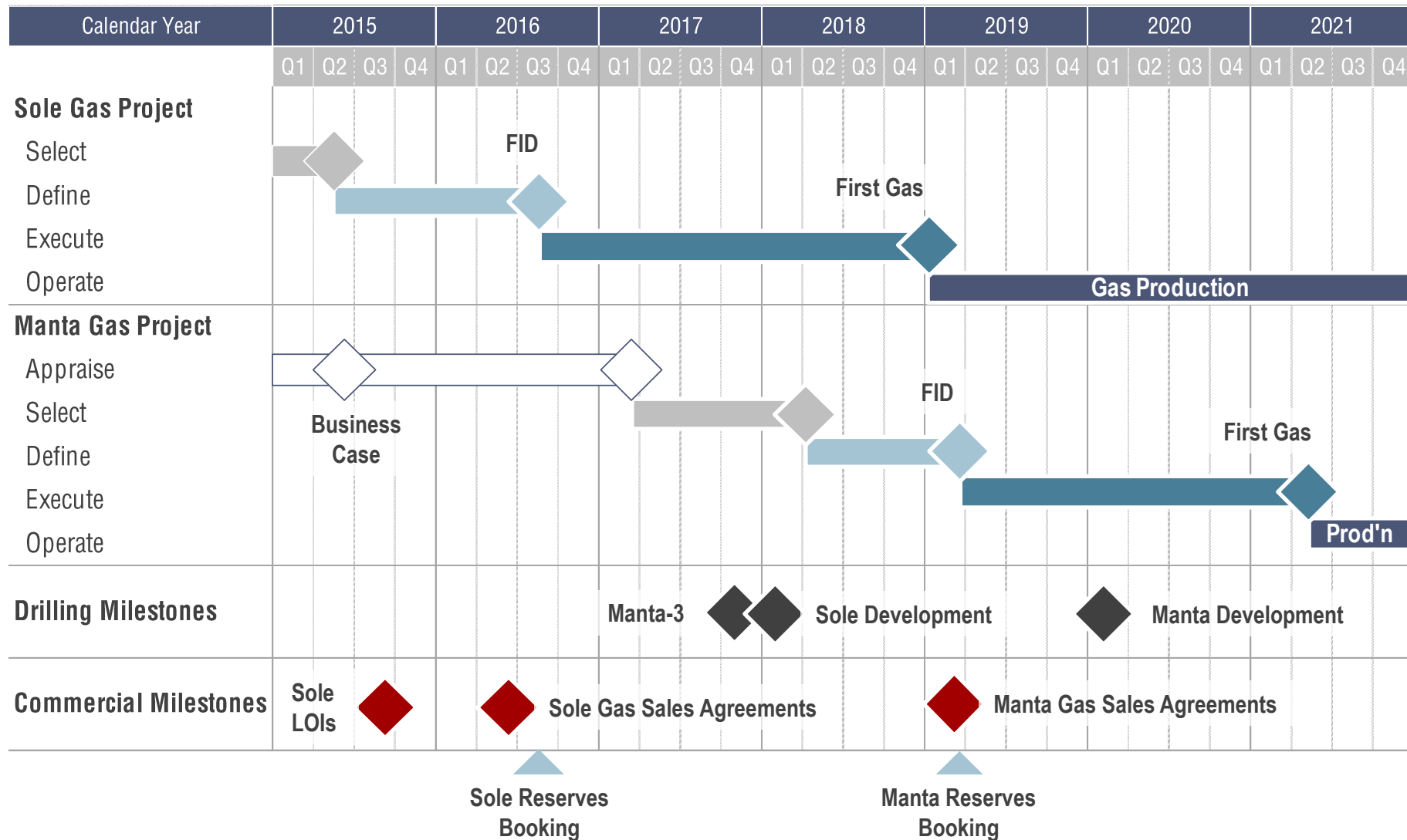
- Sales process ongoing with good interest levels
- Producing at 800 bopd (100% basis), with opportunity to increase to 2,000 bopd
- Operating cash cost of A\$35/bbl (FY16)

<sup>1</sup>Announced 10 February 2016



# Gippsland Gas Projects indicative<sup>1</sup> timeline

## Key commercial and project milestones for value accretion



<sup>1</sup> Indicative only and subject to review at key milestones and joint venture decisions

# Notes on calculation of Reserves and Resources

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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. Project and field totals are aggregated by arithmetic and probabilistic summation. Aggregated 1P or 1C may be a conservative estimate and aggregated 3P and 3C may be an optimistic estimate due to the effects of arithmetic summation. Totals may not exactly reflect arithmetic addition due to rounding.

## 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.

## Notes on calculation of Contingent Resources

### *Sole gas field*

Contingent Resources have been assessed using probabilistic simulation modelling for the Kingfish Formation at the Sole 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). The date of the Sole Contingent Resource Assessment is 26 November 2015 and the assessment was announced to the ASX on 26 November 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.

### *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 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.

## Cautionary Prospective Resource Statement

These estimated quantities of petroleum that may be potentially recovered by the application of future development projects relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation are required to confirm the existence of a significant quantity of potentially movable hydrocarbons.

# Abbreviations

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<b>\$, A\$</b>	Australian dollars unless specified otherwise
<b>Bbls</b>	barrels of oil
<b>boe</b>	barrel of oil equivalent
<b>bopd</b>	barrel of oil per day
<b>EBITDA</b>	earnings before interest, tax, depreciation and amortisation
<b>FEED</b>	Front end engineering and design
<b>FY</b>	Financial year; 12 months to 30 June
<b>H1</b>	Half year; 6 months ended 31 December
<b>kbbbls</b>	thousand barrels
<b>MMbbl</b>	million barrels of oil
<b>MMboe</b>	million barrels of oil equivalent
<b>NPAT</b>	net profit after tax
<b>PEL 92</b>	SA Cooper Basin acreage held by the PEL 92 joint venture now encompassed by Petroleum Retention Licences 85 – 104 (refer slide 7)
<b>1P reserves</b>	Proved reserves
<b>2P reserves</b>	Proved and Probable reserves
<b>3P</b>	Proved, Probable and Possible reserves
<b>1C, 2C, 3C</b>	high, medium and low estimates of contingent resources