Santos 2019 Half-year results

22 August 2019





Disclaimer and important notice

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

All references to dollars, cents or \$ in this document are to United States currency, unless otherwise stated.

Underlying profit, EBITDAX (earnings before interest, tax, depreciation, depletion, exploration, evaluation and impairment) and free cash flow (operating cash flows, less investing cash flows net of acquisitions and disposals and major growth capex, less lease liability payments) are non-IFRS measures that are presented to provide an understanding of the performance of Santos' operations. The non-IFRS financial information is unaudited however the numbers have been extracted from the financial statements which have been subject to review by the Company's auditor.

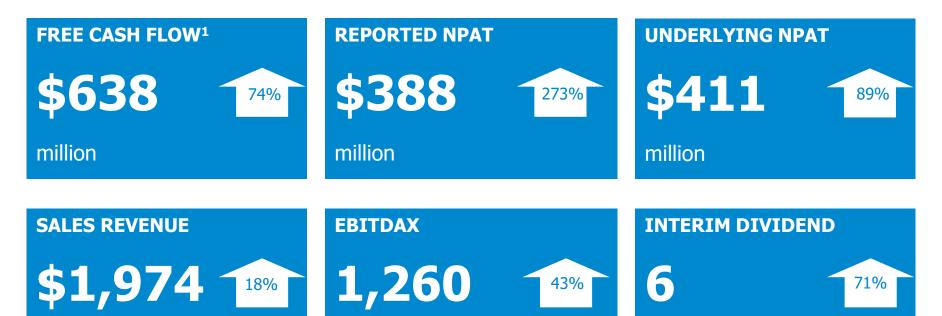
Refer to slide 42 for cautionary statement regarding Dorado contingent resources estimates contained in this presentation.

Cover image: Noble Tom Prosser rig at Dorado appraisal, Bedout Basin, offshore Western Australia

2019 Half-year highlights

Santos

Quadrant Energy acquisition and disciplined operating model drive record first-half earnings



US cents per share

¹ Operating cash flows less investing cash flows (net of acquisitions and disposals and major growth capex) less lease liability payments

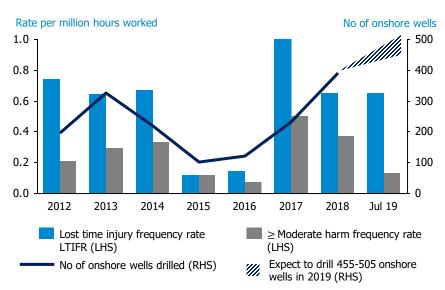
million

million

Safety and environment

Santos

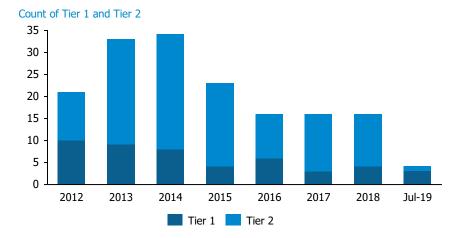
Santos is committed to being the safest oil and gas operator in Australia and preventing harm to people and the environment



Injury frequency rates vs activity levels

+ As activity levels continue to rise, implementation of Santos' Safety strategy is focused on improving capability and learning

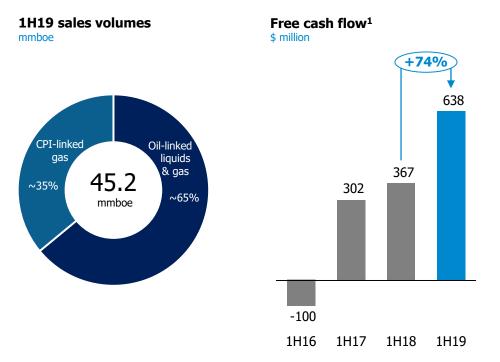
Loss of containment incidents



 Process Safety focus has delivered a decrease in loss of containment incidents in 2019

2019 forecast free cash flow breakeven lowered to ~\$31 per barrel Santos

Diversified and balanced portfolio supportive of strong, sustainable free cash flow through the oil price cycle



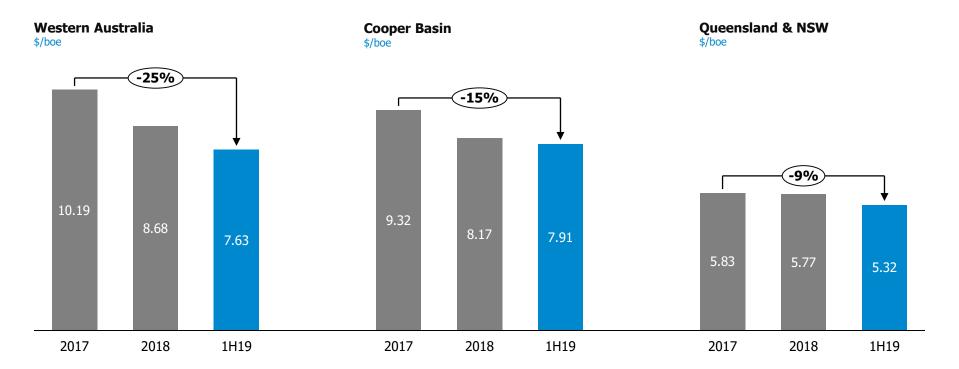
¹Operating cash flows less investing cash flows (net of acquisitions and disposals and major growth capex) less lease liability payments

- + Portfolio sales volumes balanced between
 - + CPI-linked gas contracts –
 ~35% of 1H19 sales volumes
 - + Oil-linked liquids and gas contracts ~65% of 1H19 sales volumes
- + Strong free cash flow of \$638 million, up 74%, following the acquisition of Quadrant Energy
 - + All assets free cash flow positive at <US\$40/bbl
- 2019 forecast free cash flow breakeven lowered to ~\$31 per barrel
 - + In-line with 2018 notwithstanding higher capex in 2019
 - + Every \$10 per barrel increment in oil price above free cash flow breakeven increases free cash flow by \$300-350 million per annum

Continuing to drive lower-cost operations



Disciplined Operating Model delivering lower cash production costs across the operated assets



Disciplined growth leveraging existing infrastructure



Significant growth milestones achieved across all five core assets in the first-half

WESTERN AUSTRALIA

- Dorado-2 appraisal success
 Significant 2C upgrade
- Corvus-2 confirmed higher liquids content and bigger resource volume than expected

COOPER BASIN

- Moomba South appraisal success
- Targeting >150% RRR in 2019
- Highest number of wells drilled in 12 years

PAPUA NEW GUINEA

- LOI¹ signed to acquire interest in P'nyang
- Muruk-2 confirmed significant gas discovery; potential to support PNG LNG backfill or expansion

QUEENSLAND & NSW

- ✓ GLNG equity gas production >600TJ/d
- Record number of wells drilled
- ✓ Gazettal award Eastern Queensland

NORTHERN AUSTRALIA

- Barossa project entered exclusive negotiations with Darwin LNG JV
 - Barossa Subsea
 Production System (SPS)
 contract awarded
- Environmental approval received for McArthur Basin drilling program

Finance & capital management Anthony Neilson CFO



Financial discipline



Strong financial and operating performance driving shareholder value

payments.

Record underlying earnings and free cash flow generation	 + Underlying NPAT up 89% to \$411 million + Free cash flow up 74% to \$638 million + Target forecast free cash flow breakeven¹ lowered to ~\$31/bbl notwithstanding increased onshore drilling activity and offshore WA appraisal program
Continued cost out and efficiency gains	 + Normalised unit production costs down 5% to \$7.27/boe (excludes major shutdowns and impact of PNG earthquake) + Operated asset unit production costs lower + Fastest Cooper Basin total well execution of 4.3 days rig release to rig release
Balance sheet supportive of growth strategy	 + Net debt \$3,351 million, down 6% on YE18 (includes \$359 million AASB 16 Lease liabilities as at 30 June 2019) + Gearing ratio 31% at 30 June 2019. Expected to decline to <30% by the end of 2019 + Interim dividend up 71% to US6cps



Underlying profit up 89% to a record \$411 million

\$ million	1H19	1H18	Change
Product sales revenue	1,974	1,680	18%
EBITDAX	1,260	883	1 43%
Underlying profit ¹	411	217	1 89%
Net profit (loss) after tax	388	104	1 273%
Operating cash flow	1,051	644	1 63%
Free cash flow ²	638	367	1 74%
Interim dividend (UScps)	6	3.5	171%

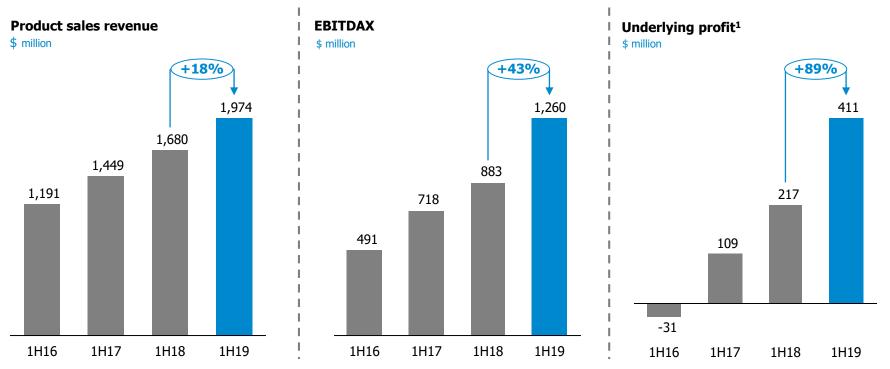
¹ For a reconciliation of 2019 Half-year net profit to underlying profit, refer to Appendix.

² Operating cash flow less investing cash flows (net of acquisitions and disposals and major growth capex) less lease liability payments.

Strong underlying earnings

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Underlying profit up 89% to \$411 million

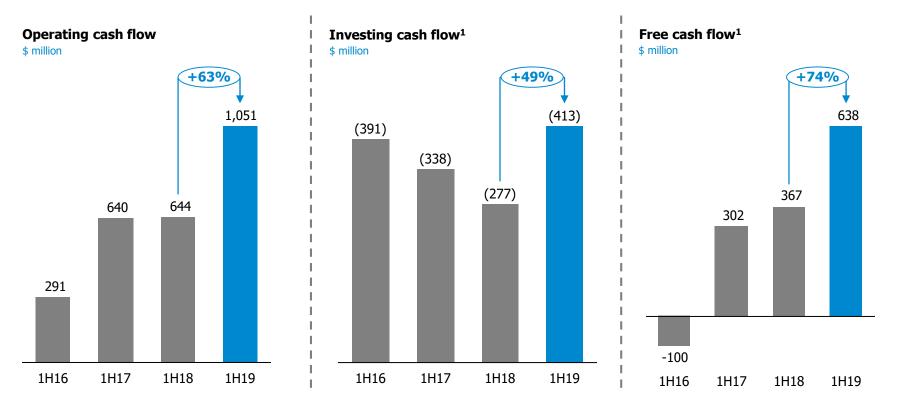


¹ Underlying profit excludes the impacts of asset acquisitions, disposals and impairments, and the impact of hedging.

Strong free cash flow generation



Free cash flow up 74% to \$638 million



Cash generative Operating Model continues to drive value Santos

Diversified portfolio delivering EBITDAX growth and strong margins across all assets

2019 First-half results summary¹

	Cooper Basin	Qld & NSW	PNG	Nth Aust	WA	Santos
Total revenue \$million	568	522	328	85	437	2,043
Production cost \$/boe	7.91	5.32	5.16 ²	21.31	7.63	7.27 ²
Capex \$million	130	133	20	17	140	447
EBITDAX \$million	291	321	283	50	314	1,260
EBITDAX margin	51%	61%	86%	59%	72%	62%

¹ Corporate segment not shown

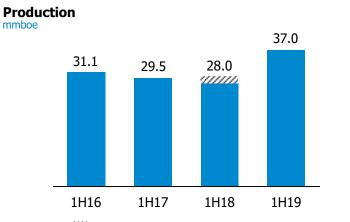
² Normalised for impact of PNG earthquake

- Total revenue up 18% on 1H18 due to higher LNG prices and volumes with the resumption of full production from PNG LNG following the earthquake in 1H18 and higher gas volumes due to the acquisition of Quadrant Energy
- + Normalised unit production costs down 5% to \$7.27/boe
- + Capex 46% higher due to the 4-well WA offshore drilling program, including the successful Corvus and Dorado appraisals, and increased activity across the Cooper Basin and GLNG within the disciplined Operating Model
- + All assets free cash flow positive at <US\$40/bbl
- + EBITDAX up 43% with growth in all assets
- + All assets have EBITDAX margins >50%

Production and sales volumes

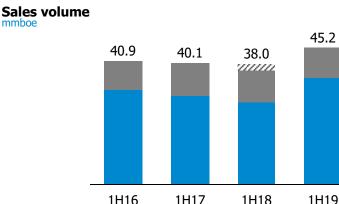


PNG LNG resumes full production and Quadrant acquisition provides significant boost



Major shutdown + PNG earthquake impact

- + Production volumes were 9 mmboe higher than 1H18, mainly due to the resumption of full production in PNG following the impact of the earthquake and the inclusion of Quadrant Energy. This was partly offset by the sale of the Asian assets in September 2018
- + 2019 full-year production guidance maintained at 73-77 mmboe



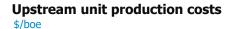
- Own product 📕 Third party 🥢 Major shutdown + PNG earthquake impact
- + Sales volumes were 7.2 mmboe higher than 1H18 as a result of the acquisition of Quadrant Energy and PNG LNG resuming full production following the impact of the earthquake
- + 2019 full-year sales volume guidance maintained at 90-97 mmboe

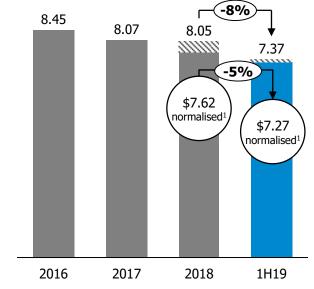
Production costs



Continued cost discipline. Normalised unit production costs down 5% to \$7.27/boe

- + Sustained cost improvement and operating efficiencies
- Unit upstream production costs \$7.37 per boe, down 8%, impacted by PNG LNG earthquake recovery costs in opex
 - Excluding the impact of PNG LNG, normalised unit production costs down 5% to \$7.27 per boe
- Unit upstream production costs lower than YE18 across all operated assets
 - + Western Australia \$7.63/boe, down 12%
 - + Cooper Basin \$7.91/boe, down 3%
 - + Queensland & NSW \$5.32/boe, down 8%
- + 2019 upstream production cost guidance of \$7.25-7.75 includes all shutdown and PNG earthquake recovery costs





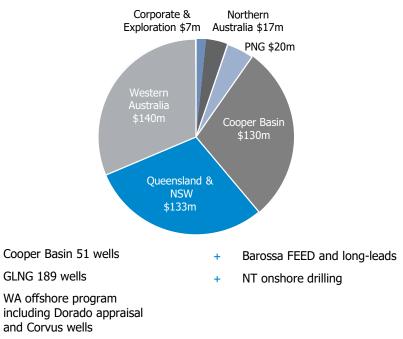
¹ Normalised for impact of planned major maintenance shutdown and PNG earthquake

Capital expenditure

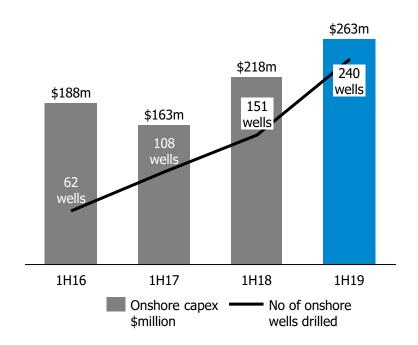


2019 guidance lowered to \$950-1,050 million

1H19 capital expenditure \$447 million¹



Onshore efficiencies. More wells for less capex per well



¹ Capital expenditure incurred includes abandonment expenditure but excludes capitalised interest

+

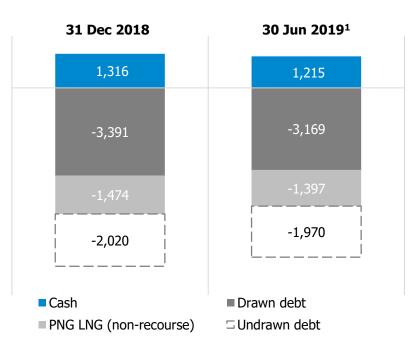
Debt and liquidity



Net debt \$3,351 million. Ample liquidity of \$3,185 million

- Strong free cash flows. Net debt reduced to \$3,351 million (includes \$359 million AASB 16 Lease liabilities) as at 30 June
- + Gearing ratio 31% (including AASB 16) as at 30 June
- + On track to achieve target of <30% gearing by end-2019
- + Ample liquidity in place
 - + \$1,215 million in cash
 - + \$1,970 million in committed undrawn debt facilities
- Portfolio set to deliver growth opportunities and also provides flexibility to divest a minority stake in certain WA assets for value
- + S&P Global Ratings affirmed Santos' BBB- (stable) long-term issuer credit rating on 19 August 2019, noting that the company's strong liquidity supports growth prospects

Cash, debt and undrawn debt facilities \$million



¹ Drawn debt includes \$359 million AASB 16 Lease liabilities standard adopted 1 January 2019

Drawn debt maturity profile



Successful refinancing occurred during the half. No material near-term maturities

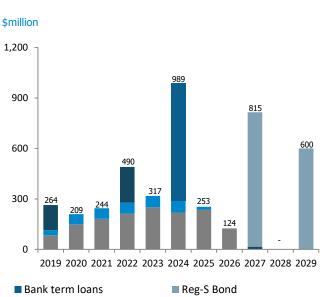
Breakdown of drawn

debt facilities¹

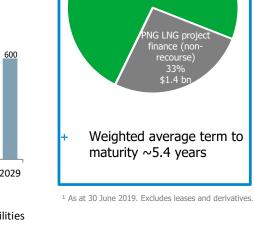
Senior unsecured

67% \$2.9 bn

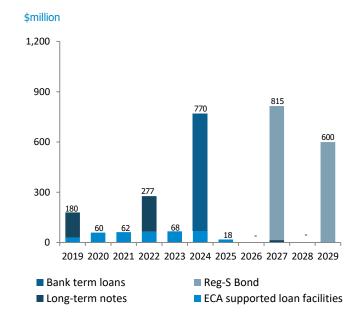




ECA supported loan facilities



Drawn debt maturity profile excluding PNG LNG project finance¹



PNG LNG project finance

Long-term notes

Operations review Kevin Gallagher Managing Director & CEO



¹Excluding integration and other one-off costs

Santos 2019 Half-year results

Western Australia

Quadrant Energy acquisition has transformed the scale of our Western Australia asset. Combination synergies guidance increased to \$50-60 million per annum

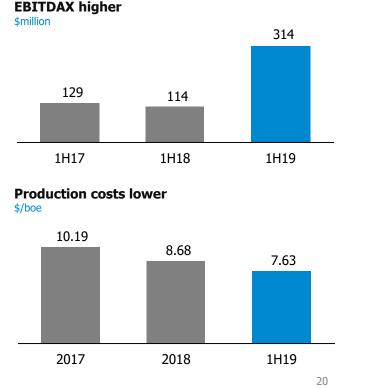
- + Acquisition has provided revenue diversification and increased exposure to high margin, CPI-linked contracts
- + Upstream unit production costs down 12% to \$7.63/boe
- Opportunities to create value through strategic partnering in key assets and ongoing portfolio optimisation
- Considerable developed gas behind pipe available now if access to new markets can be realised

Corvus-2 gas appraisal well

- + Higher liquids content and significantly bigger resource volume than expected
- + Potential to increase utilisation of Devil Creek or Varanus Island gas plants as well as provide backfill and extend plateau well into the 2030s

Combination synergies

- + Combination synergies tracking ahead of expectations
- Guidance increased to \$50-60 million per annum (pre-tax)¹



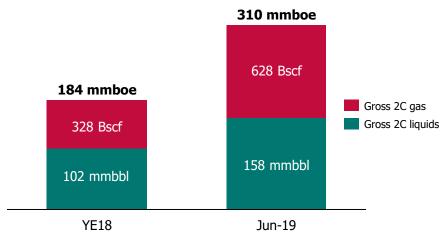


Dorado resource upgrade



Targeting FEED entry early 2020

Dorado gross 2C resource upgrade



Dorado gross & net 2C resource upgrade

		Dec 2018	Jun 2019	
Gross	mmboe	184	310	+68%
Net (STO 80%)	mmboe	147	248	+68%

- + Excellent results from Dorado-2 appraisal well
 - + High quality reservoirs & fluids encountered
 - + Caley formation oil-water contact confirmed
 - + Connectivity to Dorado-1 established for all reservoirs
- + Significant growth in volumes since YE2018 estimate after incorporating Dorado-2 data & ongoing reservoir studies
 - + 2C liquids increased from 102 to 158 mmbbl (gross)
 - + 2C gas increased from 328 to 628 Bscf (gross)
- + Increase in gross P90 liquids from 46 to 107 mmbbl (gross) substantially de-risks development
- + Potential separate recovery and sales of LPG provides opportunity for significant liquids production uplift
- + Key static appraisal uncertainties largely resolved
 - + Dorado-3 will provide critical dynamic & fluid data (from well tests) to underpin field development planning and final investment decision

Refer to slide 42 for cautionary statement regarding Dorado contingent resources estimates.

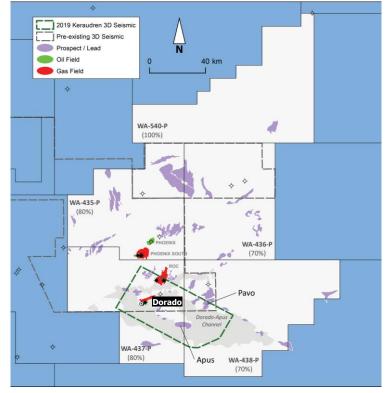
Bedout sub-basin exploration potential



Under-explored basin with substantial running room

- + Dorado discovery proves a world class liquids-rich petroleum system with high quality reservoirs
- + Excellent economics for shallow-water tie-backs to a future Dorado hub
- Sparsely explored with multiple play types, some of which remain untested
- + Subtle traps require high quality 3D seismic data with stateof-the-art processing
 - + Keraudren 3D seismic survey completed during July using world-first acquisition technology
 - + Provides high quality data for field development planning & coverage over key exploration prospects
 - Additional 3D seismic planned as early as 2020 to identify more drilling targets

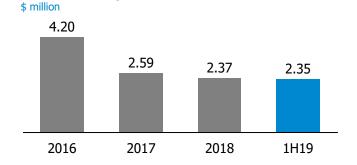
Frontier Bedout sub-basin. High equity position. Extensive exploration inventory



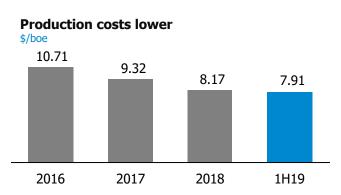
Cooper Basin

Embedded and sustainable cost reductions. Further facilities optimisation and efficiencies identified. Activity levels increasing

- + EBITDAX up 27% to \$291 million
- + Sustainable cost reductions and greater efficiencies delivered as activity levels continue to increase
 - + Upstream unit production costs down 3% to \$7.91/boe
 - + Well cost discipline maintained; average well cost \$2.35m¹
 - + Fastest ever total well execution of 4.2 days, rig release to rig release
- + Expect to drill ~105 wells in 2019
 - 51 well drilled in 1H19; highest number of wells drilled in 12 years
- + Horizontal drilling of wells set to increase



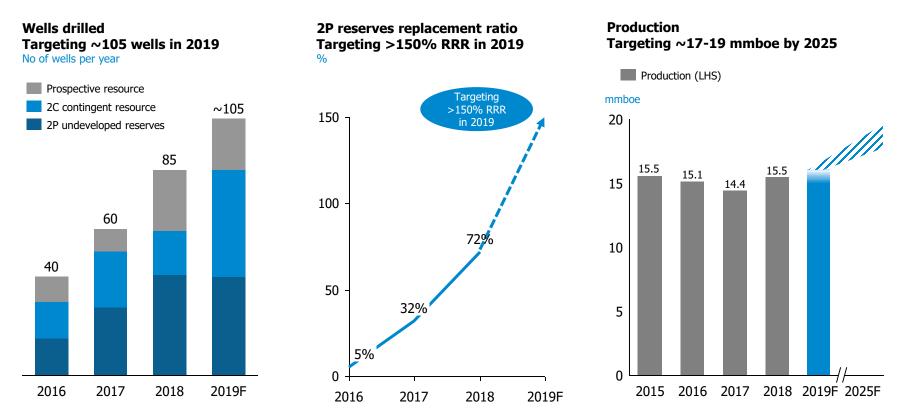
Well cost discipline maintained¹



¹ Vertical and deviated gas development wells (drill, stimulate, complete)

Cooper Basin targeting >150% reserve replacement in 2019 Santos

Targeting ~17-19 mmboe production by 2025



Cooper Basin opportunity hopper



Significant hopper of opportunities to increase production and drive value

Moomba South Phase 2

- + Field development planning is ongoing, target FID by year-end
- + Reserve upgrade expected at year-end
- + Further opportunities remain in flank areas and the recently discovered Granite Wash play

Barrolka-Durham Downs Phase 1

- + Sanctioned Feb 2019; 17 wells; on budget and schedule
- + First well on-line July 2019

Improving equipment uptime

- + Significant potential to grow production by increasing uptime
- + Satellite/compressor/equipment rationalisation
- + Evaluating compression electrification with renewables

Cooper Deep Coal Play

+ Significant prospective resource

Energy Solutions

- + Carbon capture utilisation and storage (CCUS) project
 - + Pre-Front End Engineering and Design (FEED) commenced
 - 2 appraisal wells drilled; pressurised cores acquired; analysis ongoing
- Cooper oil beam pump conversion to solar; 22 conversions this year with 34 planned in 2020
- + Port Bonython 2MW solar project online June 2019



Queensland and NSW

Cost discipline and efficiency focus maintained GLNG Roma East and Arcadia development projects on-track

Lower average well and production costs

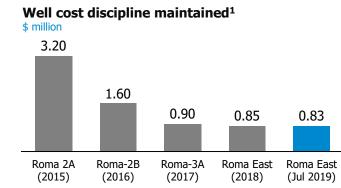
- + Upstream unit production costs down 8% to \$5.32/boe
- + Well cost discipline maintained; Roma East average well cost \$0.83m¹
- + Record 189 wells drilled in the first-half
 - + Roma East 480-well development on-track; 181 wells online
 - Arcadia field development on-track; 95 of 136 wells drilled; 23 wells online and dewatering

Eastern Queensland

+ ATP 2045 (gazettal PLR2018-1-5) awarded to Santos (50% Operator) / (Shell 50%) Joint Venture

Narrabri Gas Project

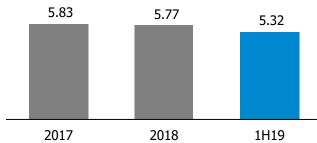
- + Moved to the Assessment Phase by the NSW Department of Planning and Environment
- + 100% of Narrabri gas earmarked for the domestic market
- + Gas supply MOUs signed with Perdaman, Brickworks and Weston Energy



¹ Drill, complete, connect

Production costs lower

\$/boe







GLNG ramp-up on track

Santos

GLNG on track to meet ~6 Mtpa annualised sales run-rate including LNG volumes redirected to the domestic market by the end of 2019

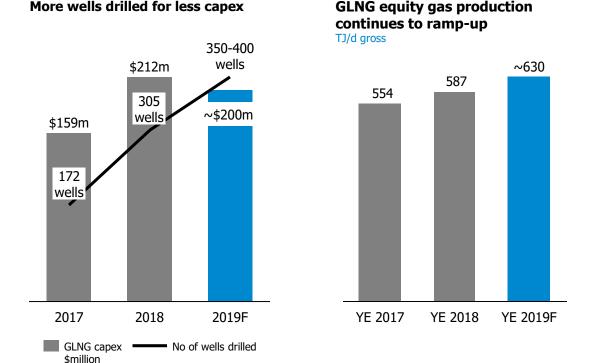
Building equity gas supply

- Increasing drilling activity consistent with the Santos disciplined operating model; expect to drill 350-400 wells per annum in 2019
- + Equity gas production growing year-onyear

On track to ramp-up GLNG sales to ~6 Mtpa run-rate by the end of 2019

+ Including LNG volumes redirected to the domestic market for 2018-19

GLNG ullage to 8.4 Mtpa capacity provides opportunity for organic and inorganic growth



Northern Australia



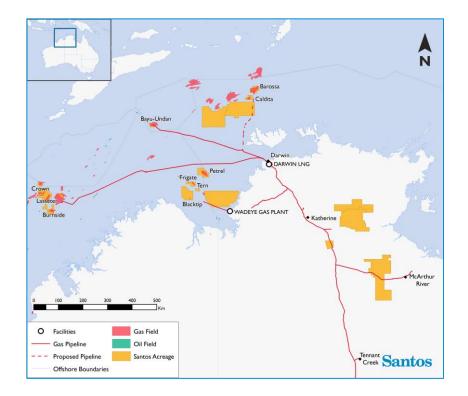
Open to growth via significant discovered resource base and existing infrastructure

Barossa backfill to Darwin LNG

- Barossa project entered exclusive negotiations with the Darwin LNG JV for the supply of backfill gas
- + Subsea production system contract awarded
- Tender evaluation ongoing for FPSO, gas export pipeline, SURF and drilling rig packages
- + Production Licence application and Field Development Plan well progressed
- + Final investment decision (FID) expected early 2020

Onshore exploration and appraisal

- + Dukas-1 exploration well suspended prior to reaching the primary sub-salt objective due to higher than expected formation pressures
- + The extended drilling time at Dukas-1, combined with the impending commencement of the 2019 wet season in the NT, has led to the deferment of the McArthur Basin drilling program until 2020
- Plans to conduct a test of the original Tanumbirini-1 well in 2H19 remain on-track



PNG LNG continued strong production



Aligned acreage position in highly prospective region

PNG LNG

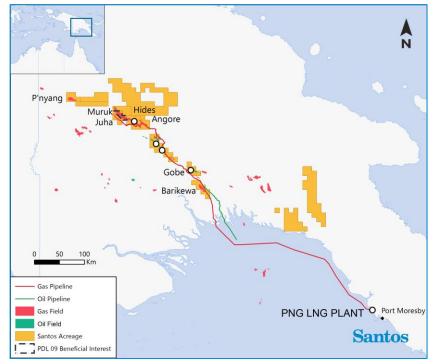
 Continuous optimisation of the facilities has resulted in record daily rates >9 Mtpa annualised

Expansion

- Binding letter of intent signed to acquire 14.3% interest (pregovernment back-in) in P'nyang (PRL 3)¹
- + Working with JV partners and PNG Government to finalise farm-in and gas agreement

Muruk-2 appraisal

+ Significant gas resource confirmed 21 kilometres northwest of the Hides production facilities



¹ P'nyang (PRL 3) farm-in subject to the execution of a sale and purchase agreement and government approval

Long-term LNG market dynamics remain favourable



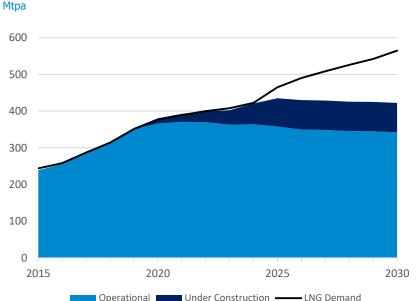
Santos' LNG portfolio well positioned with strong long-term contracts and brownfield backfill and expansion opportunities at DLNG and PNG LNG

Strong contracted LNG position

- >95% of current LNG volumes sold on long and mid-term contracts
- + Minimal exposure to spot market
- + Price review negotiations limited by contract terms

Santos' portfolio well-positioned to support LNG demand

- Low-risk brownfield backfill and expansion opportunities; globally competitive cost of supply
- Material undeveloped gas resources in close proximity to existing infrastructure
- Shipping advantage due to proximity to key Asian markets
- + Source of diversification for LNG buyers
- + Renewed interest from buyers for long-term contracts
- Advanced discussions with a number of LNG buyers for Barossa volumes



¹ Source: Wood Mackenzie LNG Tool Q2 2019 data

Global LNG supply / demand¹

Supporting east coast gas supply



Australia's lowest cost onshore operations focused on increasing production and reserves

- On track to supply more than 70 PJ of gas into the east coast market in 2019; approximately 14% of demand
- AEMO has forecast that the east coast domestic market will remain well supplied until 2023
- Santos' low-cost onshore operations are well-placed to support the east coast domestic gas market
 - + Cooper Basin activity levels increasing; production and reserves replacement forecast to grow
 - + Increasingly meeting export commitments with Queensland gas to free up Cooper Basin gas for southern markets
 - + GLNG committed to HOA signed with Federal Government to ensure the domestic market remains supplied
- Santos is supportive of a prospective gas reservation scheme that is complementary to a robust LNG export framework
 - + 100% of Narrabri gas earmarked for the domestic market (subject to project approval)
 - + Santos participated in recent Queensland domestic gas acreage releases



Summary

Santos

Low-cost, diversified portfolio generating strong cash flow. Balance sheet supportive of growth strategy and sustainable dividends

Record first-half free cash flow and earnings	✓
2019 forecast free cash flow breakeven reduced to \sim \$31/bbl	✓
Significant Dorado 2C resource upgrade. Material development project	✓
Barossa tracking to early 2020 FID	✓
Binding Letter of Intent signed to farm-in to P'nyang	✓
Quadrant Energy integration synergies increased	✓
Balance sheet supportive of growth strategy	✓
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Financial performance

EBITDAX up 43% to \$1.3 billion. Underlying NPAT up 89% to \$411 million

\$million	1H19	1H18	Var
Total revenue	2,043	1,727	18%
Production costs	(273)	(243)	12%
Other operating costs	(145)	(160)	(9%)
Third party product purchases	(403)	(426)	(5%)
Other ¹	39	4	875%
Foreign exchange gains	(1)	90	nm
Fair value (losses) on commodity hedges	-	(109)	nm
EBITDAX	1,260	883	43%
Exploration and evaluation expense	(28)	(45)	(38%)
Depreciation and depletion	(460)	(328)	40%
Impairment losses	(38)	(76)	(50%)
Change in future restoration	2	9	(78%)
EBIT	736	443	66%
Net finance costs	(146)	(108)	35%
Profit before tax	590	335	76%
Tax (expense)	(202)	(231)	(13%)
Profit after tax	388	104	273%
Underlying profit	411	217	89%

Santos 2019 Half-year results

- + Total revenue up 18% on 1H18 due to higher LNG prices and volumes with the resumption of full production from PNG LNG following the earthquake in 1H18 and higher gas volumes due to the acquisition of Quadrant Energy
- + Lower unit production costs/boe
- + Santos Ltd and majority of subsidiaries changed functional currency from AUD to USD effective 1 January 2019, reducing exposure to FX gains and losses
- Net impairment charge of \$38 million before tax primarily due to reassessment of abandonment liabilities for Barrow Island and Mutineer Exeter in Western Australia
- Higher net finance costs mainly due to increased interest expense from higher net debt post the acquisition of Quadrant Energy
- + Effective tax rate 34% including PRRT
- Change in PRRT laws retrospectively eliminating the ability to transfer onshore exploration costs resulted in the derecognition of \$10 million in previously recognised deferred tax assets in 1H19

¹ Other includes product stock movement, corporate expenses, other expenses, other income and share of profit of joint ventures nm denotes not meaningful 34

Sales revenue

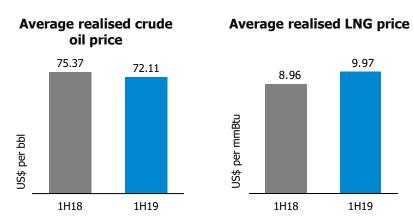


Low cost, diversified portfolio buoyed by higher commodity prices

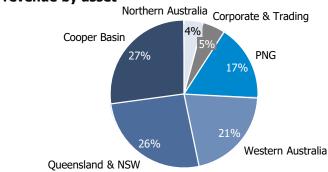
\$million	1H19	1H18	Var
Sales Revenue (incl. third party)			
Gas, ethane and liquefied gas	1,364	1,114	22%
Crude oil	402	400	1%
Condensate and naphtha	161	132	22%
Liquefied petroleum gas	47	34	38%
Total ¹	1,974	1,680	18%

¹ Total product sales include third-party product sales of \$475 million (2018: \$522 million)

- + Sales revenue up 18% to \$2 billion
- + Average realised LNG price up 11% to \$9.97/mmBtu
- + Average realised oil price down 4% to \$72.11/bbl
- + Santos' high-quality crudes in Western Australia and the Cooper Basin achieving a strong premium to benchmarks







Free cash flow



Calculation of 2019 first-half free cash flow

\$million	1H19	
Operating cash flows	1,051	
Deduct Investing cash flows	(359)	
Deduct Net acquisitions and disposals	(26)	
Deduct Lease liability payments	(42)	
Add Major growth capex (Barossa FEED)	14	
Free cash flow	638	

Lease liability payments as now treated as financing cash flows under AASB 16. To ensure like-for-like comparisons with prior periods, the definition of free cash flow has been updated to operating cash flows less investing cash flows (net of acquisition and disposal payments and major growth capex) less lease liability payments.

Free cash flow is a non-IFRS measure that is presented to provide an understanding of the performance of Santos' operations. The non-IFRS information is unaudited however the numbers have been extracted from the financial statements which have been subject to review by the Company's auditor.



Reconciliation of half-year net profit to underlying profit

\$million	1H19	1H18
Net profit/(loss) after tax	388	104
Add/(deduct) significant items after tax		
Impairment losses	26	76
Net gains on asset sales	(7)	(39)
Fair value adjustments on derivatives and hedges	4	76
Underlying profit	411	217

Liquidity and net debt as at 30 June 2019



\$3.2 billion in cash and committed undrawn debt facilities

Liquidity (\$million)	30 Jun 2019	31 Dec 2018	
Cash		1,215	1,31
Undrawn bilateral bank debt facilities		1,970	2,02
Total liquidity		3,185	3,33
Debt (\$million)			
Export credit agency supported loan facilities	Senior, unsecured	371	99
Bank term loan facilities	Senior, unsecured	694	1,19
US Private Placement	Senior, unsecured	409	4(
Reg-S bond	Senior, unsecured	1,378	78
PNG LNG project finance	Non-recourse, secured	1,397	1,47
Leases	Leases	359	67
Other	(42)	(53	
Total debt	4,566	4,86	
Total net debt	3,351	3,54	

2019 Half-year segment results summary



US\$million	Cooper Basin	Queensland & NSW	PNG	Northern Australia	Western Australia	Corporate explor'n & elimins	Total
Revenue	568	522	328	85	437	103	2,043
Production costs	(61)	(33)	(37)	(35)	(114)	7	(273)
Other operating costs	(41)	(39)	(24)	-	(3)	(38)	(145)
Third party product purchases	(194)	(119)	-	-	-	(90)	(403)
Inter-segment purchases	(1)	(36)	-	-	-	37	-
Product stock movement	22	1	8	(2)	21	-	50
Other income	8	28	12	-	-	7	55
Other expenses	(11)	(3)	(4)	(1)	(28)	(16)	(63)
FX gains and losses	1	-	-	-	1	(3)	(1)
Fair value losses on commodity hedges	-	-	-	-	-	(6)	(6)
Share of profit of joint ventures	-	-	-	3	-	-	3
EBITDAX	291	321	283	50	314	1	1,260

2018 Half-year segment results summary



US\$million	Cooper Basin	Queensland & NSW	PNG	Northern Australia	Western Australia	Asia	Corporate explor'n & elimins	Total
Revenue	529	469	217	75	172	134	131	1,727
Production costs	(63)	(38)	(31)	(40)	(50)	(31)	10	(243)
Other operating costs	(31)	(38)	(22)	-	(8)	(8)	(53)	(160)
Third party product purchases	(200)	(120)	-	-	-	-	(106)	(426)
Inter-segment purchases	(3)	(33)	-	-	-	-	36	-
Product stock movement	-	(5)	2	1	2	(2)	(4)	(6)
Other income	3	54	-	-	10	-	1	68
Other expenses	(7)	(6)	(1)	(2)	(14)	(1)	(28)	(59)
FX gains and losses	1	2	-	-	2	-	85	90
Fair value losses on commodity hedges	-	-	-	-	-	-	(109)	(109)
Share of profit of joint ventures	-	-	-	1	-	-	-	1
EBITDAX	229	285	165	35	114	92	(37)	883

Oil price hedging



Oil price hedging provides protection to oil price downside

Open oil price positions	2019	2020
Swaps (barrels)	480,000	
Brent fixed swap price (\$/bbl)	US\$63.23	
Re-participating swaps (barrels) ¹	240,000	
Brent fixed swap price (\$/bbl)	US\$67.39	
Brent long call price (\$/bbl)	US\$76.00	
Zero-cost collars (barrels) ²	4,734,000	
Ceiling (\$/bbl)	US\$79.83	
Floor (\$/bbl)	US\$51.35	
Re-participating 3-Ways (barrels) ³		4,180,000
Brent long call price (\$/bbl)		US\$77.64
Brent short call price (\$/bbl)		US\$70.00
Brent long put price (\$/bbl)		US\$55.00

As at 30 June 2019

- 1. When Brent price is below the weighted average long call price, Santos realises fixed swap price. When Brent price is above the call strike price, Santos realises Brent price less the difference between the long call price and the fixed swap price.
- 2. When Brent price is above the weighted average ceiling price, Santos realises ceiling price. When Brent price is between the floor and ceiling price, Santos realises Brent price. When Brent price is below the floor price, Santos realises floor price.
- 3. When Brent price is above the weighted average long call price, Santos realises Brent price less the difference between the long call price and the short call price. When Brent price is between the short call price and long call price, Santos realises short call price. When Brent price is below the long put price, Santos realises long put price.

Santos

Cautionary statement regarding Dorado contingent resources estimates

Dorado is located in WA-437-P in which Santos is operator and holds an 80% interest. Dorado-1 confirmed the basis of the discovery by demonstrating the existence of a significant quantity of potentially moveable hydrocarbons in the Caley, Baxter Crespin and Milne reservoirs by sampling, testing and logging procedures. Dorado-2 successfully appraised the down-dip extent of the field and reaffirmed the basis of discovery and updated estimates of moveable hydrocarbons with further sampling, testing and logging. Drilling of the Dorado-3 appraisal well was underway as of the date of this presentation and results from the well may alter the estimates contained herein.

In estimating the contingent resources, standard industry techniques combining geophysical and geological modelling and interpretation with reservoir engineering modelling have been applied. 2019 compositional simulation studies have modelled miscible flood with LPG rich gas injection. This provides a gas handling solution and has had a positive impact on the Caley oil recovery factor range and condensate recovery from secondary gas reservoirs (Baxter, Crespin and Milne). There is remaining uncertainty in some of the input parameters and these have been incorporated in the range of outcomes. The key contingencies to prevent classification of reserves are completion of the appraisal program, final development plan and investment decision. Following completion of the Dorado-3 appraisal well, all results will be analysed and expected recoverable volumes reassessed and incorporated into the year-end 2019 annual reserves and resources statement. Firm intention to progress the project will be based on the results of the appraisal program and confirmation of the development concept. Fuel, flare and vent has not been excluded.

Santos prepares its petroleum reserves and contingent resources estimates in accordance with the 2007 Petroleum Resources Management System (PRMS) sponsored by the Society of Petroleum Engineers (SPE). Unless otherwise stated, all references to petroleum reserves and contingent resources quantities in this presentation are Santos' net share. Reference points for Santos' petroleum reserves and production are defined points within Santos' operations where normal exploration and production business ceases, and quantities of produced product are measured under defined conditions prior to custody transfer. Petroleum resources are typically prepared by deterministic methods with support from probabilistic methods.

Conversion factors: 1PJ of sales gas and ethane equals 171,937 boe; 1 tonne of LPG equals 8.458 boe; 1 barrel of condensate equals 0.935 boe; 1 barrel of crude oil equals 1 boe.

All estimates of petroleum reserves and contingent resources reported by Santos are prepared by, or under the supervision of, a qualified petroleum reserves and resources evaluator (QPRRE). References in this presentation to Dorado contingent resources represent an interim estimate as at 30 June 2019. Estimates will be updated as part of the Santos annual reserves process as at 31 December 2019. The estimates of petroleum contingent resources for Dorado in this presentation are based on and fairly represent information and supporting documentation prepared by, or under the supervision of Mr Ian Pedler who is a full time employee of Santos and a member of Society of Petroleum Engineers (SPE). Mr Pedler meets the requirements of QPRRE as defined in Chapter 19 and rule 5.41 of the ASX Listing Rules and consents to the inclusion of this information in the form and context in which they appear in this presentation.