## 2014 CLSA Investors' Forum

Hong Kong, September 2014


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All references to dollars, cents or \$ in this document are to Australian currency, unless otherwise stated.
All references to project completion percentages are on a value of work done basis, unless otherwise stated.
This presentation refers to estimates of petroleum reserves and contingent resources contained in Santos' Annual Reserves Statement released to the ASX on 21 February 2014 (Annual Reserves Statement). Santos confirms that it is not aware of any new information or data that materially affects the information included in the Annual Reserves Statement and that all the material assumptions and technical parameters underpinning the estimates in the Annual Reserves Statement continue to apply and have not materially changed.

The estimates of petroleum reserves and contingent resources contained in this presentation are as at 31 December 2013. Santos prepares its petroleum reserves and contingent resources estimates in accordance with the 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 contingent resources 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. Fuel, flare and vent consumed to the reference points are excluded. Petroleum reserves and contingent resources are aggregated by arithmetic summation by category and as a result, proved reserves may be a very conservative estimate due to the portfolio effects of arithmetic summation. Petroleum reserves and contingent 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.

EBITDAX (earnings before interest, tax, depreciation, depletion, exploration, evaluation and impairment), EBIT (earnings before interest and tax) and underlying profit are non-IFRS measures that are presented to provide an understanding of the performance of Santos' operations. Underlying profit excludes the impacts of asset acquisitions, disposals and impairments, as well as items that are subject to significant variability from one period to the next, including the effects of fair value adjustments and fluctuations in exchange rates. 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.

Cover image: GLNG plant site, Curtis Island

2 | 2014 CLSA INVESTORS' FORUM

## Santos overview

> Australia's leading domestic gas producer
> 2013 production 140,000 boe/d (70\% gas/30\% liquids)
> Top-25 Australian Securities Exchange listed company
> Market capitalisation \$15 billion (September 2014)

| Proved reserves | 620 mmboe |
| :--- | :--- |
| Proved plus probable <br> reserves | 1,368 mmboe |
| 2 C Contingent resources | 1,869 mmboe |
| 2013 production | 51 mmboe |
| Three-year organic <br> reserve replacement ratio | $102 \%$ |

boe/d: barrels of oil equivalent per day
mmboe: million barrels of oil equivalent

## A leading energy company in Australia and Asia



Strong business outlook
> Clear production growth outlook
> Growing margins
> Robust funding position provides the capacity to fund execution of strategy

LNG projects are providing the foundation for further growth and increased shareholder returns


## First-half summary



PNG LNG start-up ahead of schedule and strong progress on GLNG enables significant lift in interim dividend
\(\left.\left.$$
\begin{array}{l|l}\hline \text { Safety } & \text { LTIFR of 0.6 per million hours worked } \\
\hline \begin{array}{l}\text { Strong project } \\
\text { delivery }\end{array} & \begin{array}{c}\text { • PNG LNG start-up ahead of schedule } \\
\text { with first cash received in July }\end{array} \\
\text { • GLNG more than 85\% complete and on } \\
\text { track for first LNG in 2015, within budget } \\
\text { Peluang and Dua projects on line }\end{array}
$$ \right\rvert\, $$
\begin{array}{ll}\text { Sound financial } \\
\text { performance }\end{array}
$$ \begin{array}{l}Underlying profit up 3 \% to \$ 258 million <br>

Operating cash flow up 18 \% to \$ 744 million\end{array}\right]\)| 33\% increase in interim dividend to 20 cents |
| :--- |
| per share fully-franked |

## Production

## PNG LNG start-up drives sound first half and builds momentum for a stronger second half

Average daily production

> First half production up $2 \%$

- PNG LNG first LNG in April 2014
- Peluang first gas in March 2014
) Full-year guidance maintained at 52-57 mmboe
- PNG LNG at full production
- 35-40 day Bayu-Undan/Darwin LNG planned shutdown starts in late-August 2014
- 45 day shutdown of FletcherFinucane/Mutineer Exeter planned for 2H 2014


## Dividends

> Increased dividend consistent with prudent capital management
> Plan to maintain or increase each dividend as earnings and cash flow increase
> It is expected that the level of dividend will next be reviewed around the time of GLNG start-up
) Will strike a balance between higher dividends, debt repayment and ongoing investment for growth

## Start-up and first cash from PNG LNG has enabled the $33 \%$ increase in interim dividend to 20 cents per share fully-franked

Fully-franked dividends declared per share


We have the energy.

## 2014 Highlights

## Three projects delivered, GLNG progressing well and exploration success in the Browse

Vietnam oil Dua project delivered on schedule in July 2014

Indonesia gas Peluang project delivered ahead of schedule in March 2014

| Browse |
| :--- |
| Significant gas-condensate <br> discovery at Lasseter-1 |


| Cooper unconventional |
| :--- |
| 2 horizontal wells drilled |
| 2 wells now on line |

## Malaysia

Farm-in to Block S, first exploration well in Q4 2014

## PNG LNG

Delivered ahead of schedule in April 2014

## GLNG

More than 85\% complete and on track for first LNG in 2015, within budget

## Narrabri

9 appraisal wells drilled and evaluation underway

## Strong Asian demand for LNG

## Large opportunity exists for new projects to supply into the Asian market

> Asia leads global LNG demand with LNG forecast to meet over $50 \%$ of Asia's gas needs

- Asian LNG demand grows at CAGR of $5.5 \%$
- By 2030, over 71\% of global LNG demand comes from Asia
> Large opportunity for new LNG supply
- Over 127 mtpa of uncontracted demand by 2025 ( $\sim 32$ new LNG trains)
- Over 217 mtpa of uncontracted demand by 2030 ( $\sim 54$ new LNG trains)


Source: Wood Mackenzie, LNG supply represents contracted volumes sold into Asia Pacific from global operating and under construction projects.

## Santos' LNG portfolio

Strong project delivery and performance supportive of backfill and expansion opportunities

> $11.5 \%$ equity, 3.7 mtpa plant capacity
> First LNG in 2006, >400 cargoes delivered
> Fully contracted to 2022
> Multiple options for backfill and expansion emerging

> 13.5\% equity, 6.9 mtpa plant capacity
> First LNG cargo in May 2014, >20 cargoes shipped
> 6.6 mtpa contracted to 2034
> Expansion potential: Hides Deep well Q4 2014

> Operator with $30 \%$ equity
> 7.8 mtpa plant capacity, 7.2 mtpa contracted to 2035
> Over 85\% complete, on track for first LNG in 2015

## PNG LNG project

Successful delivery of the project in April 2014. Over 20 cargoes have been shipped since start-up

## PNG LNG plant



## PNG Drilling



## Drilling complete on the Hides G-pad wells and PWD well. Hides Deep expected to be spudded in Q4 2014

> PNG LNG Drilling

- All eight Hides development wells successfully drilled to TD
- Six of these are on production with the two G-pad wells currently being completed
- Hides PWD well has been drilled to TD and is being evaluated to determine the gas water contact for Hides
- First of two Angore development wells expected to spud in Q4 2014
> PNG Exploration
- Hides F1 (Hides Deep, Santos 24\%) expected to spud in Q4 2014
- Gas discoveries at Manta-1 (tested at $42 \mathrm{mmscf} / \mathrm{d}$ ) in PPL 436 and NW Koko-1 (tested at $48 \mathrm{mmscf} / \mathrm{d}$ ) in PPL 261


## The GLNG project is more than 85\% complete and on track for first LNG in 2015



| Project <br> partners | Santos (30\% and operator), <br> PETRONAS, Total and KOGAS |
| :--- | :--- |
| LNG plant <br> capacity | 7.8 mtpa of LNG; 7.2 mtpa has been <br> sold to PETRONAS and KOGAS |
| Gross <br> capital cost <br> estimate | US\$18.5 billion ${ }^{1}$ from FID to the end of <br> 2015 when the second train is expected <br> to beady for start-up |
| LNG train <br> ramp-up | Train 1 first LNG expected in 2015; <br> LNG production expected to ramp-up |
|  | over 3-6 months |
|  | Train 2 first LNG expected 6-9 months <br> after train 1; LNG production expected <br> to ramp-up over 2-3 years |
|  |  |

${ }^{1}$ Based on foreign exchange rates which are consistent with the assumptions used at FID (A\$/US\$ 0.87 average over 2011-15).

## GLNG upstream

## Construction of two upstream gas hubs is complete and commissioning is underway


> 77 wells were spudded in 1H 2014
> Performance of Fairview wells continues to
exceed expectations - average optimum gas capacity of $2.2 \mathrm{TJ} /$ day per well
) Roma wells on line and dewatering, supporting individual well capacity of $0.5 \mathrm{TJ} /$ day; Roma 02-04-01 well producing over $1 \mathrm{TJ} /$ day
) Fairview Hub 5 construction complete, and
commissioning is underway
) Fairview Hub 4 construction complete, and commissioning is underway
> Construction of Roma Hub 2 is substantially complete

Pipeline commissioning commenced, with LNG plant commissioning on track for Q4 2014


| Milestone | Date |  |
| :--- | :--- | :--- |
| Marine crossing tunnelling <br> completed | V | February 2014 |
| Last Train 1 module set | V | June 2014 |
| First LNG tank hydrotest | V | July 2014 |
| Pipeline commissioning <br> commenced | V | August 2014 |
| Last Train 2 module expected on <br> Curtis Island | September <br> First commissioning gas to LNG <br> plant <br> First LNG Train 1 | Q4 2014 |

## Capital expenditure and

 opex guidance
## US $\$ 18.5$ billion $^{1}$ capex from FID to the end of 2015 <br> 2016-20 average capex estimate A\$1 billion pa

Capital expenditure estimate

## FID to end of 2015

| 2016-2020 | $\sim$ A\$1 billion average per <br> annum |
| :--- | :--- |
| Post 2020 | $\sim A \$ 0.5$ billion average per <br> annum |


| Opex average cost estimate |  |
| :--- | :--- |
| Upstream field <br> (excudes electricity and carbon) | $\sim A \$ 1.25 / \mathrm{GJ}$ |
| Downstream <br> (pipeline, plant and port) | $\sim A \$ 150$ million per annum |

${ }^{1}$ Based on foreign exchange rates which are consistent with the assumptions used at FID (A\$/US\$ 0.87 average over 2011-15).
) Vast majority of 2016-20 expenditure is the upstream, and includes:

- Drilling and completion of new wells (~200-300 per annum)
- Connections of new wells, including wellpads, gas gathering lines, water pipelines, and power/communications infrastructure
- Additional compression, water treatment facilities and ponds, trunklines, transmission lines and roads
- Capitalised cost of staff working on upstream capex projects and wages associated with engineering, procurement and construction of upstream capex projects
- Exploration and appraisal
- Domestic gas stay-in-business capex
) Includes maintenance capex for the LNG plant and gas transmission pipeline


## Third party gas supply

## ) Attractive oil-linked gross margins

> Provides operational flexibility in LNG train ramp-up and operation

| Supplier | Quantity | TJ/day | Starts | Term | Delivery point | Price basis |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Santos portfolio <br> 'Horizon' | 750 PJ | 140 | 2015 | 15 years | Wallumbilla | Oil-linked |
| Origin | 365 PJ | 100 | 2015 | 10 years | Wallumbilla | Oil-linked |
| Origin | $194 \mathrm{PJ}^{1}$ | $50-100^{1}$ | 2016 | 5 years | Wallumbilla | Oil-linked |
| Other suppliers | $85 \mathrm{PJ}^{2}$ | $10-15$ <br> $60-100$ | 2015 | 7 years <br> 21 months | Wallumbilla | Oil-linked |
| Meridian JV | $445 \mathrm{PJ}^{2}$ | $20-65$ | 2015 | 20 years | GLNG GTP | Oil-linked 3 |
| Combabula/ <br> Spring Gully | $355 \mathrm{PJ}^{4}$ | $30-50$ | 2015 | 30 years | Fairview | Oil-linked |

1100 PJ firm volume over 5 years. Origin has the option to supply additional volumes of up to 94 PJ during the same period.
2 Source: WestSide Corporation Target Statement of 16 May 2014. Excludes additional gas production by the Meridian Joint Venture beyond 65 TJ/day. Volumes subject to
Meridian field production performance and implementation of expansion plans.
3 Oil-linked from 2016.
4 Santos share 2P reserves in the APLNG-operated Combabula, Spring Gully and Ramyard fields at the end of 2013.

## Bayu-Undan / Darwin LNG

## Strong production in 2014. Progress on Phase 3 offshore expansion. Multiple feed gas options for backfill and expansion emerging

> Maintain high margin asset

- track record of reliable delivery (400+ cargoes since 2006; above contract production)
- Phase 3 expansion underway with first gas expected in 2015
- 35-40 day major shutdown scheduled for Q3 2014
> Backfill and expansion:
- Government approval for 10 mtpa and land available for Train 2 expansion
- Multiple feed gas options available, including Santos' Caldita Barossa, Bonaparte and Browse resources
- Cost effective brownfield development options with quicker execution schedule


## Northern Australia

## Exciting opportunity to target high quality LNG opportunities through partnerships and collaboration



## Browse Basin

## Significant gas-condensate discovery with the Lasseter-1 well, adding to Santos' material resource position in the Browse

## > Lasseter gas-condensate discovery

- Well intersected a gross gas-condensate section of 405 metres
- Wireline logging has confirmed 78 metres of net gas pay in the Jurassic-aged Lower Vulcan and Plover sandstone reservoirs
- Samples confirm excellent mobility in the higher porosity sands in the Lower Vulcan
- Hydrocarbon sampling confirms condensate to gas ratios between $10-25 \mathrm{bbls} / \mathrm{mmscf}$
- Well has reached a total depth of 5,329 mMDRT and will now be plugged and abandoned as planned
> Builds on the existing 2012 Crown discovery


Eastern Australia gas market transformation

Additional supply is required to meet increased demand and Santos well placed to benefit


> Tripling of gas demand creating market tightness
> Recent east coast gas contracts $>\$ 8 / G J$
> New sources of gas required in 2015-2020 to meet supply challenge
) Santos well placed to meet increased east coast gas demand with over 4,600 PJ of net 2 P reserves, $6,700 \mathrm{PJ}$ of 2 C resources and existing infrastructure
) Accelerating Cooper Basin supply
> Narrabri Gas Project progressing
) Encouraging further unconventional exploration
> Increasing infrastructure, transport and processing capability

Cooper Basin
unconventional exploration program

## Building knowledge and technological capacity to 'crack the code'; second horizontal successfully fracced


> Two shale wells are on line and producing

- Moomba-191 on line since October 2012 and currently producing $1.7 \mathrm{mmscf} /$ day, total production to date of $\sim 1.3 \mathrm{Bcf}$
- Moomba-194 producing 0.9 mmscf/day, significant contribution from deep coal zone
> Two horizontal shale wells have been successfully drilled, fracced and flow tested
- Roswell-2H: 550 metre horizontal section drilled, five frac stages placed and production tested at $0.75 \mathrm{mmscf} /$ day
- Moomba-193H: 1,000 metres horizontal section drilled, 10 frac stages placed and production tested at $1.5 \mathrm{mmscf} /$ day
- Successful implementation of multiple frac diagnostic techniques
- Progressing frac capability in unconventional rocks
) Current drilling campaign utilising high spec 3D seismic, targeting potential "sweet-spot" in the Gaschnitz area


## Asia Pacific

Building a high-margin business in Asia, accounting for over $20 \%$ of Santos' first half of production


## Appendix

## Santos

We have the energy.


## 2014 First-half financial result

Growth in sales revenue, EBITDAX and operating cash flow. Underlying profit of $\$ 258$ million, higher than 2013.

|  | 2014 <br> First-half | Change <br> on 2013 |  |
| :--- | :--- | :--- | :---: |
| Production | 25 mmboe |  | $+2 \%$ |
| Sales revenue | $\$ 1,887$ million |  | $+25 \%$ |
| EBITDAX | $\$ 950$ million |  | $+13 \%$ |
| Net profit after tax | $\$ 206$ million |  | $-24 \%$ |
| Underlying profit | $\$ 258$ million |  | $+3 \%$ |
| Operating cash flow | $\$ 744$ million |  | $+18 \%$ |
| Interim dividend | 20 cents per share |  | $+33 \%$ |

## Strong funding position

\$2.7 billion in balance sheet capacity to fund execution of business strategy and minimise financing risk. Minimal debt maturities to 2016



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## Capital expenditure

Full year capital expenditure


Capex of $\$ 1,862$ million $^{1}$ in 1 H 2014, full year guidance of $\$ 3.5$ billion is maintained

Breakdown of 1H 2014 capital expenditure (excludes capitalised interest)

${ }^{1}$ Excludes first-half capitalised interest of $\$ 124$ million.
${ }^{2}$ Other EA includes expenditure on Combabula/Spring Gully, Narrabri, Mereenie and Victoria. ${ }^{3}$ Includes non-LNG project capex of $\$ 65$ million for domestic stay-in-business, appraisal and pre-development, capitalised stripping costs and Santos corporate costs.

## 2014 First-half financials

Half-year NPAT and underlying profit


Underlying profit up 3\% to \$258 million
$\qquad$
Reconciliation of half-year underlying profit


## 2014 guidance

## All 2014 guidance is unchanged

| Item | 2014 guidance |
| :--- | :---: |
| Production | $52-57$ mmboe |
| Production costs | $\$ 820-880$ million |
| DD\&A expense | $\$ 18.50 / \mathrm{boe}$ |
| Royalty related taxation expense $^{1}$ (after tax) | $\$ 60$ million |
| Capital expenditure (including exploration \& evaluation) $^{2}$ | $\$ 3.5$ billion |

${ }^{1}$ Royalty related taxation expense guidance based on an average realised oil price of $A \$ 110$ per barrel
${ }^{2}$ Capital expenditure guidance excludes capitalised interest, which is forecast at approximately $\$ 250$ million in 2014

## 2014 exploration schedule Delivers on our play-based exploration strategy across Australia and south-east Asia

| Well Name | Basin / Area | Target | Santos <br> Interest <br> $\%$ | Result/Timing |
| :--- | :--- | :--- | :--- | :--- |
| Manta-1 | PNG | Gas | $30^{1}$ | Gas discovery |
| Mt Kitty-1 | Amadeus | Gas | 70 | Gas discovery, <br> evaluation operations <br> suspended |
| NW Koko-1 | PNG | Oil / gas | $30^{1}$ | Gas discovery with oil <br> shows |
| Vanuatu-1 | Carnarvon | Oil | 37.5 | P\&A |
| Hon Khoai-1 | Nam Con Son | Oil | 45 | P\&A |
| Lasseter-1 | Browse | Gas | 30 | Gas-condensate <br> discovery |
| Tanumbirini-1 | McArthur | Shale oil / gas | 50 | Drilling |
| Telus-1 | Block S, Malaysia | Oil | 25 | Q4 |
| Hides F1 (Hides Deep) | PNG | Gas | 24 | Q4 |

[^1] ${ }^{1}$ Subject to Government approval

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[^0]:    Charts as at 30 June 2014

[^1]:    

