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#### **ASX** release

8 October 2018

Ref: #049/18

#### 2018 Asia Roadshow Presentation

For information, attached is the presentation that Beach Energy will be taking on its 2018 Asia Roadshow this week in Hong Kong and Singapore. Also available from the Beach Energy website.

#### For further information contact the following on +61 8 8338 2833:

Investor Relations Nik Burns, Investor Relations Manager

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#### **COMPLIANCE STATEMENTS**



#### **Disclaimer**

This presentation contains forward looking statements that are subject to risk factors associated with oil, gas and related businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including, but not limited to: price fluctuations, actual demand, currency fluctuations, drilling and production results, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delays or advancements, approvals and cost estimates.

Underlying EBITDAX (earnings before interest, tax, depreciation, amortisation, evaluation, exploration expenses and impairment adjustments), underlying EBITDA (earnings before interest, tax, depreciation, amortisation, evaluation and impairment adjustments), underlying EBIT (earnings before interest, tax, and impairment adjustments) and underlying profit are non-IFRS measures that are presented to provide an understanding of the performance of Beach's operations. They have not been subject to audit by Beach's external auditors but have been extracted from audited financial statements. Underlying profit excludes the impacts of asset disposals and impairments, as well as items that are subject to significant variability from one period to the next. The non-IFRS financial information is unaudited however the numbers have been extracted from the audited financial statements.

All references to dollars, cents or \$ in this presentation are to Australian currency, unless otherwise stated. References to "Beach" may be references to Beach Energy Limited or its applicable subsidiaries. Unless otherwise noted, all references to reserves and resources figures are as at 30 June 2018 and represent Beach's share.

Certain FY19 planned activities are subject to joint venture approvals. References to planned activities beyond FY19 are subject to finalisation of work programs, government approvals, joint venture approvals and board approvals.

Due to rounding, figures and ratios may not reconcile to totals throughout the presentation.

#### Reserves disclosure

Beach prepares its petroleum reserves and contingent resources estimates in accordance with the Petroleum Resources Management System (PRMS) published by the Society of Petroleum Engineers. The reserves and contingent resources presented in this presentation were originally disclosed to the market in ASX release #034/18 from 2 July 2018. Beach confirms that it is not aware of any new information or data that materially affects the information included in this presentation and that all the material assumptions and technical parameters underpinning the estimates in the aforesaid market announcement continue to apply and have not materially changed.

Conversion factors used to evaluate oil equivalent quantities are sales gas and ethane: 5.816 TJ per kboe, LPG: 1.389 bbl per boe, condensate: 1.069 bbl per boe and oil: 1 bbl per boe. The reference point for reserves determination is the custody transfer point for the products. Reserves are stated net of fuel and third party royalties.

#### **Assumptions**

The outlook set out in this presentation is not guidance. The outlook is uncertain and subject to change. The outlook has been estimated on the basis of the following assumptions: 1. a US\$74.25/bbl Brent oil price in FY19 and a US\$70/bbl Brent oil price from FY20; 2. 0.77 AUD/USD exchange rate in FY19 and 0.75 AUD/USD exchange rate from FY20; 3. various other economic and corporate assumptions; 4. assumptions regarding drilling results; and 5. expected future development, appraisal and exploration projects being delivered in accordance with their current expected project schedules. These future development, appraisal and exploration projects are subject to approvals such as government approvals, joint venture approvals and board approvals. Beach expresses no view as to whether all required approvals will be obtained in accordance with current project schedules.

FY19 guidance and 5 year outlook estimates set out in this presentation have been prepared on the basis that the proposed sale of a 40% interest in its Victorian Otway Basin assets to O.G. Energy (announced to the ASX on 5<sup>th</sup> October 2018) completes in Q3 FY18. Completion remains subject to satisfaction of customary conditions, including FIRB approval, some of which are outside of the control of Beach and as a result the timing of settlement may differ from the assumption used in this release.



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# SUCCESSFUL TRANSITION WITH STRONG GROWTH PLATFORM

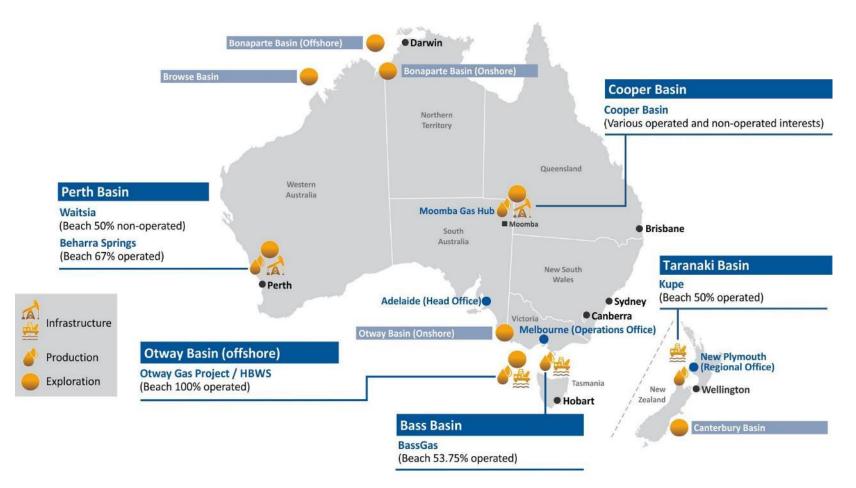
BEACH

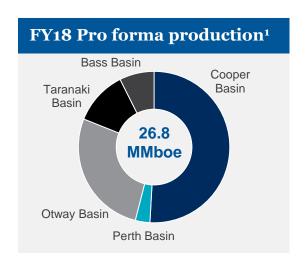
- Low cost operator focussed on synergy and margin extraction
- Clear strategy to increase shareholder value
- Five year target<sup>5</sup>:
  - ✓ Production growing to 30 36 MMboe¹
  - √ > 100% reserves replacement<sup>2</sup>
  - ✓ ROCE 17 20%³
  - √ > \$2.3 billion cumulative free cash flow<sup>4</sup>
- Disciplined capital allocation process
- 1. Annual production target range of 34 to 40 MMboe in FY23.
- 2. Reserves replacement ratio targeted to average 100% for the five year period FY19 to FY23. Reserve replacement ratio calculated as 2P reserves additions divided by production
- 3. Return on capital employed (ROCE) defined throughout this presentation as underlying net profit after tax (underlying NPAT) divided by the average of opening total equity and closing total equity.
- 4. Free cash flow defined throughout this presentation as cash flow from operating activities less cash flow from investing activities (excluding acquisitions and divestments)
- 5. Five year targets are presented on the basis the sale of a 40% interest in the Otway Basin is completed

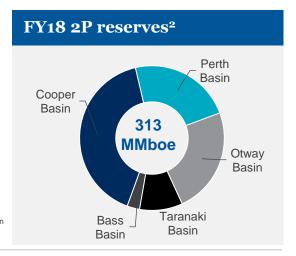
**Financial** Market Strength and Access **Discipline Operational** Value-accretive **Excellence** Growth **Portfolio** 

# BEACH ENERGY PORTFOLIO EXPANDED FOOTPRINT WITH FIVE PRODUCTION HUBS AND SIGNIFICANT GAS PROCESSING INFRASTRUCTURE









<sup>1.</sup> Pro forma FY18 defined as a Beach FY18 reported production of 19.0 MMboe plus H1 FY18 Lattice production of 7.9 MMboe. H1 FY18 Lattice production was not consolidated within the accounts of Beach. This information is provided for information purposes only and should not be relied upon.

<sup>2. 2</sup>P reserves are stated as of 30 June 2018. Reserves have not been adjusted for the announced sale of a 40% interest in the Otway Basin

#### **EXPERIENCED EXECUTIVE TEAM IN PLACE**



<b>Executive Role</b>	Name	Commenced	Experience	Prior experience	
Chief Executive Officer	Matt Kay	May 2016	> 25 years	Oil Search, Woodside, Santos	
Chief Financial Officer	Morné Engelbrecht	September 2016	> 18 years	InterOil, Newcrest, PwC	
Chief Operating Officer	Dawn Summers	February 2018	> 25 years	Origin (Lattice), BP, Genel Energy	
Group Executive  – Development	Geoff Barker	February 2018	> 30 years	RISC, Woodside, Shell	
Group Executive  – Exploration and Appraisal	Jeffrey Schrull	January 2017	> 30 years	Chevron, Addax Petroleum	
Group Executive  – Corporate Strategy & Commercial	Lee Marshall	January 2018	> 20 years	Woodside	
Group Executive – Health, Safety, Environment and Risk	Brett Doherty	February 2018	> 30 years	INPEX, Ras Gas, Santos	
A driven team with significant offshore and international experience					

A driven team with significant offshore and international experience

## BEACH ENERGY SINCE 2016 THE EMERGENCE OF A LEADING MID-CAP E&P COMPANY



#### **Drillsearch merger**

- 100% ownership in ex PEL 91 and ex PEL 106
- Merger synergies of \$40 million p.a.

#### **Cost and efficiency focus**

- Reduction in operating costs
- Western Flank oil improvement
- Collaboration with Cooper Basin participants

#### Lattice acquisition

- Expansion to five production hubs
- Offshore capabilities added
- Merger synergies of \$60 million p.a.

FY16

**FY17** 

**FY18** 

#### **Key outcomes**

- 9.7 MMboe production
- 60 MMboe year-end 2P reserves
- \$233 million operating cash flow
- \$36 million underlying NPAT
- Bauer facility expansion

#### **Key outcomes**

- 10.6 MMboe production
- 75 MMboe year-end 2P reserves
- \$319 million operating cash flow
- \$162 million underlying NPAT
- Middleton gas facility expansion

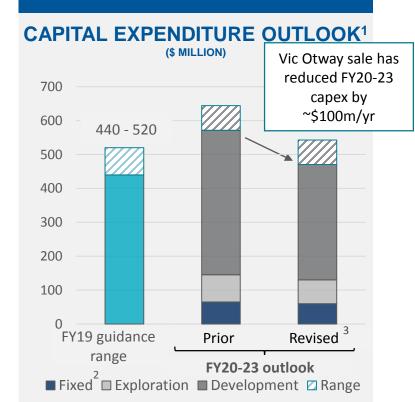
#### **Key outcomes**

- 19.0 MMboe production
- 313 MMboe year-end 2P reserves
- \$663 million operating cash flow
- \$302 million underlying NPAT
- Expanded from 1 to 5 operated basins

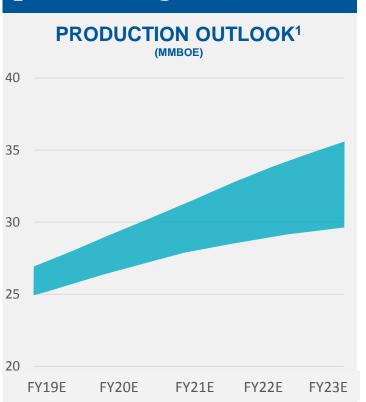
# READY TO UNLOCK OUR RESERVES AND CASH FLOW POTENTIAL



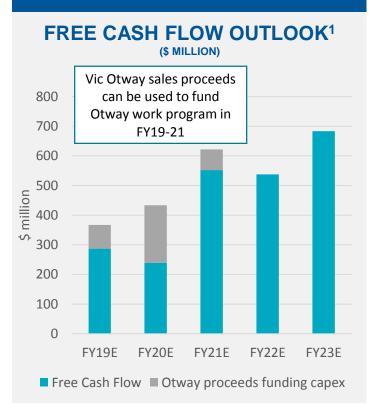
## Disciplined discretionary investment...



## ...driving medium term production growth...



## ...generating > \$2.6 billion of free cash flow over 5 yrs



Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Outlook is presented on the basis that the proposed sale of a 40% interest in the Otway Basin is completed

<sup>2. &</sup>quot;Fixed" refers to stay-in-business capital expenditure. 19% of FY19 capex guidance is classified as fixed.

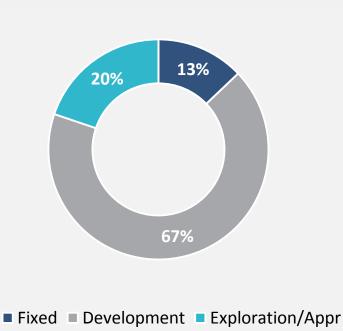
Revised capex is based on sale of 40% interest in Victorian Otway basin assets.

# READY TO UNLOCK OUR RESERVES AND CASH FLOW POTENTIAL



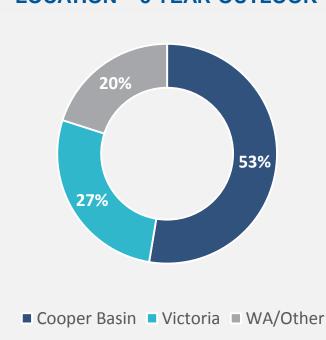


### CAPITAL INVESTMENT SPLIT 5 YEAR OUTLOOK<sup>1</sup>



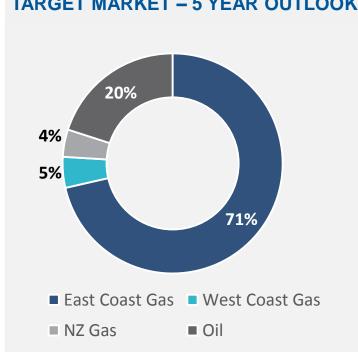
#### Development priorities: Cooper Basin and Victoria

#### DEVELOPMENT CAPEX SPLIT BY LOCATION – 5 YEAR OUTLOOK<sup>1</sup>



## **Development capex targeting east coast gas**





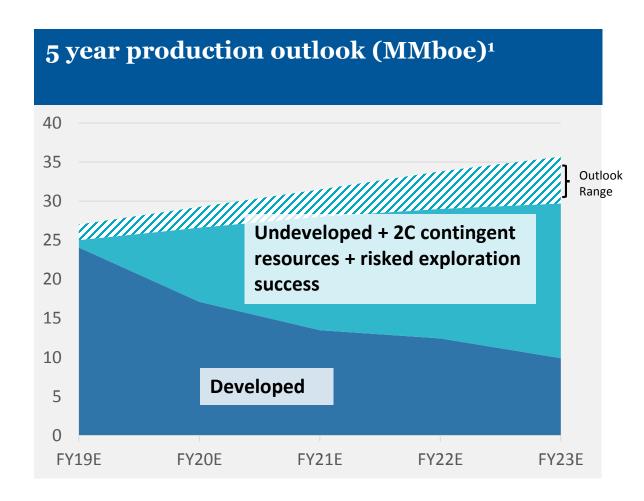
Estimated based upon Beach outloo

1.Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Outlook is presented on the basis that the proposed sale of a 40% interest in the Otway Basin is completed

#### INVESTMENT TO GROW PRODUCTION



- ✓ Over two thirds of discretionary investment to generate IRR > 40%
- ✓ Over two thirds of discretionary oil investment to generate IRR > 100%
- ✓ Key variables in 5 year production outlook:
  - Pace and results from Cooper Basin JV drilling activity
  - Western flank appraisal and exploration results
  - Timing and size of Perth Basin development
  - Exploration results in Victorian Otway

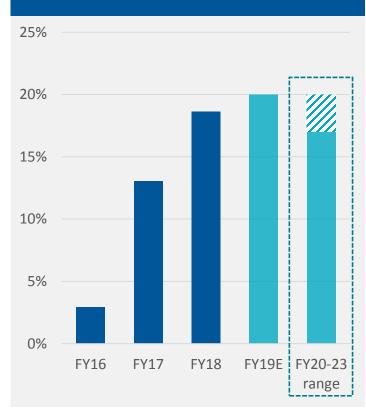


<sup>1.</sup> Estimated based upon Beach outlook. Outlook is not guidance. Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Outlook is presented on the basis that the proposed sale of a 40% interest in the Otway Basin is completed

#### **ROCE AND NET GEARING OUTLOOK**



#### 5 year ROCE outlook (%)<sup>1</sup>



- ROCE improvement driven by highly accretive growth investment, oil prices and higher gas prices
- Maintaining high ROCE requires active balance sheet management
- Positive free cash flow to drive net gearing well below target net gearing range, prior to any potential Otway sale proceeds
- Beach assessing options for capital management

#### Net gearing update

- Net gearing at 30 June 2018 was 25.9%
- Beach forecasts net gearing to decline below 20% by the end of CY18
- Beach target gearing range is 15-25%

<sup>.</sup> Estimated based upon Beach outlook. Outlook is not guidance. Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Outlook is presented on the basis that the proposed sale of a 40% interest in the Otway Basin is completed.

## VICTORIAN OTWAY ASSET SALE BEACH TO SELL A 40% INTEREST IN OTWAY PERMITS TO O.G. ENERGY

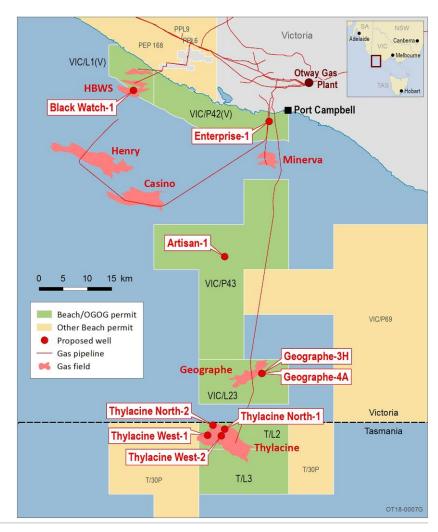


#### **Transaction overview**

- Purchaser is O.G. Energy, the energy division of Ofer Global
- Sale includes interests in Otway Gas Plant, existing gas fields (Geographe, Thylacine, Halladale, Speculant, Black Watch) and exploration targets Enterprise and Artisan.
- Total consideration is \$344 million (cash)
- Effective date of the transaction is 1 July 2018
- The sale is subject to customary terms and conditions, including FIRB.
   Completion is currently expected to occur Q3 FY19

#### Strategic rationale for sale

- Brings in aligned partner, committed to rapid development and exploration
- Reduces Beach share of FY19-23 expenditure by ~\$450 million
- Proceeds from sale can be used to fund a portion of Beach's future capex
- Beach to retain operatorship and 60% interest



## FY19 GUIDANCE UPDATED TO REFLECT OTWAY SALE



	Prior	Updated
FY19 production	26 – 28 MMboe	25 – 27 MMboe
FY19 capex	\$460 – 540 million	\$440 – 520 million
FY19 DD&A	\$400 – 450 million	\$395 – 445 million
FY19 EBITDA	\$1.1 – 1.2 billion	\$1.05 – 1.15 billion
Net gearing target at end CY18	< 20%	< 20%

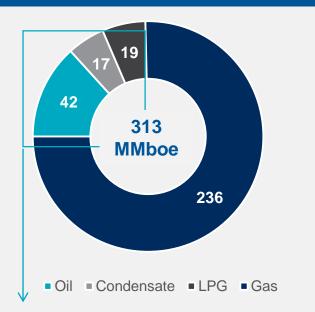
Only 7% of FY19 production is derived from FY19 capital expenditure. The majority of FY19 capex is driving medium term production growth

Please note: FY19 guidance has been prepared on the basis that (for accounting purposes) Beach will continue to report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report 60% interest from H2 FY19 on completion. An adjustment will be made to the purchase price at settlement to account for cash flows occurring between the valuation date of the transaction and settlement. Completion remains subject to satisfaction of customary conditions precedent, which are outside of the control of Beach and as a result the timing of settlement may differ from the assumption used in this release

#### RESERVES EXPOSED TO HIGH MARGIN MARKETS

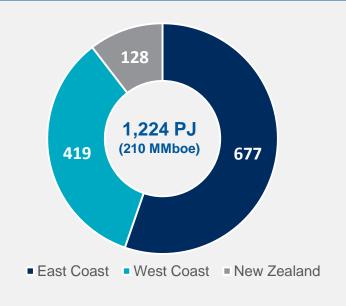






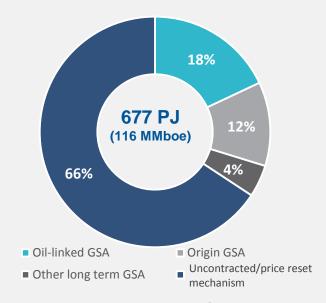
 25% of 2P reserves are liquids, expected to contribute > 60% of Beach FY19E revenues

## Future gas production by location<sup>2</sup>



 55% of Beach's gas reserves are sold in the East Coast gas market<sup>3</sup>

## Future East Coast Gas supply by sales agreement<sup>2</sup>



 Two thirds of East Coast gas reserves are either uncontracted or have price reset mechanisms

#### Access to high margin markets has increased Beach underlying EBITDA margin to > 60%

<sup>1.</sup> All reserves quoted are as per Beach 2P reserves statement as at 30 June 2018. 2P reserves are as per Beach reserves statement dated 2 July 2018 and have not been adjusted for the announced sale of a 40% interest in the Victorian Otway permits.

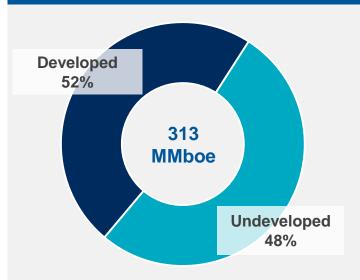
<sup>2.</sup> Future production is presented on the basis the proposed 40% Otway sale is completed.

Reserves sold in the East Coast gas market, refers to Beach's gas reserves located in Western Flank Gas, Cooper Basin JV, Other Cooper Basin, Otway Basin and Bass Basin.

# BEACH TO UNLOCK RESERVES POTENTIAL OVER NEXT 5 YEARS

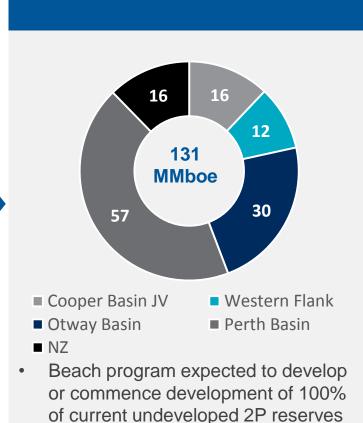




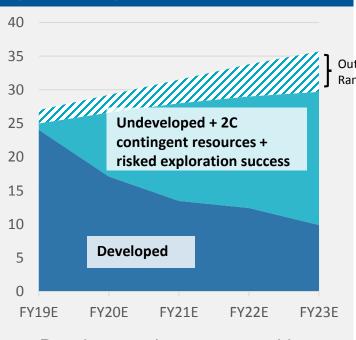


- 48% of 2P reserves at 30 June 2018 are classified as undeveloped
- Beach focus is on bringing these undeveloped reserves to market

#### **Undeveloped 2P reserves**<sup>1</sup>



#### Production outlook (MMboe)<sup>2</sup>



 Development investment to drive medium term production growth

Beach Energy Limited | ABN 20 007 617 969

over the next 5 years

<sup>1.</sup> All reserves quoted are as per Beach 2P reserves statement as at 30 June 2018. Reserves have not been adjusted for the announced sale of a 40% interest in the Victorian Otway permits

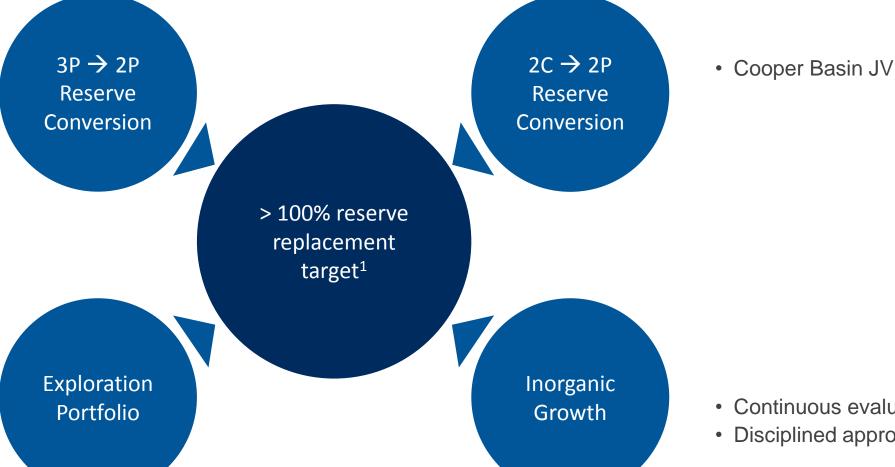
Estimated based upon Beach outlook. Outlook is not guidance. Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Outlook is presented on the basis that the proposed sale of a 40% interest in the Otway Basin is completed.

#### MULTIPLE AVENUES TO REPLACE **OR GROW 2P RESERVES**





Western Flank Gas



- Cooper Basin
- Otway Basin
- Perth Basin
- Frontier

Continuous evaluation

Disciplined approach

<sup>1.</sup> Reserves replacement ratio targeted to average 100% for the five year period FY19 to FY23. Reserve replacement ratio calculated as 2P reserves additions divided by production ((closing 2P reserves minus (opening 2P reserves minus production)) / production)

#### **OUR VISION, PURPOSE AND VALUES**



#### **Our vision**

We aim to be Australia's premier multi-basin upstream oil and gas company

#### Our purpose

To deliver sustainable growth in shareholder value

#### **Our values**

Our values define us, guide our actions, our decisions and our words

Safety Safety takes precedence in everything we do

**Creativity** We continuously explore innovative ways to create value

**Respect** We respect each other, our communities and the environment

**Integrity** We are honest with ourselves and others

**Performance** We strive for excellence and deliver on our promises

**Teamwork** We help and challenge each other to achieve our goals

We have delivered on promises since 2016 and intend to continue

## KEY TAKEAWAYS A COMPELLING FIVE YEAR OUTLOOK<sup>1</sup>



#### Portfolio provides growth

✓ Production growing to 30 - 36 MMboe

#### **High return / low risk investment**

✓ Over two thirds of discretionary investment > 40% IRR²

#### **Profitability**

✓ ROCE target 17 - 20%

#### Free cash flow generation

✓ Target of > \$2.3 billion in cumulative free cash flow

#### Debt free

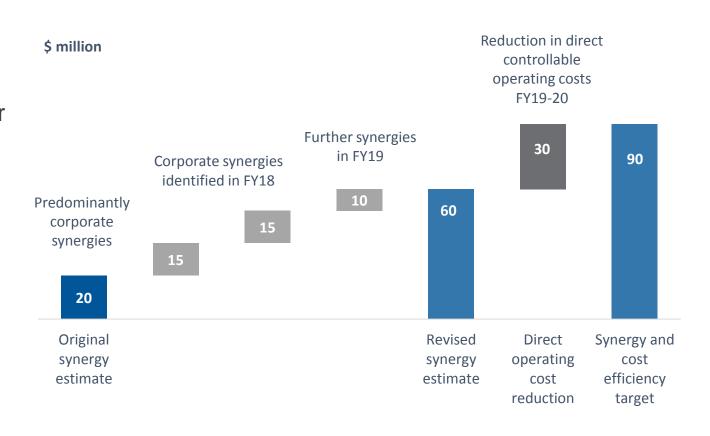
✓ Provides capital management optionality

1. Estimated based upon Beach outlook. Outlook is not guidance. Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Outlook is presented on the basis that the proposed sale of a 40% interest in the Otway Basin is completed. Refers to discretionary investment in FY19. Discretionary investment defined as capital expenditure not related to stay in business activities. Internal rate of return (IRR) calculated based on internal assumptions, set out on the "Compliance Statements" slide.

## SYNERGY AND COST EFFICIENCY TARGETS FOCUS TURNS TO DIRECT CONTROLLABLE OPERATING COSTS



- Better than expected synergy and efficiency opportunities have emerged post acquisition
- Lower head count, reduce office costs, better integration benefits
- Realised synergies at end of FY18 was \$37 million
- Targeting \$60 million of synergy and operating efficiencies by the end of FY19
- Focus has turned to direct controllable operating costs
- Targeting \$30 million reduction in direct controllable operating costs by the end of FY20

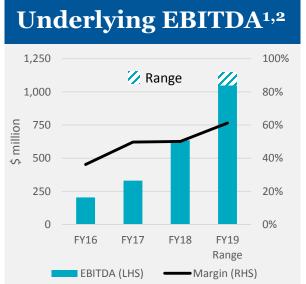


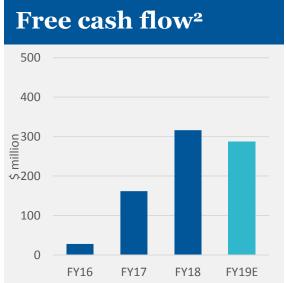
## FINANCIAL STRENGTH AND DISCIPLINE TRACK RECORD OF DELIVERY

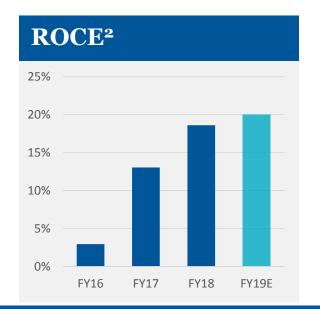


- Strong underlying EBITDA margin growth
- Free cash flow growth and double digit free cash flow yield
- Prudent balance sheet management targeting
   20% net gearing by end of CY18

- Continuing growth in return on capital employed
- 141% CAGR in underlying EPS from FY16 to FY18









#### A US\$10/bbl move in Brent oil price changes FY19 operating cash flow by \$80 million<sup>3</sup>

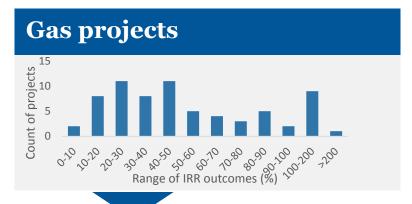
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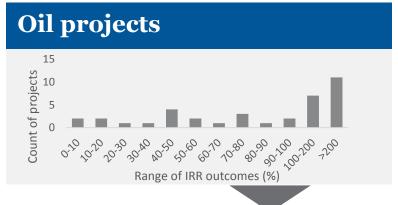
<sup>1.</sup> Underlying results in this presentation are categorised as non-IFRS financial information provided to assist readers to better understand the financial performance of the underlying operating business. They have not been subject to audit by Beach's external auditors. The information has been extracted from the audited 2. FY19 guidance has been prepared on the basis that (for accounting purposes) Beach will continue to report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway assets in H1 FY19 and then report beneficial ownership of a 100% interest in its Victorian Otway

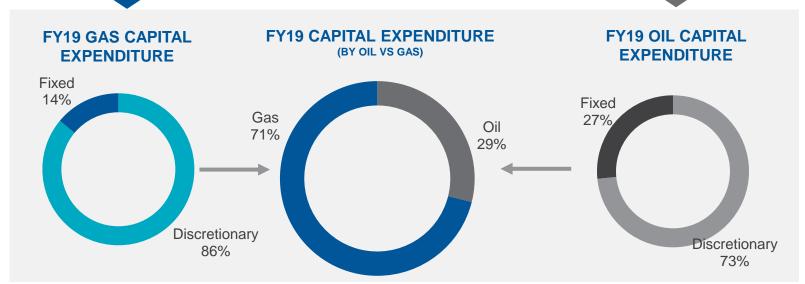
<sup>3.</sup> Prior to the impact of any oil hedging. Refer to appendices for details of Beach's oil hedging position as at 1 July 2018

## FINANCIAL STRENGTH AND DISCIPLINE OIL AND GAS PROJECT RETURNS









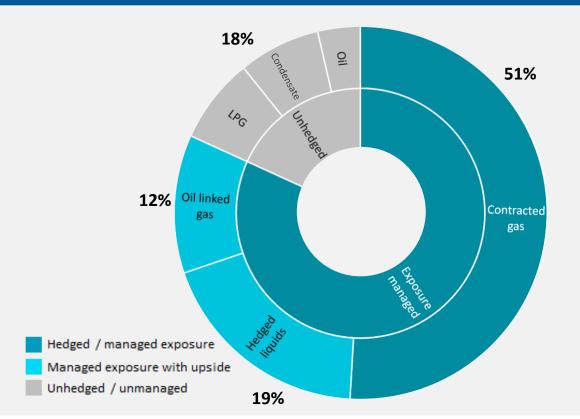
- > 67% all discretionary capex to generate IRR > 40%¹ with remainder
   > WACC
- > 67% of oil discretionary investment to generate IRR > 100%<sup>1</sup>
- Supports our five year production target
- < 7% FY19 production driven by FY19 capex
- Supports our five year reserves replacement target of > 100%
- ~80% of expenditure is discretionary
- ~35% of discretionary expenditure to be spent on exploration/appraisal activities

<sup>1.</sup> Refers to discretionary investment in FY19. Discretionary investment defined as capital expenditure not related to stay in business activities. Internal rate of return (IRR) calculated based on internal assumptions. Refer to the "Compliance Statements" slide for further detail regarding assumptions.

## FINANCIAL STRENGTH AND DISCIPLINE COMMODITY PRICE EXPOSURE



# **FY19 Production**Market exposure to commodity prices<sup>1</sup>



- Low commodity price risk exposure with upside
- Cashflow underpinned by strong long term gas contracts and repricing
- > 60% of cashflow in FY19 from liquids exposure
- Additional cashflow from potential Otway sell-down to further de-risk future cash flows
- FY19 break even oil price <US\$45/bbl when capital expenditure at mid-point of guidance
- FY19 break even oil price <US\$15/bbl if exploration expenditure is excluded</li>
- ~18% unhedged liquids position with full upside exposure
- Hedged volumes begin to re-participate in oil price upside at an oil price of > \$100/bbl

1. Source: Beach data

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## KEY COMMODITY MARKET EXPOSURE BEACH EXPOSED TO FOUR KEY COMMODITY MARKETS



#### Strong commodity market fundamentals, providing revenue portfolio diversity



#### **East Coast gas**

- Currently 15% of market supply<sup>1</sup>
- LNG price convergence



#### **West Coast gas**

- Stable, large market
- Scope for incremental demand growth



#### **Global liquids**

- 67% of FY18 revenue
- Australia's second largest oil producer<sup>2</sup>



#### **New Zealand gas**

- Kupe supplies 14% of market<sup>3</sup>
- Tightening gas supply

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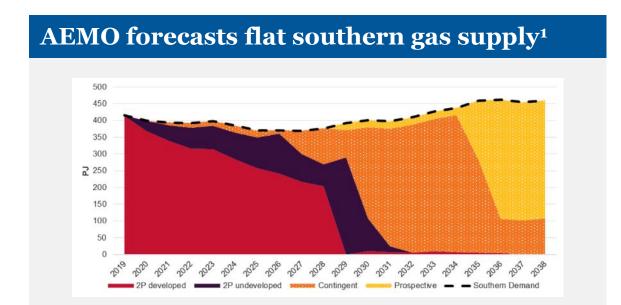
<sup>1.</sup> Calculated as Beach's expected FY19E East Coast gas sales volumes as a percentage of average 2018 and 2019 forecast total Qld., NSW, Vic. and SA gas consumption, as forecast by the Australian Energy Market Operator (AEMO) in its National Gas Forecasting Report (NGFR) from June 2018. This estimate is based on Beach forecast gas production prior to the impact of the sale of a 40% interest in Beach's Victorian Otway assets.

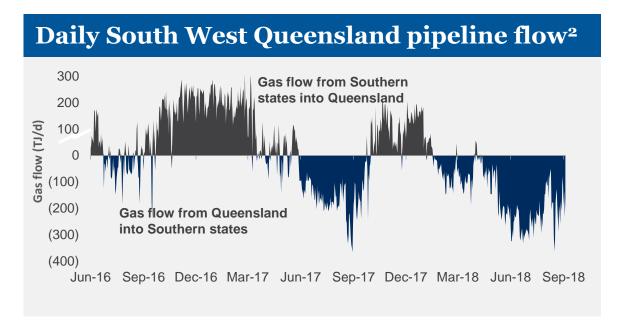
<sup>2.</sup> Source: EnergyQuest. June quarter data.

<sup>3.</sup> Source: Public information.

## EAST COAST GAS MARKET SOUTHERN MARKETS INCREASINGLY RELIANT ON LNG SUPPLIES







Four LNG import terminals known to be under consideration ACCC: Gas prices in the East Coast gas market being shaped by international LNG

<sup>1.</sup> Source: AEMO 2018 Gas Statement of Opportunities, June 2018.

<sup>2.</sup> Source: AEMO gas bulletin board.

## EAST COAST GAS MARKET POTENTIAL COST OF IMPORTED LNG



**New** Notional

Liquefaction US\$2.50/MMBtu

\$11.50-15.75

Approximate cost (A\$/GJ) of LNG into South Eastern Australia from Asia based on range of recent spot prices

\$12.50 GJ

Approximate cost (A\$/GJ) of LNG from Asia assuming long term contract priced at 12.5% of Brent

\$10.20 GJ Notional cost (A\$/GJ) of LNG from the US (requiring long term offtake commitment to underwrite new liquefaction capacity)

Asian spot LNG = US\$8.00 -11.20/MMBtu

Shipping US\$1.50/MMBtu

Henry Hub

US\$3.00/MMBtu

Regasification of A\$1.00/GJ

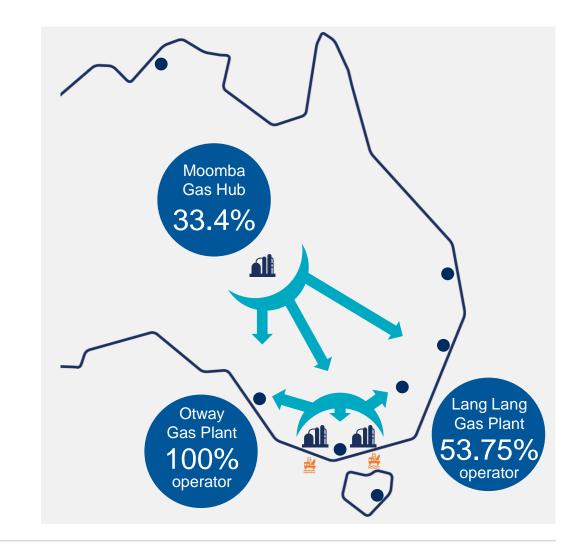
Current LNG market dynamics + regasification cost points to LNG delivered price > \$10/GJ

Beach estimates. Henry Hub price is a long term assumption for purpose of example only, US liquefaction cost based on Beach estimate of new capacity development, US-East coast shipping cost Beach estimate, 1 MMBtu = 1.055 GJ, AUD/USD = 0.72, Asian range of delivered spot prices based on US\$8-11.20/MMBtu based or public reports, long term Asian LNG price based on Beach estimated 12.5% slope to Brent.

## EAST COAST GAS MARKET SUPPLYING THE MARKET IS A STRATEGIC IMPERATIVE



- Beach is a material owner of critical gas infrastructure
- Three basins and infrastructure hubs supplying East Coast gas
- Currently 15% domestic market share<sup>1</sup>
- Strong demand for Beach's uncontracted sales gas, confirming ACCC reported 2019 producer price range \$8.75 - 11.03/GJ<sup>2</sup>
- Exploration, appraisal and development activities in Cooper and Otway basins are focussed on bringing more gas to market



Source: ACCC Gas Inquiry 2017–2020 Interim report July 2018.

<sup>1.</sup> This estimate is based on Beach forecast gas production prior to the impact of the sale of a 40% interest in Beach's Victorian Otway assets

## EXPOSURE TO EAST COAST GAS PRICES AN ATTRACTIVE LONG-TERM PRICING OUTLOOK



## **Current east coast volumes**

#### Re-contracted / re-priced volumes<sup>2</sup>

Beach average realised price:

<u>FY18</u> \$6.57/GJ



 Annual step-ups and CPI adjustments of Lattice contracts

- Majority of existing East Coast volumes re-priced or re-contracted at end of 2021
- Existing Beach oil-linked GSA exposed to oil price upside until re-contracted in 2025
- Beach capital investment supported by market dynamics

AEMO forecasts no supply gaps before 2030 as long as yet undeveloped reserves come online<sup>1</sup> Longer term, requires exploration and development to deliver contingent and prospective resources to market to meet demand<sup>1</sup>

Supportive near-term and long-term market fundamentals

<sup>1.</sup> Source: 2018 Gas Statement of Opportunities, AEMO – June 2018

<sup>2.</sup> Recontracted / re-priced volumes are presented on the basis the proposed sale of a 40% interest in Beach's Victorian Otway assets completes

## WEST COAST GAS MARKET WAITSIA OPTIMALLY POSITIONED



#### **Short term:**

 WA domestic gas market expected to remain balanced

#### **Medium term:**

- Declining production and reduced North West Shelf domestic gas supply to tighten domestic market
- Additional supply will be required and prices are expected to firm
- New supply must come from new developments or additional LNG domestic gas commitments

#### Waitsia ideally positioned to capture market:

- ✓ Low unit cost gas
- ✓ Low complexity development
- √ Fast project execution

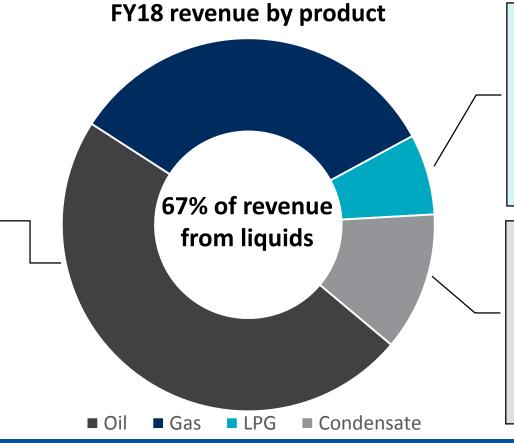
## Aligned with operator Mitsui brings benefits to the Waitsia joint venture:

- ✓ Multinational company with decades of E&P experience
- ✓ Long history of investment in Australian oil & gas

## GLOBAL LIQUIDS MARKET PREMIUM PRODUCTS A KEY REVENUE CONTRIBUTOR



- Second largest producer of <u>Australian oil</u> with 14.6% of production<sup>1</sup>
- 48% of FY18 revenue from crude oil
- 14% premium to Brent realised in FY18<sup>2</sup>
- Cooper crude is a light, sweet premium crude in the Asian market



 LPG produced from Cooper, Otway, Kupe and Bass

 Realised average price in line with Saudi benchmark

- Condensate produced from Cooper, Otway, Kupe and Bass
- Realised average price in line with Brent

Liquids production is expected to contribute more than 55% of group revenue over the next 5 years

Source: EnergyQuest. June quarter data.

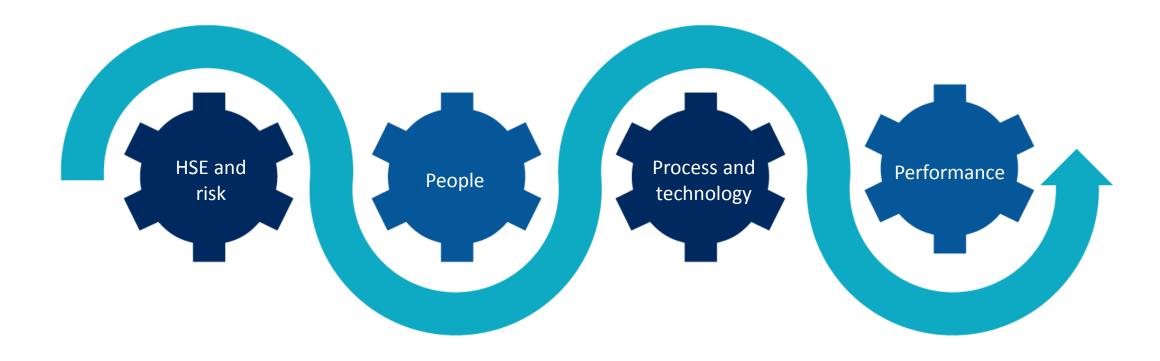
<sup>2.</sup> In AUD terms, based on total reported Beach crude oil revenue.

Estimated based upon Beach outlook. Outlook is not quidance. Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Any changes to the underlying assumptions could cause actual reported results to differ materially to the outlook presented.



## OPERATIONAL EXCELLENCE DELIVERY OF VALUE THROUGH SAFE, RELIABLE AND EFFICIENT OPERATIONS





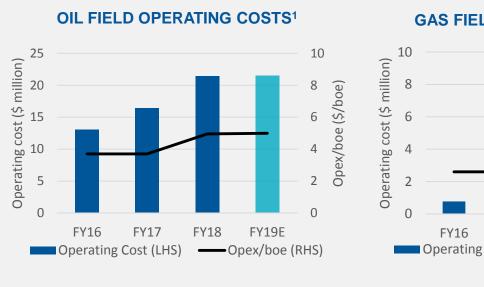
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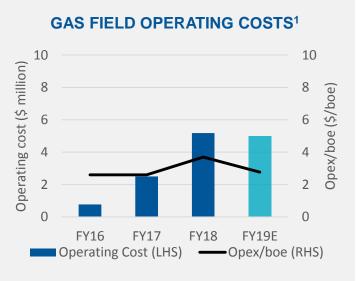
## THE BEACH APPROACH TRACK RECORD OF LOW COST COOPER BASIN OPERATIONS



- ✓ Decades of Cooper Basin experience
- ✓ Safe operation of over 130 oil and gas wells and multiple facilities
- ✓ Own critical processing infrastructure
- ✓ Low cost operator in the basin, driving efficiency
- Strong collaboration with JV parties delivering efficiencies

#### **Cooper Basin operated performance**



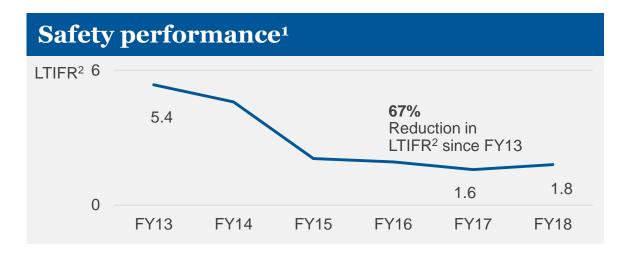


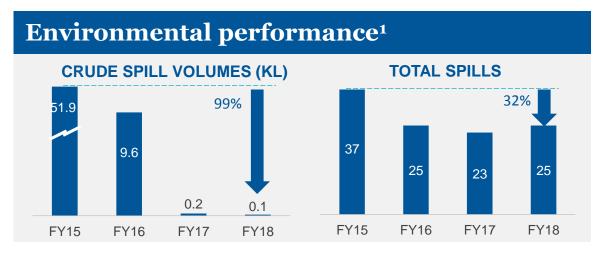
#### Beach has successfully kept Cooper Basin field unit operating costs below \$5/boe

<sup>1.</sup> Source Beach data. Field operating costs defined as operating costs before tariffs, tolls and royalties. Estimates based upon Beach outlook. Outlook is not guidance. Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Any changes to the underlying assumptions could cause actual reported results to differ materially to the outlook presented.

## OUR TOP PRIORITY STRONG SAFETY AND ENVIRONMENTAL PERFORMANCE A KEY PRIORITY







#### **Maintaining strong HSE performance**

- Safety: Zero contractor LTIs for FY18
- Environment: Lowest ever crude spill volumes
- Process safety review across 5 basins complete with no significant risk findings

# Loss of containment (gas) 10 8 6 4 2 0 Oct-16 Jan-17 Apr-17 Jul-17 Oct-17 Jan-18 Apr-18 Jul-18

<sup>1.</sup> Includes Lattice assets from 1 January 2018.

<sup>2.</sup> LTIFR: Lost Time Injury Frequency Rate, calculated as lost time injuries per million hours worked (Beach employees and contractors).

<sup>3.</sup> Based on Process Safety Events as defined within API 754/IOGP 456.

## OPERATIONAL EXCELLENCE



#### **IMPROVING BASE PRODUCTION USING INDUSTRY BEST PRACTICE &TECHNOLOGY**

#### **Productivity**



✓ Advanced ProcessControl

✓ Secondary recovery

 ✓ Technical Limit and de-bottlenecking techniques  Automation of steady state operations, efficient start-up and reduced downtime

Advanced well completions and artificial lift in the Cooper Basin

- Optimising fuel gas and reducing emissions at Kupe
- More efficient power supply strategies in the Cooper Basin
- Debottlenecking of offshore water handling capacity on Yolla

# OPERATIONAL EXCELLENCE DRIVING A SUSTAINABLE REDUCTION IN DIRECT OPERATING COSTS



### **Operating Cost**

- Advanced Inspection techniques
- ✓ Smart, risk-based maintenance "scrub"
- ✓ JV Partner and Basin supply chain & logistics synergies

- Drone technology Offshore Platform Inspections
- Advanced Digital Radiographic techniques CUI inspections

- Optimising maintenance activity, frequencies, planning, tool time
- Fast, real time, digital remote data collection and analytics

- Warehousing, spares and contractor synergies in the Cooper Basin
- Helicopter, vessel & vehicle optimisation in CB, NZ and Victoria

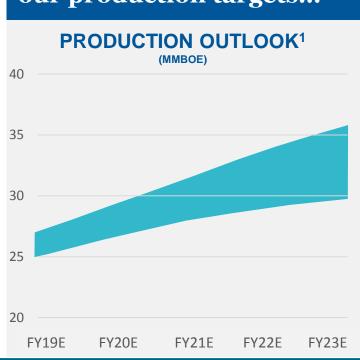
### FIVE YEAR OUTLOOK – FACILITY RELIABILITY BUILDING A FOUNDATION FOR THE FUTURE



### Higher operated facility reliability...



### ...will help Beach achieve our production targets...



### ...and generate higher revenue and production

- Beach is targeting 98% facility reliability by the end of FY20
- FY18 asset reliability = 94.3%
- A 3% increase in reliability is
   > 500 kboe/yr net to Beach
- Higher output is incremental to current production outlook

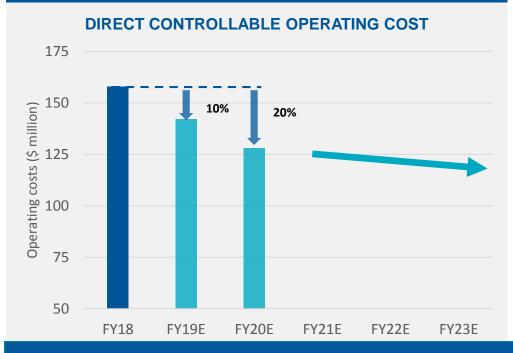
#### A 3% increase in reliability could increase annual revenues by more than \$20 million

<sup>1.</sup> Outlook is not guidance. Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Any changes to the underlying assumptions could cause actual reported results to differ materially to the outlook presented.
2. Reliability defined as (facility online time + scheduled maintenance) / total time

### FIVE YEAR OUTLOOK – DIRECT OPERATING COSTS BUILDING A FOUNDATION FOR THE FUTURE



### Beach is targeting > 20% reduction in direct controllable operating costs<sup>1</sup>...



### ...translating to > \$30 million/annum saving versus FY18 pro forma levels

- Beach is targeting a > 20% reduction in direct controllable operating costs in FY20 vs FY18
- Expected to generate > \$30 million per annum in operating cost savings by FY20
- These cost savings are not included in current free cash flow outlook

> \$30 million per annum of further operating cost savings targeted by FY20

<sup>1.</sup> Source Beach data. Direct operating costs defined as operating costs, before tariffs, tolls and royalties. Estimates based upon Beach outlook is not guidance. Outlook is determined using the assumptions set out on the "Compliance Statements" slide. Any changes to the underlying assumptions could cause actual reported results to differ materially to the outlook presented.

# OPERATIONAL EXCELLENCE DELIVERY OF VALUE THROUGH SAFE, RELIABLE AND EFFICIENT OPERATIONS



- ✓ Our top priority is safety
- ✓ Continue to embed the Cooper Basin low cost operating model
- ✓ Deliver operational excellence

	Reliability	Operating costs
Key Goals	98% reliability across all operating assets by end FY20	Sustainable reduction in direct operating costs of greater than 20% by end FY20
Key Targets	> \$20 million per annum incremental revenue targeted by the end of FY20 vs FY18 levels	> \$30 million per annum reduction in direct controllable operating costs by FY20 vs FY18 levels



### FY19 DRILLING PROGRAM INCREASING FOCUS ON HORIZONTAL WELLS



### FY19 expected participation (number of wells)

	Gas	Oil	Total
Cooper Basin JV	65	22	87
Western Flank	8	35	43
Other	0	0	0
Total Cooper Basin	73	57	130
South Australia - Otway Basin	2	0	2
Victoria - Otway Basin	1	0	1
Perth Basin	0	0	0
Total Beach	76	57	133

### Drilling program expanded across the portfolio with more rigs and more wells Beach to participate in up to 133 wells

Up to 69 development wells and up to 64 exploration / appraisal wells

#### **Cooper Basin JV**

Drilling of up to 87 wells in FY19, almost three quarters to target gas

#### **Western Flank**

- Approximately 80% of wells to target oil, which will more than double the number of FY18 oil wells
- The Western Flank drilling program to include up to 15 horizontal oil wells across operated and non-operated acreage

#### **South Australia Otway Basin**

 An exploration and an appraisal well as we target conventional gas production from Haselgrove by the end of calendar year 2019

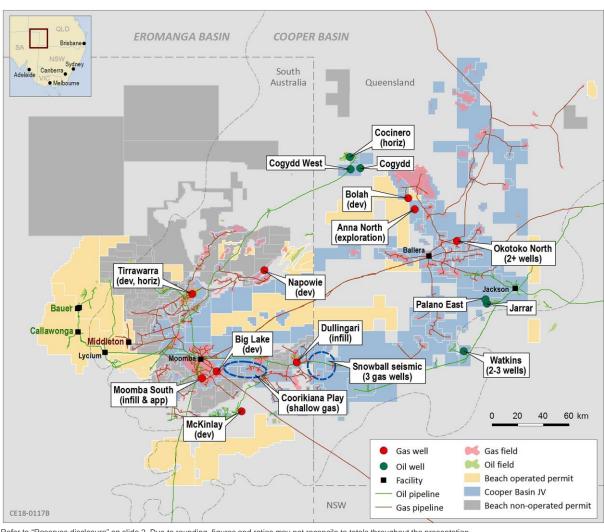
#### **Victoria Otway Basin**

- Onshore-to-offshore Black Watch development well expected to be drilled in H2 FY19
- Prepare for further drilling activity in FY20 including the Enterprise exploration well

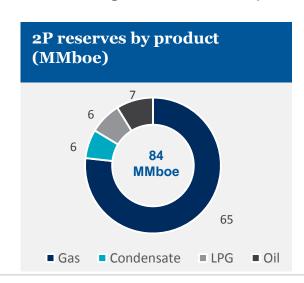


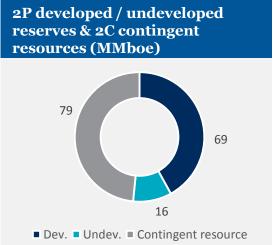
### **COOPER BASIN JV** BEACH VARIOUS INTERESTS (MOST IN 30-40% RANGE), SANTOS OPERATOR





- Cost reductions enable renewed focus on growth
- Targeting steady to increasing production over the medium-long term (87 wells in FY19, up 36%)
- Simplification of the JV from three to two partners
- Review of existing fields is still providing upside surprises e.g. Watkins/Watson N oil field in SWQ
- Contingent resources provide growth opportunity





Refer to "Reserves disclosure" on slide 2. Due to rounding, figures and ratios may not reconcile to totals throughout the p

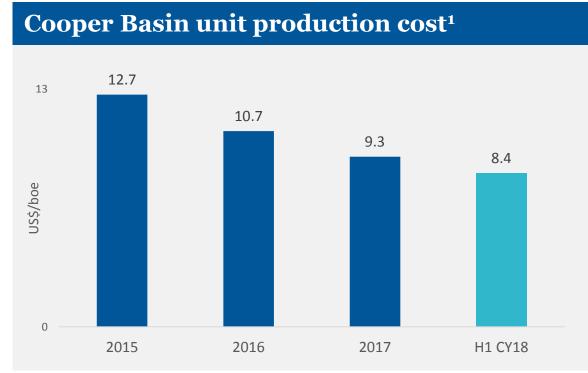
September 2018 Investor Briefing 43 Beach Energy Limited | ABN 20 007 617 969

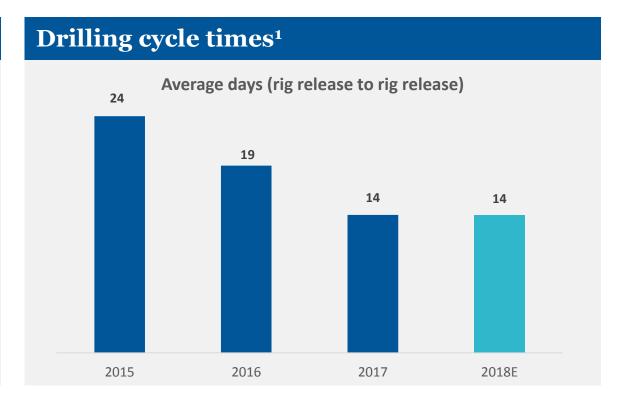
## COOPER BASIN JV IMPROVING PRODUCTION COSTS AND CYCLE TIMES



A 50% reduction in gas well drilling costs and 34% improvement in unit production cost has led to a more efficient Cooper Basin JV and free cash flow generation

 A 40% reduction in drill cycle times since 2014 has led to increased number of wells drilled per annum with the same number of rigs



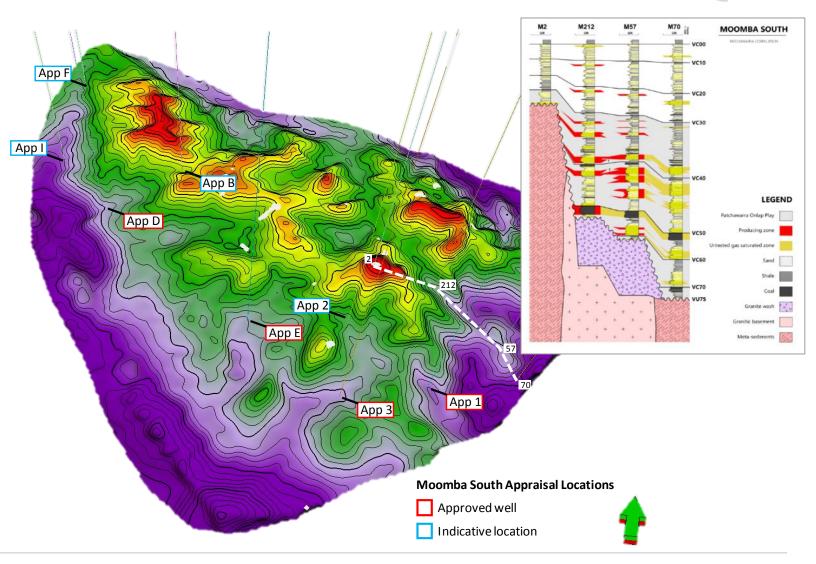


1. Source: Santos

# COOPER BASIN JV MOOMBA SOUTH APPRAISAL

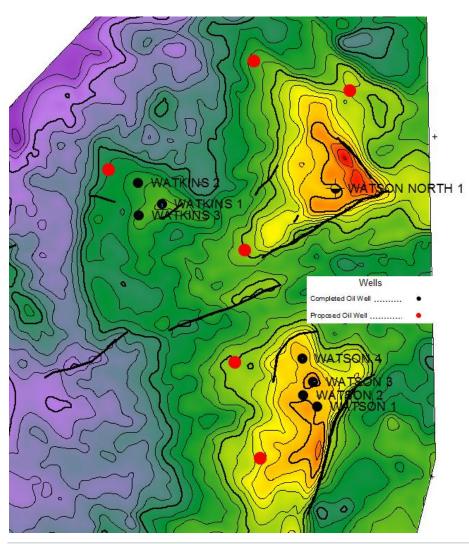
BEACH

- 2C → 2P reserve conversion potential
- Beach supporting Santos in appraising Patchawarra in Moomba South
- Key uncertainties are reservoir thickness and deliverability
- Further calibration of geologic model which predicts increased sand thickness as per Moomba-212
- Four wells approved and four more pending

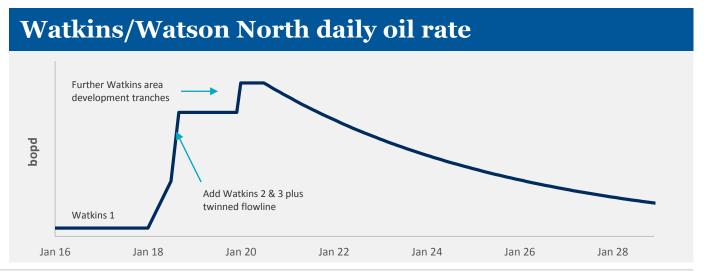


# COOPER BASIN JV WATKINS/WATSON NORTH – NEW OPPORTUNITIES IN AN OLD FIELD





- Example of oil potential in CBJV and collaboration between JV partners
- Field reviews in late 2017 identified immediate drilling opportunities in Watkins/Watson North
- Net pay was 100% more than pre-drill expectations and added 5,000 bopd (gross) from ~400 bopd prior.
- JV working up further drilling opportunities for H2 FY19



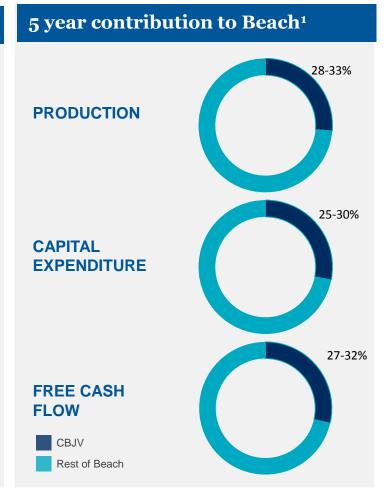
# COOPER BASIN JV EFFICIENCY HAS CREATED A GROWTH STORY



- Operator targeting steady to increasing production levels for next decade
- Strong focus on controlling costs
- Capital program in line with the operator's guidance
- Key variables to outlook include:
  - Continuation of the drilling program for the entirety of outlook period
  - Maintenance of exploration and appraisal success rates

#### **Activities to enhance value**

- Increased drilling activity to facilitate renewed focus on appraisal and exploration
- Conversion of 2C to 2P reserves
- Renewed focus on oil potential
- Maintained focus on costs to maximise margins
- Evaluate opportunities to extract value from infrastructure and storage assets



Estimated cumulative contributions to Beach determined using the assumptions set out on the "Compliance Statements" slide. Any changes to the underlying assumptions could cause reported results to differ materially to the outlook presented.
 Estimates have been prepared on the basis the proposed sale of a 40% interest in the Victorian Otway assets is completed

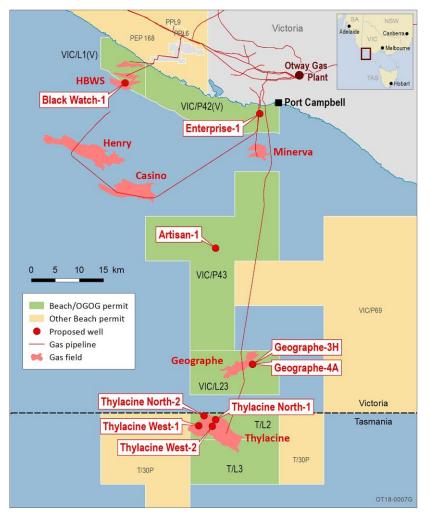
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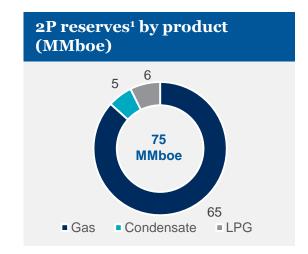


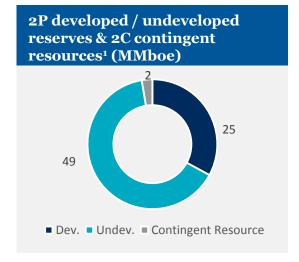
### VICTORIAN OTWAY BASIN

#### **BEACH 60% AND OPERATOR**<sup>1</sup>









- Liquids-rich, long-life asset with low risk exploration and development opportunities
- Multi-year, nine-well programme commencing in H2 FY19 with undeveloped reserves and exploration prospects
- 205 TJ/d Otway Gas Plant currently fed by seven producers
  - Three HBWS producers (onshore to offshore ERD wells)
  - One Geographe and three Thylacine producers
- Aligned ownership between assets feeding the Otway Gas Plant
- Strategically located infrastructure
- Strategy to keep the plant full for as long as possible by developing the lowest unit technical cost gas first

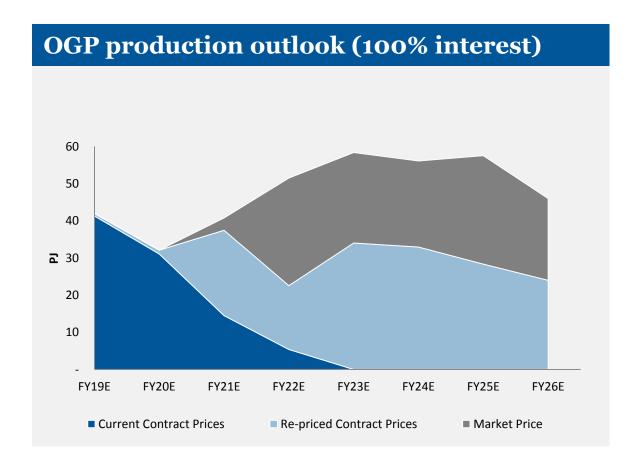
Refer to "Reserves disclosure" on slide 2. Due to rounding, figures and ratios may not reconcile to totals throughout the presentation.

<sup>1.</sup> Beach has entered into an agreement to sell a 40% interest in its Victorian Otway Basin interests to O.G. Energy Pty Ltd. Refer to recent ASX announcement on 5 October 2018 and slide 12 for details. 2P reserves and 2C contingent resources on this slide have not been adjusted to reflect the proposed sale

### VICTORIAN OTWAY BASIN PRODUCTION



- Nine drilling opportunities planned in the next four years to keep the Otway Gas Plant (OGP) as full as possible until FY26. Project life > 15 years
- Start with lowest cost onshore-to-offshore, Extended Reach Directional (ERD) wells in H2 FY19 (two wells)
- Seven well offshore program starts with Artisan-1 exploration well in FY20
- The integrated basin development plan delivers early addition of uncontracted gas with lowest unit technical cost gas online first (\$1-3/Mcf)
- First price review for Origin GSAs effective 1 July 2020



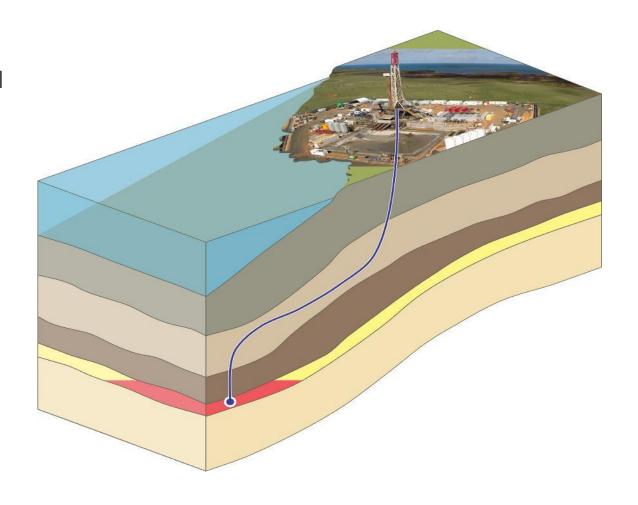
### > 15 years field life remaining, wells generate IRRs in excess of 40%<sup>2</sup>

<sup>1.</sup> Production outlook is determined using the assumptions set out on the "Compliance Statements" slide and reflects exploration success at Enterprise and Artisan. Any changes to the underlying assumptions could cause actual reported results to differ materially to the outlook presented. Outlook is presented on 100% basis Internal rate of return (IRR) calculated based on internal assumptions. Refer to the "Compliance Statements" slide for further detail regarding assumptions.

# VICTORIAN OTWAY BASIN TWO EXTENDED REACH DIRECTIONAL WELLS TO BE DRILLED FY19 TO FY20



- Two ERD wells drilled from onshore to offshore
- Program starts with Blackwatch-1 development well in late FY19, followed by Enterprise-1 exploration well
- ERD wells allow accelerated hook-up and early production opportunities
- Onshore pipeline and gas gathering costs are substantially cheaper than subsea facilities



### **VICTORIAN OTWAY BASIN INDICATIVE TIMELINE<sup>1</sup>**



- Phased development with high impact, low unit technical cost exploration/development up front
- Early exposure to uncontracted gas with low risk exploration success
- ERD wells, lower cost, simplified tie in, rapid path to production
- Exact timing of offshore drilling is being determined

	FY19	FY20	FY21	FY22	
Black Watch (development)		$\wedge$			
Enterprise (exploration)			$\wedge$		
Artisan (exploration)				$\Diamond$	
Geographe x 2 (development)			$\Diamond$		
Thylacine x 4 (development)				<b>♦</b>	





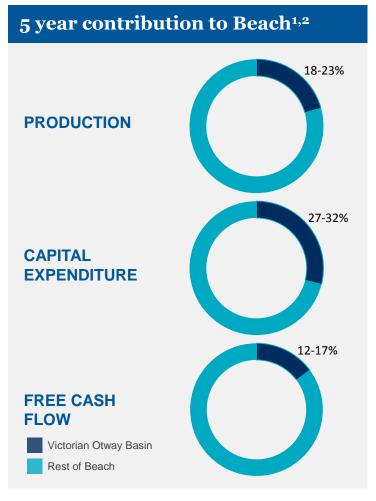
## VICTORIAN OTWAY BASIN KEY ASSET WITH LARGE CONTRIBUTION TO BEACH



- Long-life asset
- Investing capital in undeveloped reserves and low risk exploration prospects to keep the plant as full as possible
- East coast gas at market prices beyond the 1 July 2020 repricing
- From FY23, no further development capital envisaged
- 30-40% free cash flow contribution by FY23

#### Activities to enhance value

- Optimise rig contracting strategy to mitigate risk of future day rate inflation
- Optimise development phasing to tie in lowest unit technical cost first
- Maximise facility uptime to maximise production throughput
- Optimise LPG sales
- Evaluate opportunities to extract value from infrastructure and storage assets

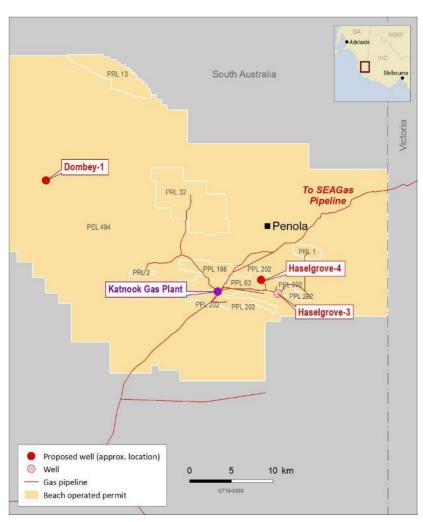


<sup>1.</sup> Estimated cumulative contributions to Beach determined using the assumptions set out on the "Compliance Statements" slide. Any changes to the underlying assumptions could cause reported results to differ materially to the outlook presented Estimates have been prepared on the basis the proposed sale of a 40% interest in the Victorian Otway assets is completed.



### SOUTH AUSTRALIAN OTWAY BASIN BEACH INTERESTS 70 – 100% AND OPERATOR





- Reinvigorated area of business with FY18 Haselgrove discovery (15 MMboe 2C contingent resource)
- Attractive local gas market gas demand
- Supported in part by state and federal grants
- Key objective is conversion of the contingent resources to reserves through long term production data and appraisal drilling (Haselgrove-4)
- Anticipated first gas from Haselgrove before end of 2019 (H1 FY20) at 10TJ/d, expanding to 40-50TJ/d with drilling success
- Further growth potential from Dombey-1 exploration well (FY19) and Katnook Deep exploration prospect

Refer to "Reserves disclosure" on slide 2. Due to rounding, figures and ratios may not reconcile to totals throughout the presentation.

### **SOUTH AUSTRALIAN OTWAY BASIN** INDICATIVE TIMELINE<sup>1</sup>



- Beach planning first gas to market by end of 2019 (H1 FY20)
- Katnook processing facility concept select studies are underway
- Haselgrove-4 and Dombey-1 to be drilled in FY19

	FY19	FY20	FY21	FY22	FY23
Katnook facility (design and build)		$\Diamond$			
Dombey-1 (exploration)		$\Diamond$			
Haselgrove-4 (appraisal)		$\Diamond$			
Follow-on drilling					







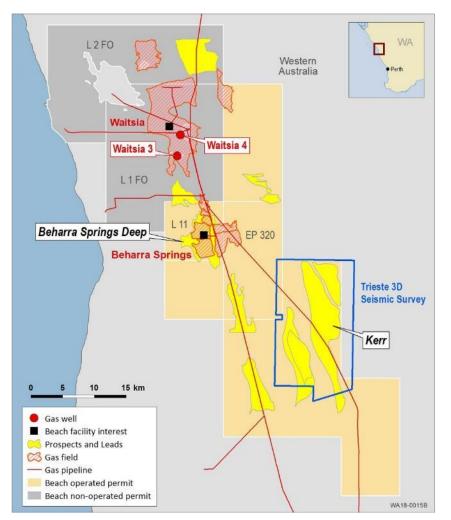
<sup>1.</sup> Indicative timeline subject to variables such as finalisation of work programs, exploration results, joint venture approvals and Board approvals

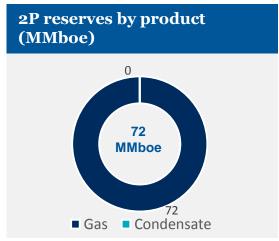


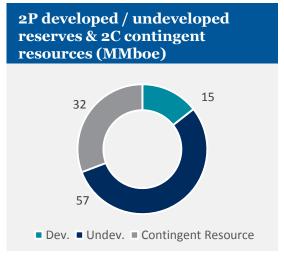
### PERTH BASIN

### BEACH

### WAITSIA (BEACH 50%), BEHARRA SPRINGS (BEACH 67% AND OPERATOR)







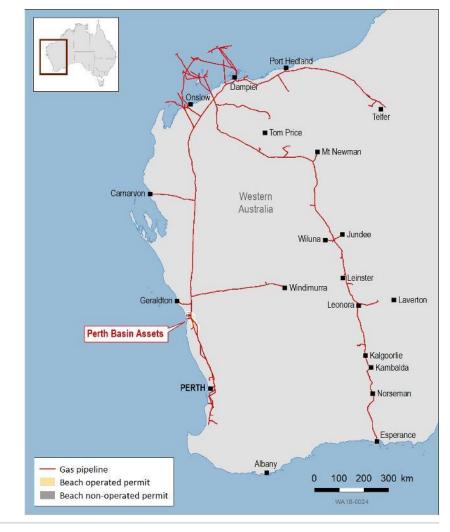
- Waitsia is a high quality, low cost gas resource
- Multiple commercialisation options being evaluated with operator Mitsui
- Working with Mitsui to deliver operating cost savings to the Basin
- Significant value in existing infrastructure
- Exploration well Beharra Springs
   Deep to be drilled in H2 FY19,
   subject to JV approval

Refer to "Reserves disclosure" on slide 2. Due to rounding, figures and ratios may not reconcile to totals throughout the presentation.

# PERTH BASIN WAITSIA GAS COMMERCIALISATION

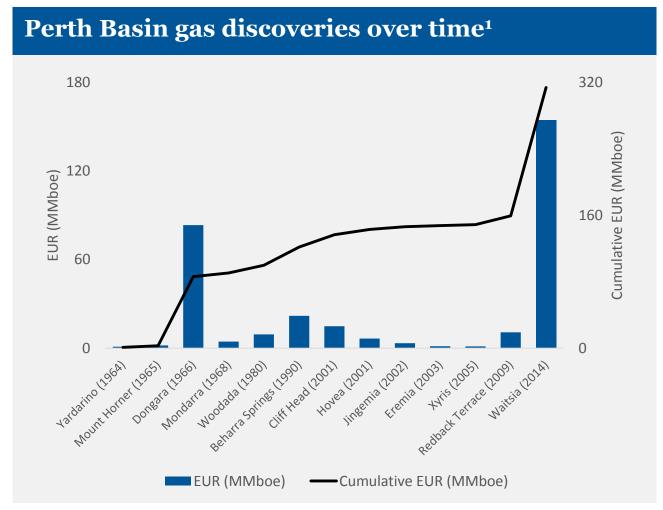


- Joint Venture is evaluating a number of commercialisation options, including:
  - existing gas customers
  - potential new domestic gas customers (including mining and petrochemical companies)
  - potential export opportunities
- Targeting a development decision by the end of FY19
- Increased gas volumes improve the economics of all commercialisation options, underpinning our ongoing exploration strategy



### PERTH BASIN KINGIA PLAY OPENING





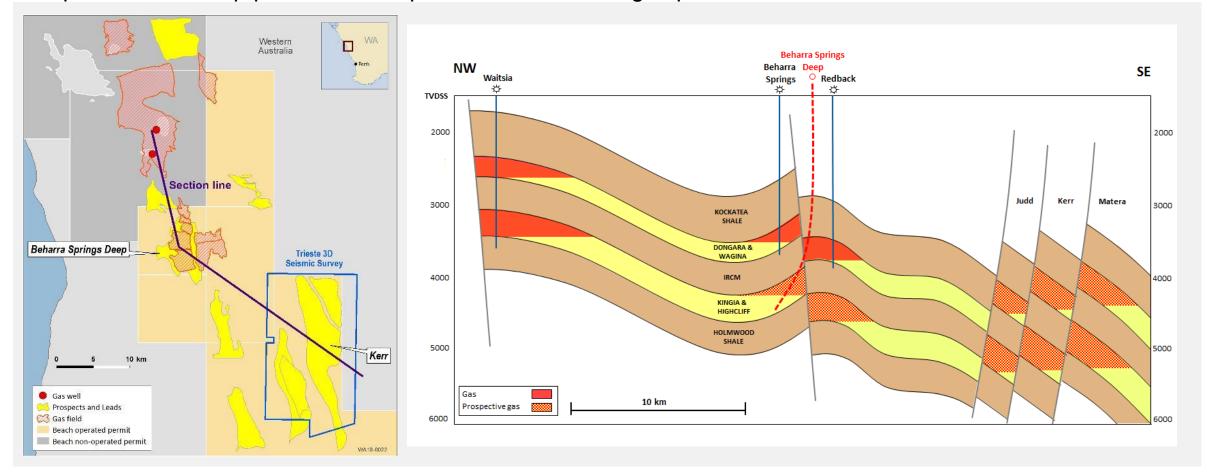
- Waitsia appraisal result is a game changer for the Perth Basin
- Opened up the Kingia / High Cliff play, a new, deeper play with significant upside potential
- Multiple prospects located close to existing infrastructure and customers
- Beach acting on this via:
  - Drilling of Beharra Springs Deep
  - Trieste seismic survey over Kerr prospect

1 Source: Public information

# PERTH BASIN BEHARRA SPRINGS DEEP PROSPECT (BEACH 67% INTEREST)



Multiple material deep pool tests and potential for stacked gas pools as seen at Waitsia

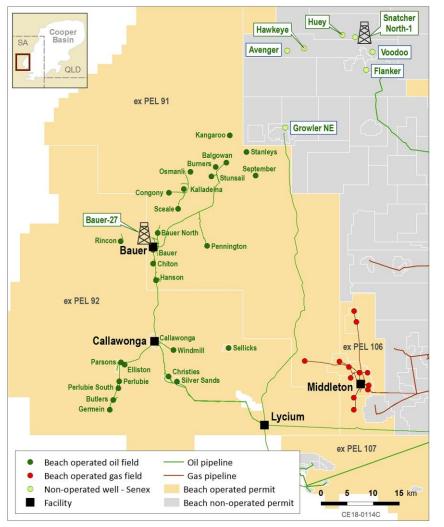


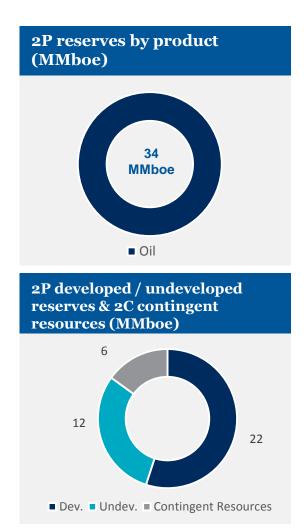


# WESTERN FLANK OIL BEACH OPERATED INTERESTS 75







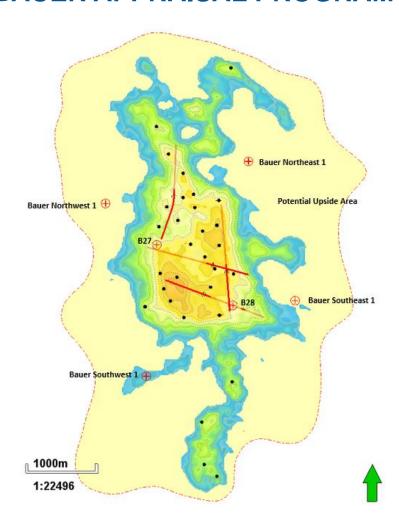


- Material part of Beach's portfolio
- Provides significant oil price exposure
- Value accretive near term development opportunities
  - Material appraisal and development opportunities in Bauer Field (FY19)
  - Field development concept to be replicated
  - Horizontal well technology has been introduced to great effect

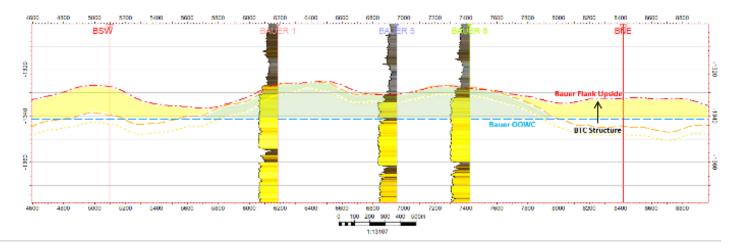
Refer to "Reserves disclosure" on slide 2. Due to rounding, figures and ratios may not reconcile to totals throughout the presentation.

### WESTERN FLANK OIL BAUER APPRAISAL PROGRAM



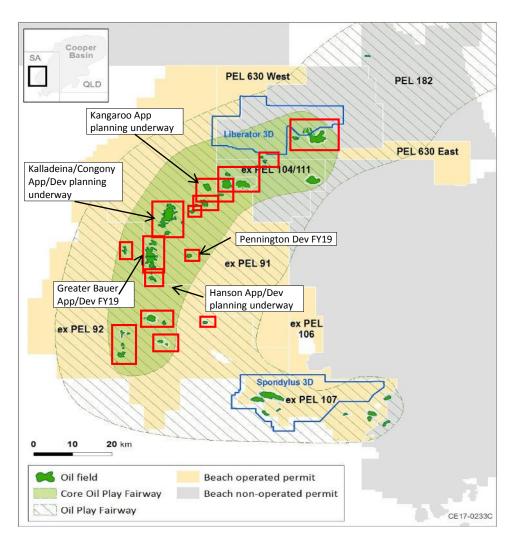


- Bauer field limit appraisal and development in FY19
- Two vertical development wells to obtain critical data for modelling and four McKinlay horizontal wells for production
- Four appraisal wells to test field limits
- Follow up horizontal drilling to be planned based upon appraisal results

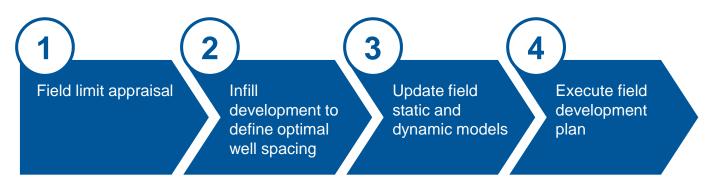


# WESTERN FLANK OIL ROLLOUT THE "BAUER STRATEGY" ACROSS THE WESTERN FLANK





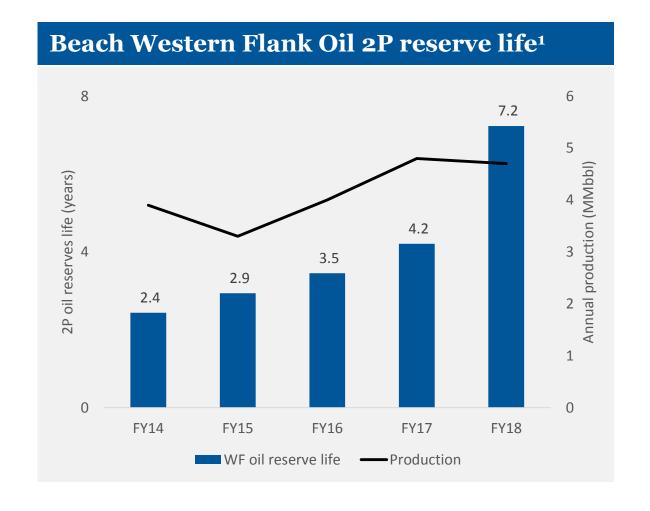
- Appraisal and development planning underway for multiple fields
- Significant upside in McKinlay, Namur and Birkhead reservoirs from this approach
- Different development well design to be considered on a fit-for-purpose basis to maximise production and recovery



### WESTERN FLANK OIL RESERVES GROWTH HAS EXCEEDED EXPECTATIONS



- Western Flank 2P oil reserves:
  - More than doubled over the past 3 years
  - Reserves life now > 7 years
- 2P reserves increase underpinned by:
  - Exploration success
  - Positive production performance
  - Horizontal drilling
- Future activity to evaluate potential for further reserves additions

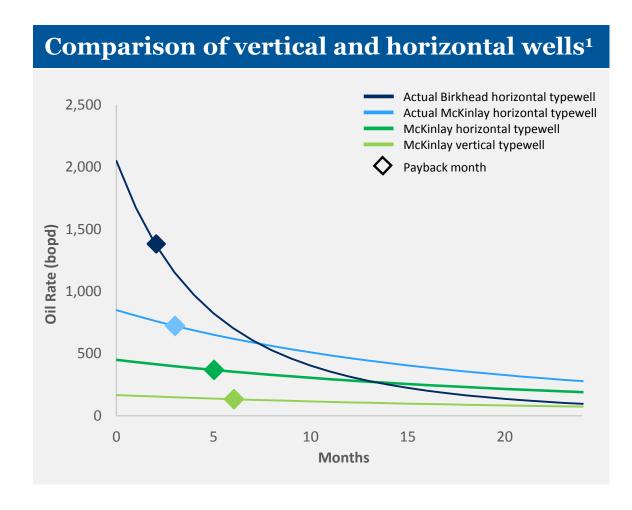


1. Reserve life calculated at as year-end Western Flank 2P oil reserves divided by reported annual Western Flank oil production.

## WESTERN FLANK OIL APPLICATION OF HORIZONTAL WELL TECHNOLOGY



- Strong economic metrics have always been a competitive advantage for the Western Flank Oil assets
  - High production rates
  - Low cost drilling and operations
  - Short online time
  - Short payback time
- The transition to horizontal drilling has led to an increased in recovery per well, reserves growth and a reduction in payback time



\_1. Source: Beach analysis and estimates.

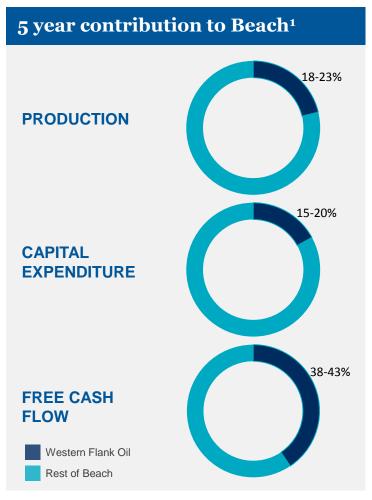
### WESTERN FLANK OIL HIGH MARGIN ASSET WITH MORE TO GIVE



- Significant contributor of free cash flow due to high margin production
- Capital program is designed to fully appraise the extent of the Bauer Field and other Wester Flank fields
- Key variables to outlook include:
  - Ultimate size of the Bauer Field
  - Horizontal well performance
  - Future exploration/appraisal success in delineating reserves

#### Activities to enhance value

- Appraisal of lateral extent of Bauer and similar oil fields
- Optimise drilling technology selection (horizontal, vertical, fracture stimulation) on a well by well basis
- Retain low cost model to maintain operating cost/boe despite higher well numbers and more artificial lift

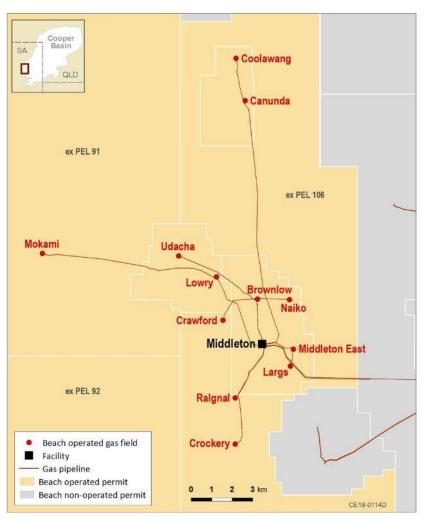


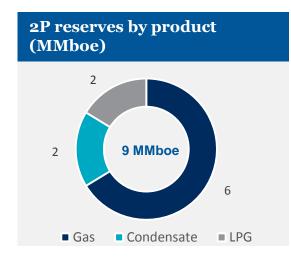
<sup>1.</sup> Estimated cumulative contributions to Beach determined using the assumptions set out on the "Compliance Statements" slide. Any changes to the underlying assumptions could cause reported results to differ materially to the outlook presented.

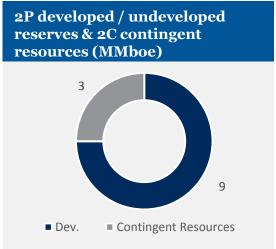
2. Estimates have been prepared on the basis the proposed sale of a 40% interest in the Victorian Otway assets is completed.

# WESTERN FLANK GAS PRODUCING ASSETS EX PEL 106 AND EX PEL 91, BEACH 100% AND OPERATOR









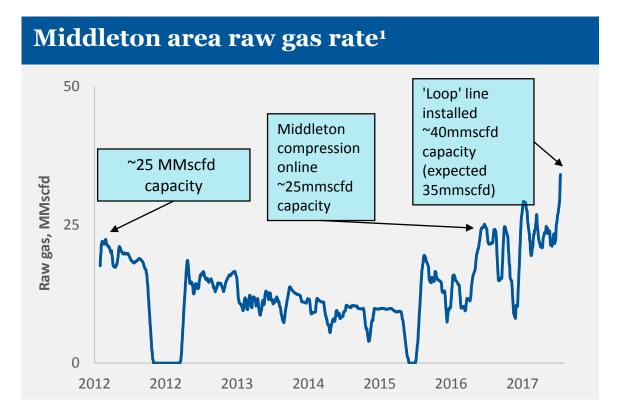
- A recent growth story
- Liquids rich gas play with access to East Coast gas market through Moomba gas plant
- Asset spans development, appraisal and exploration stages

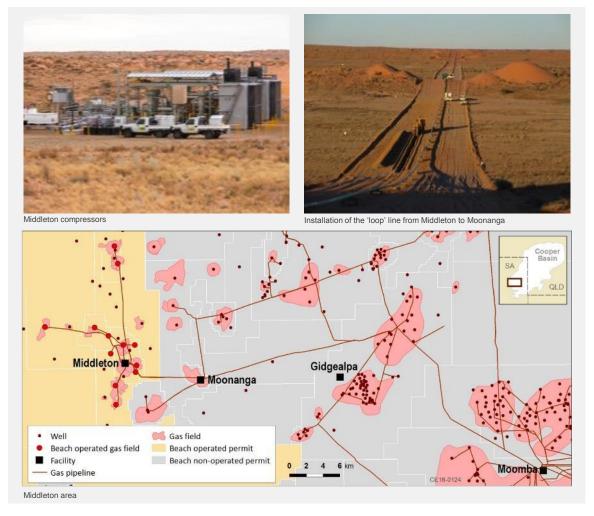
Refer to "Reserves disclosure" on slide 2. Due to rounding, figures and ratios may not reconcile to totals throughout the presentation.

# WESTERN FLANK GAS MIDDLETON GAS FACILITY



 Continued drilling success has allowed expansion from 25 to 40 MMscfd production capacity



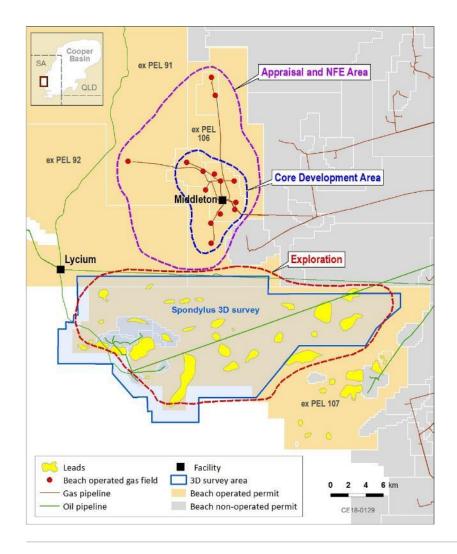


1. Source: Beach data

**70** 

# WESTERN FLANK GAS EXPLORATION AND DEVELOPMENT





- Drilling program to support objective of long term stable production out of Middleton
- Eight gas wells planned for FY19 (appraisal and exploration)
  - Appraisal to convert 3P reserves to 2P reserves
- Future development drilling in the core Middleton, Brownlow and Lowry field area
  - Scope for cost reduction via pad drilling of development wells
- Future exploration leads to come from Spondylus 3D survey
  - Expected to be complete in H1 FY19

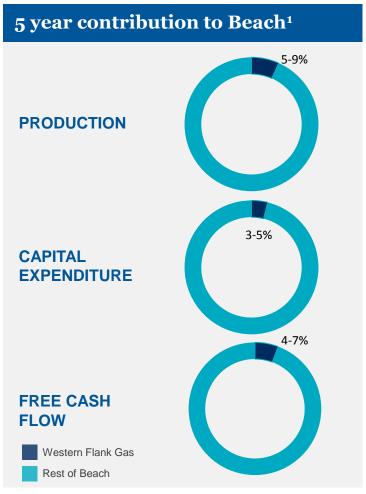
# WESTERN FLANK GAS GROWTH STORY



- Capital program designed to maintain Middleton raw gas at 40MMscfd
- Key variables to outlook include:
  - Exploration and appraisal success to maintain throughput
  - Moomba processing capacity / prioritisation of Beach gas

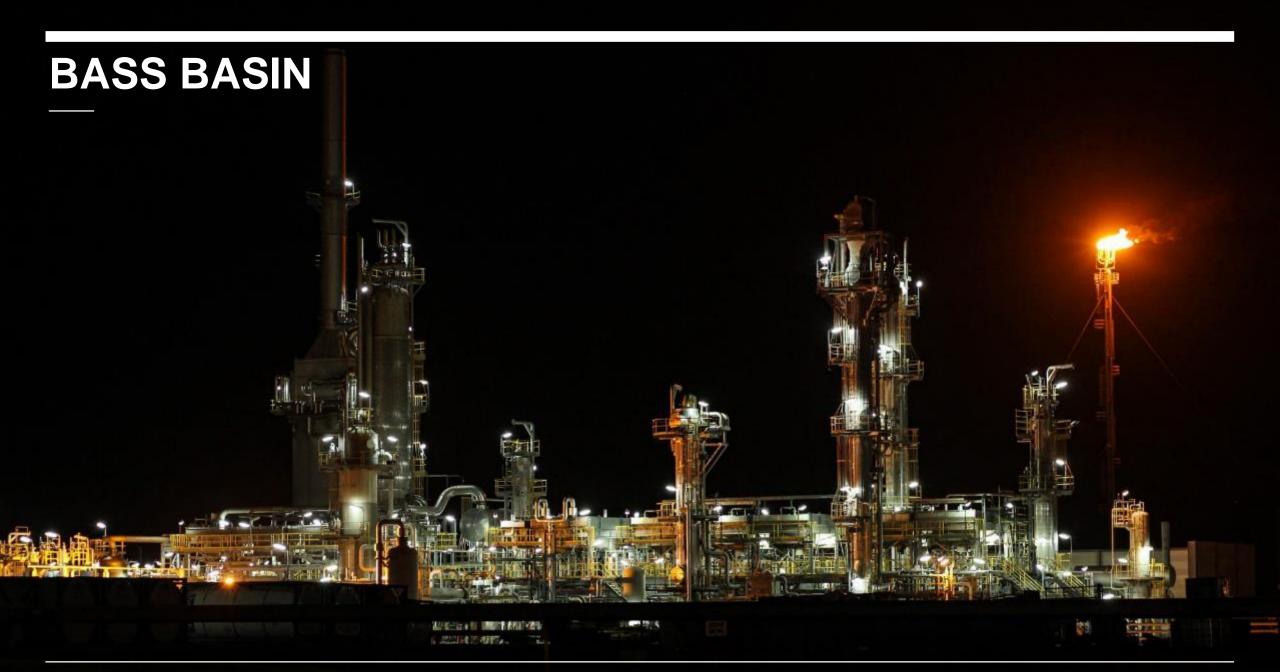
#### Activities to enhance value

- Appraisal of existing gas discoveries for 2P reserves upside
- Prospects arising from the Spondylus 3D survey to provide further exploration drilling targets
- Maximise liquids production and handling capacity
- Maximise Middleton facility reliability
- Minimise production impact arising from Moomba facility interruptions



<sup>1.</sup> Estimated cumulative contributions to Beach determined using the assumptions set out on the "Compliance Statements" slide. Any changes to the underlying assumptions could cause reported results to differ materially to the outlook presented.

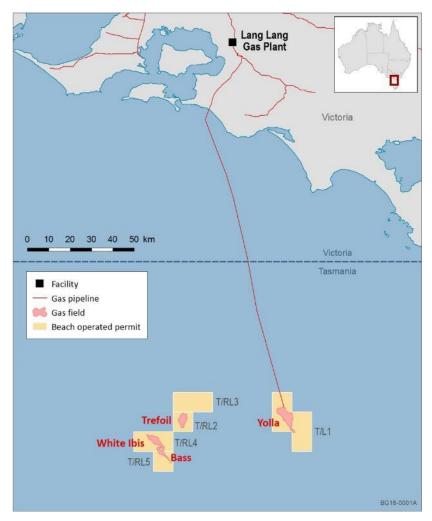
2. Estimates have been prepared on the basis the proposed sale of a 40% interest in the Victorian Otway assets is completed

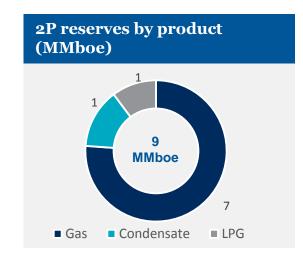


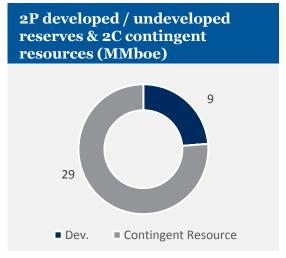
### **BASS BASIN**



### BEACH 53.75% PRODUCING ASSETS, 50.25% NON-PRODUCING, BEACH OPERATED







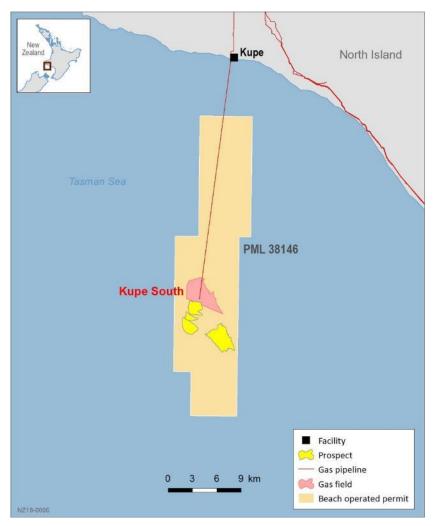
- BassGas is a mature asset servicing the east coast gas market
- Beach objectives are to minimise operating costs, maximise productivity and extend field life
- FY19 activities include evaluation of potential Trefoil tieback
- Trefoil key to material 2C to 2P resource conversion

Refer to "Reserves disclosure" on slide 2. Due to rounding, figures and ratios may not reconcile to totals throughout the presentation.

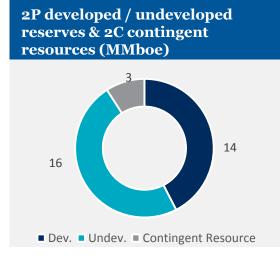


# NEW ZEALAND – KUPE GAS PROJECT BEACH 50% AND OPERATOR









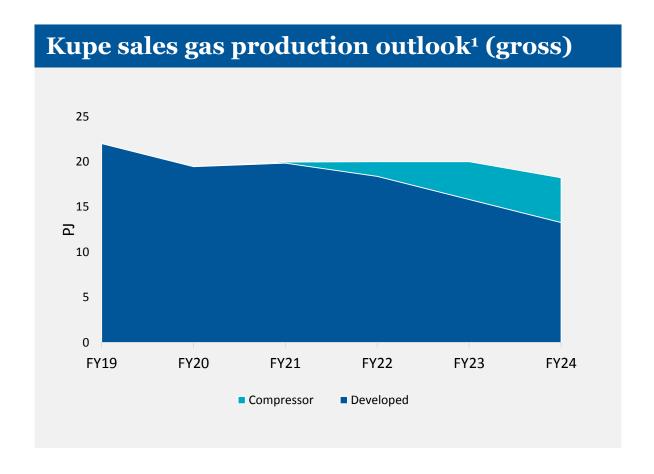
- Stable, solid free cash flow generating asset
- Important to New Zealand gas and LPG supply
- Low risk compression development project to maintain medium term production rates
- Long term GSA with Genesis
- More than 10 years production life remaining

Refer to "Reserves disclosure" on slide 2. Due to rounding, figures and ratios may not reconcile to totals throughout the presentation.

### NEW ZEALAND – KUPE GAS PROJECT KUPE GAS PLANT



- Nameplate capacity of the plant is 77 TJ/day with excellent reliability (> 99%)<sup>2</sup>
- Gas exported via pipeline to North Island distribution network
- Condensate transported via road and shipped internationally
- LPG transported via road for local market
  - Produces 50% of NZ LPG supply<sup>3</sup>



<sup>1.</sup> Production outlook is determined using the assumptions set out on the "Compliance Statements" slide. Any changes to the underlying assumptions could cause actual reported results to differ materially to the outlook presented.

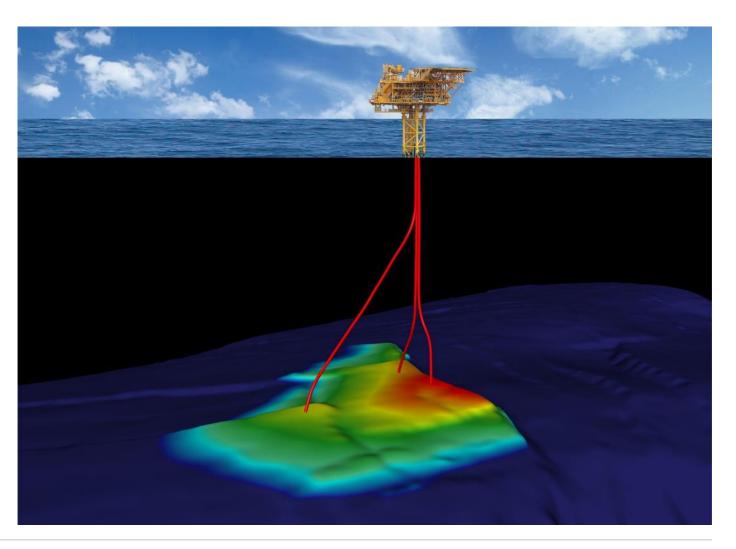
<sup>2.</sup> Reliability defined as (facility online time + scheduled maintenance) / total time

<sup>3.</sup> Source: New Zealand Ministry of Business, Innovation and Employment.

# NEW ZEALAND – KUPE GAS PROJECT DESCRIPTION OF FIELD



- Kupe developed by three wells
- Valuable liquids-rich gas produced
- Compression project working towards FID in early FY20
  - Low risk, high value to extend production plateau and field life
- Possible that no further wells required to drain the field



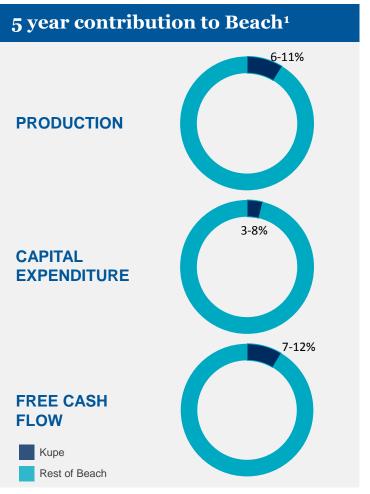
### NEW ZEALAND - KUPE GAS PROJECT KEY GROUP CASH FLOW CONTRIBUTOR



- Expected to generate ~10% of Beach's free cash flow over the next 5 years
- Key variables to outlook include:
  - Customer demand across all products
  - Requirement for a further well
- New Zealand government offshore exploration policies do not impact this asset nor any of Beach's New Zealand permits

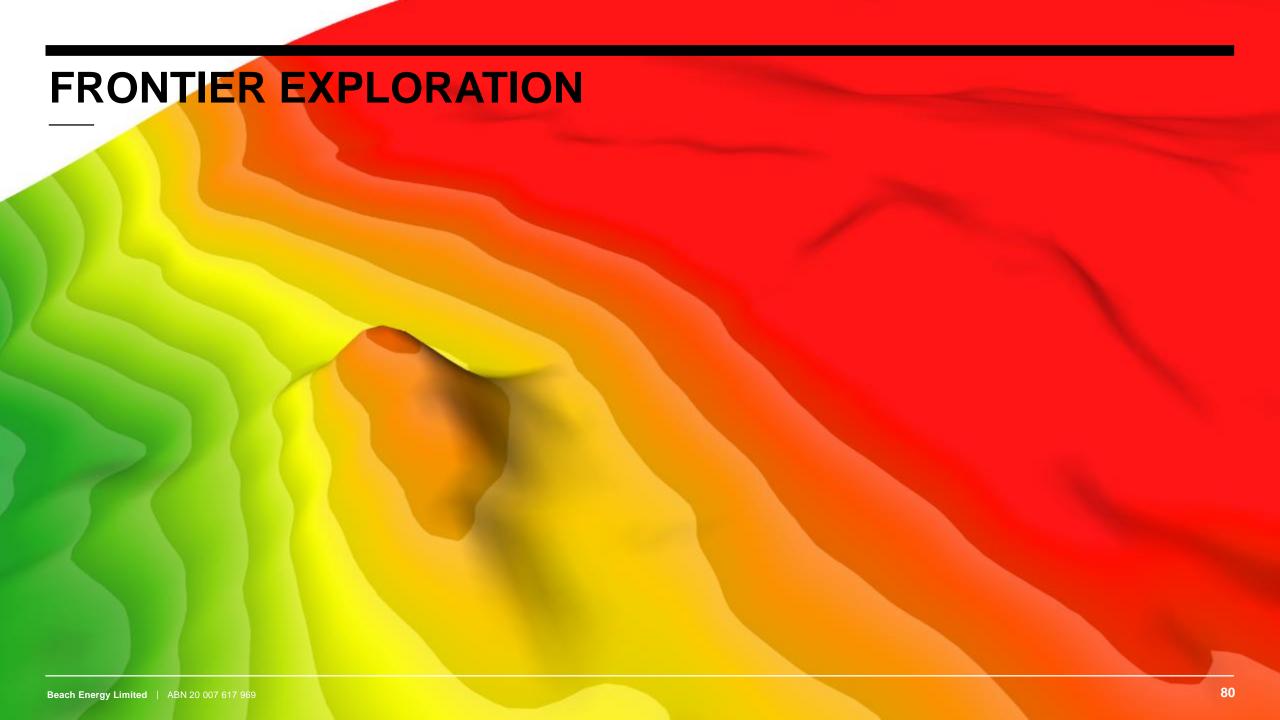
#### Activities to enhance value

- Successful FEED and subsequent execution of Kupe compression project
- Commercial negotiation of future gas sales
- Optimise LPG production
- Maximise Kupe facility reliability



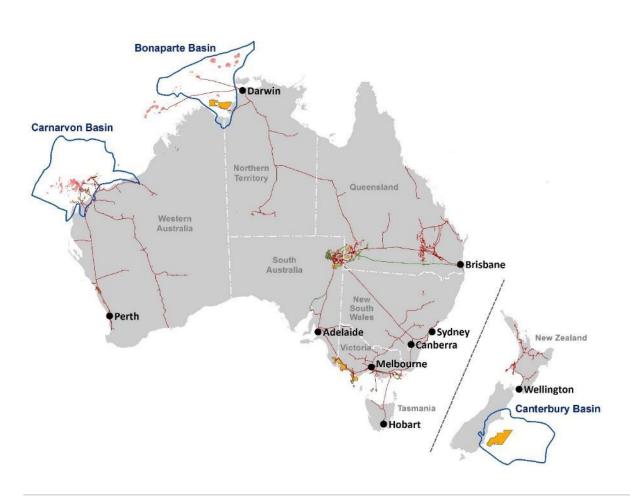
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2. Estimates have been prepared on the basis the proposed sale of a 40% interest in the Victorian Otway assets is completed



# FRONTIER EXPLORATION HIGH IMPACT EXPLORATION TARGETS IN PORTFOLIO





#### **Carnaryon Basin**

Key Prospect: WA-359-P / Ironbark

### **Bonaparte Basin**

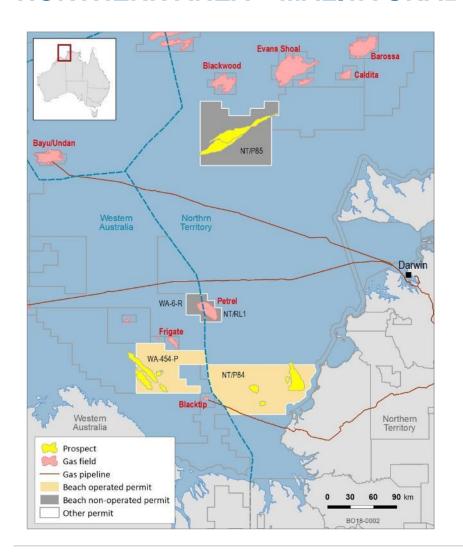
- Three exploration permits, two with Santos as JV partner
- Gas-condensate-oil, multiple plays
- Key Prospects: Breakwater, Marina Deep, Corona

### **Canterbury Basin**

- Two permits, three key giant prospects
- Farm-down process underway

### BONAPARTE BASIN NORTHERN AREA – MALITA GRABEN





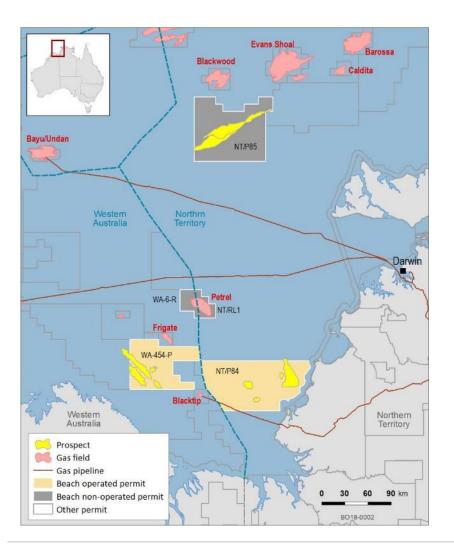
- Beach holds five permits in the Bonaparte Basin covering two main exploration play trends:
  - Northern Area Malita Graben; and
  - Southern Area Petrel Sub-Basin

#### Northern Area – Malita Graben (Beach 50%, Santos 50% op)

- Exploration permit close to existing fields
- Large gas prospects in a proven play area
- Recently acquired Bethany 3D being processed and will be used to map and de-risk prospects
- Area of significant activity Barossa/Caldita project recently announced FEED status

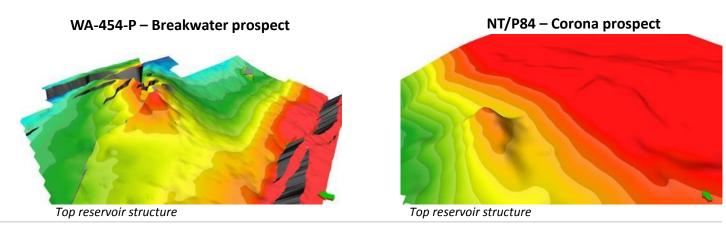
### **BONAPARTE BASIN**SOUTHERN AREA – PETREL SUB-BASIN





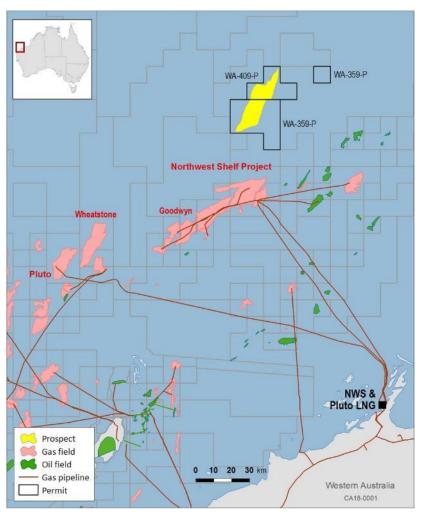
#### Southern Area - Petrel Sub-basin

- Two large Beach-operated exploration permits; WA-454-P (100% Beach) and NT/P84 (Beach 50%, Santos 50%)
- Features multiple prospects and leads
- Gas, gas-liquids and oil potential close to existing infrastructure
- Focus of recent activity; Total-Santos farm-in to adjacent WA-488-P and acquisition of Beehive 3D seismic survey



### **CARNARVON BASIN IRONBARK PROSPECT**





#### Ironbark Prospect<sup>1</sup>

(WA-359-P Beach 21%, subject to farm-in; WA-409-P Beach 7.5% subject to farm-in)

 Potential high-impact gas resource within tie-back distance to the NWS project. Targeting the deeper Mungaroo reservoirs, which are the primary reservoirs at Gorgon

Beach farm-in subject to conditions including:

Formation of a JV and

operating agreement with full funding for Ironbark-1

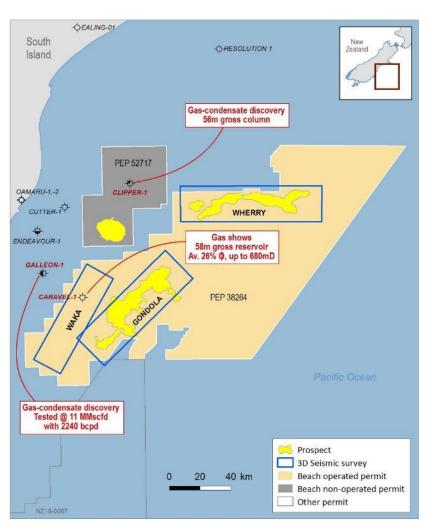
Extension to permit expiry date to allow satisfactory timing for planning and drilling of Ironbark-1

BP exercising its option to farm-in Ironbark top reservoir structure

Beach ASX Release #088/17 dated 29 November 2017 for further information

# CANTERBURY BASIN LARGE PROSPECTIVE RESOURCE POTENTIAL

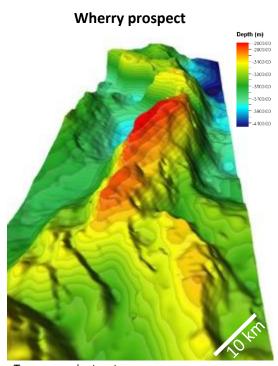




#### **Canterbury Basin**

(Barque, Beach 50%; Wherry and Gondola, Beach 65%)

- Three multi-Tcf plus liquids prospects<sup>1</sup>
- Proven hydrocarbon system with high liquids content
- Wherry is the likely first-drill prospect
- Sits within Beach-operated permit (PEP38264)
- Exploration follow-up potential at Gondola



Top reservoir structure

1. Success case best technical estimate



# FY19 OIL HEDGING POSITION OIL HEDGES AS AT 1 JULY 2018



	3-way Collar \$40 – 90 –105 per bbl	3-way Collar \$40 – 90 – 100 per bbl	3-way Collar \$40 – 103 – 113 per bbl	3-way Collar \$55 – 100 – 110 per bbl	Total Hedged Volumes (bbl)
FY19	285,000	577,500	630,000	3,435,000	4,927,500
Total	285,000	577,500	630,000	3,435,000	4,927,500

### 2018 ASIA ROADSHOW **BEACH** ENERGY **Beach Energy Limited Investor Relations** 25 Conyngham Street Glenside SA 5065 Australia T: +61 8 8338 2833 Nik Burns, Investor Relations Manager Mark Hollis, Investor Relations Advisor T: +61 8 8338 2833 F: +61 8 8338 2336 beachenergy.com.au Beach Energy Limited | ABN 20 007 617 969