



# Australia Pacific LNG: Final Investment Decision

First Phase CSG to LNG Project

28 July 2011

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All references to "\$" are references to Australian dollars unless otherwise specified.

A reference to Australia Pacific LNG or APLNG is a reference to Australia Pacific LNG Pty Limited, an incorporated joint venture in which Origin currently holds a 50% interest, which will reduce to 42.5% when Sinopec's investment in APLNG is completed.

A reference to the "NSW acquisition" is a reference to the Integral Energy and Country Energy retail businesses and the Eraring GenTrader arrangements.

# APLNG has approved a Final Investment Decision on the first phase of its CSG to LNG project ...



- ✓ Monetises large domestic gas reserves through international oil-linked energy prices
- ✓ Leverages strong growth in Asian energy markets
- ✓ Initiates development of first LNG train and infrastructure to support a second train
- ✓ First phase of project delivers attractive returns in its own right
- ✓ Marketing for Train 2 well advanced
- ✓ Second train FID to follow, providing additional synergy benefits
- ✓ 2-train, US\$20 billion project delivers estimated revenue stream of around US\$7 billion per annum<sup>1</sup>



... marking the commencement of one of Australia's largest LNG export projects

# The joint venture has agreed to commence the development of a 9 mtpa, US\$20 billion CSG to LNG project ...



## PROJECT OVERVIEW

<b>Description:</b>	<ul style="list-style-type: none"> <li>CSG to LNG project based on Australia's largest 2P CSG reserves base</li> </ul>
<b>Size:</b>	<ul style="list-style-type: none"> <li>Two trains, each with a nominal production capacity of 4.5 mtpa</li> <li>Initial commitment to one train and infrastructure to support a second train</li> </ul>
<b>JV Interests:</b>	<ul style="list-style-type: none"> <li>Sinopec subscription agreement now unconditional; interests post completion to be: Origin Energy 42.5% ConocoPhillips 42.5% Sinopec 15.0%</li> </ul>
<b>Cost:</b>	<ul style="list-style-type: none"> <li>US\$20 billion for two trains, from FID until start-up of Train 2</li> <li>Initial commitment to US\$14 billion<sup>1</sup> for one train and infrastructure to support a second train</li> </ul>
<b>Reserves (at 30 June 2011):</b>	<ul style="list-style-type: none"> <li>2P: 11,775 PJ 3P: 14,742 PJ</li> <li>Additional 10,050 PJ of contingent resources</li> </ul>
<b>Off-take Agreement:</b>	<ul style="list-style-type: none"> <li>4.3 mtpa<sup>2</sup> LNG supply for 20 years to JV partner, Sinopec</li> <li>Off-take discussions for Train 2 well advanced</li> <li>Estimated 2-train revenue of around US\$7 billion per annum</li> </ul>
<b>Timing:</b>	<ul style="list-style-type: none"> <li>First gas: Train 1 expected mid-2015, Train 2 expected early-2016</li> </ul>

... committing initial expenditure of US\$14 billion<sup>1</sup> for a 1-train LNG project and infrastructure commitments to support a second train

(1) Excludes the cost of developing the second LNG train itself and the upstream drilling program to support the second train. These amounts will be committed separately at the time of FID for the second train

(2) In calendar year 2015, it is expected cargoes will be delivered at a pro rata rate of 2.5 million tonnes per annum

The joint venture has successfully reached this milestone following a methodical and considered approach



Completed Milestones	Timing (Cal Yr)
✓ Origin and ConocoPhillips form APLNG JV	Q4 2008
✓ Initial Advice Statement submitted	Q1 2009
✓ Curtis Island site selected	Q3 2009
✓ Commenced FEED work	Q4 2009
✓ 2P reserves increased to over 11,000 PJ	Q4 2010
✓ Environmental approvals	Q1 2011
✓ 1-train foundation customer - Sinopec	Q2 2011
✓ Issued major contracts	Q2 2011
✓ Final Investment Decision, first phase	Q3 2011
First Gas, Train 1	mid-2015
First Gas, Train 2	early-2016

### Compelling Project Benefits

- Leverages strong growth in Asian energy markets
- Revenues linked to international oil prices
- Significant contribution to Origin’s earnings once operational

### Robust First Phase Economics

- Train 1 project economics underpinned by high quality, low cost CSG reserves base
- Attractive returns in its own right

### Additional Benefits from Train 2 FID

- Incremental capex for second train benefits from economies of scale

A staged investment enables continued progress towards first gas in 2015, with robust economics and the option to efficiently expand to two trains

# APLNG is well placed to successfully execute all components of the project



- ✓ Strong and aligned joint venture
- ✓ Australia's largest 2P CSG reserves base
- ✓ Australia's largest, and world's largest CSG operators
- ✓ ConocoPhillips owner of Optimised Cascade® Process
- ✓ ConocoPhillips-Bechtel experience in developing LNG facilities
- ✓ Successful history of working sustainably with communities
- ✓ Robust LNG markets; 1-train off-take secured by Sinopec
- ✓ Appropriate and effective risk mitigation plans
- ✓ Supported by partners with strong funding capacity

APLNG is underpinned by a strong, aligned joint venture that combines Origin's leading position in Australian CSG development and ConocoPhillips' extensive LNG and CSG capabilities ...



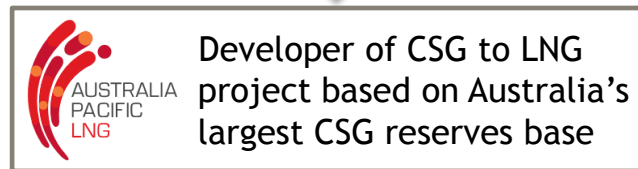
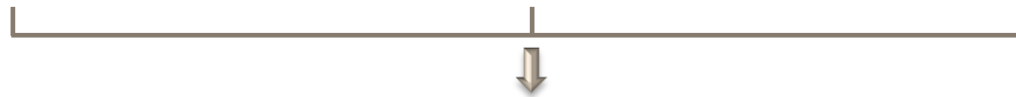
- Australia's largest integrated energy company
- Listed in S&P/ASX 20
- Market capitalisation A\$16 billion (US\$18 billion)<sup>1</sup>



- Integrated energy company with global operations
- World's largest CSG operator with over 25 years' experience
- Market capitalisation US\$106 billion<sup>1</sup>



- Integrated energy and chemical company
- China's largest petroleum products supplier and second largest crude oil and natural gas producer
- Market capitalisation CNY652 billion (US\$102 billion)<sup>1</sup>



4.3 mtpa LNG off-take agreement for 20 years



**UPSTREAM**

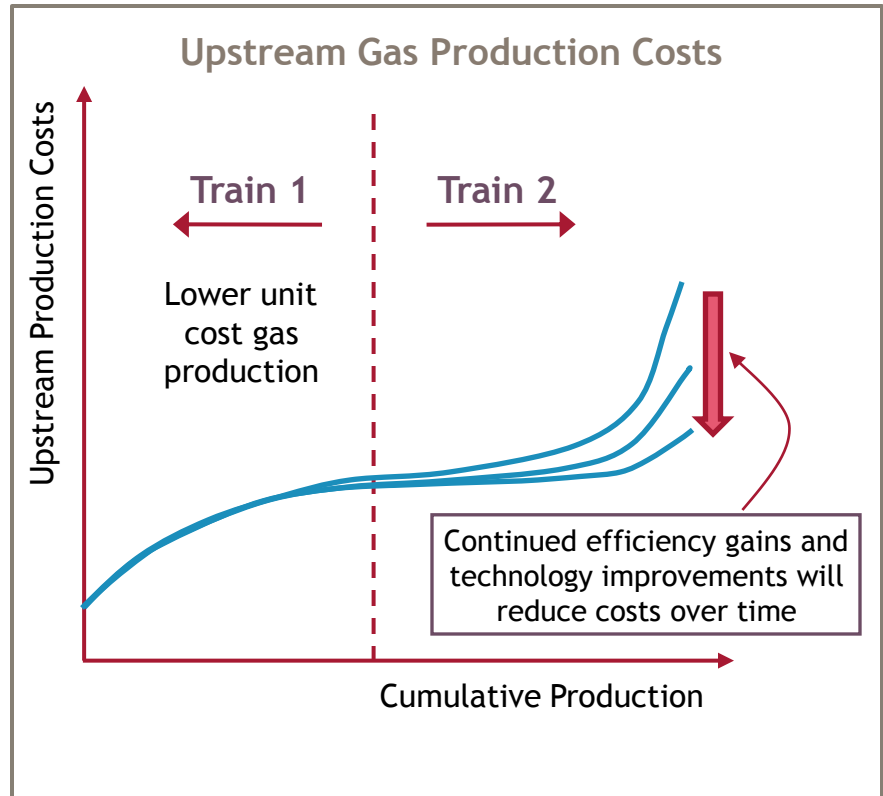
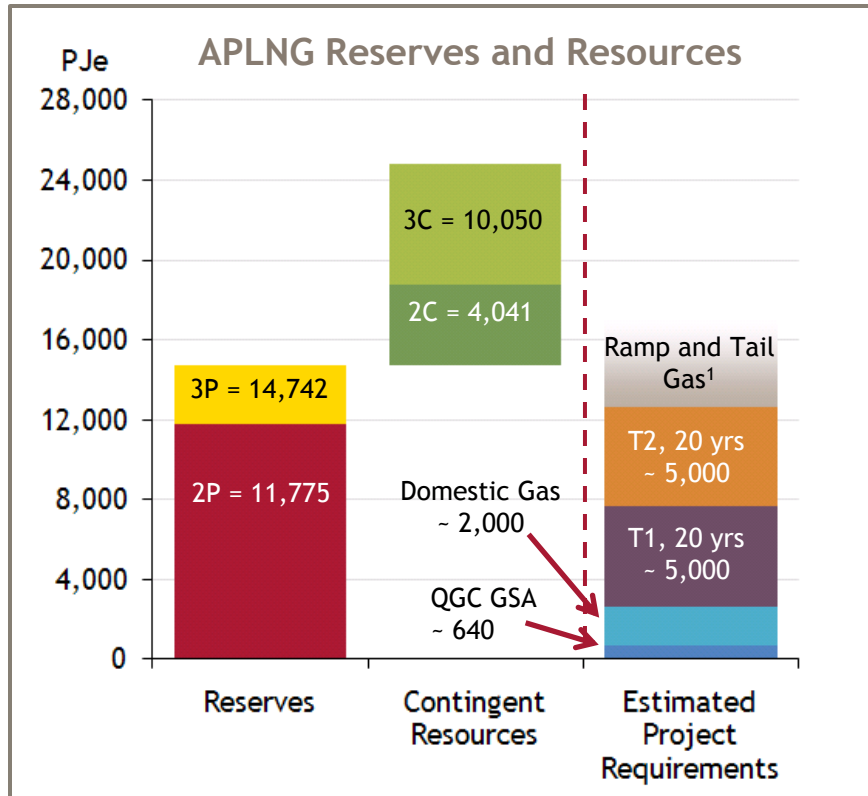
- Operated by **Origin**
- Australia's longest history of CSG production, complemented by ConocoPhillips' 25 years' experience

**DOWNSTREAM**

- Operated by **ConocoPhillips**
- 40 years' LNG experience
- Owner of Optimised Cascade® Process LNG technology

... to supply one of China's leading energy companies, Sinopec

APLNG has sufficient gas to underpin two trains, with 3P reserves of 14,742 PJ and an additional 10,050 PJ of contingent resources ...



- Large CSG reserves position
- Well developed resource base

- Low cost gas supports initial 1-train development
- Prime acreage in both Qld CSG “sweet spots”

... with Train 1 economics supported by high-deliverability, low-cost gas

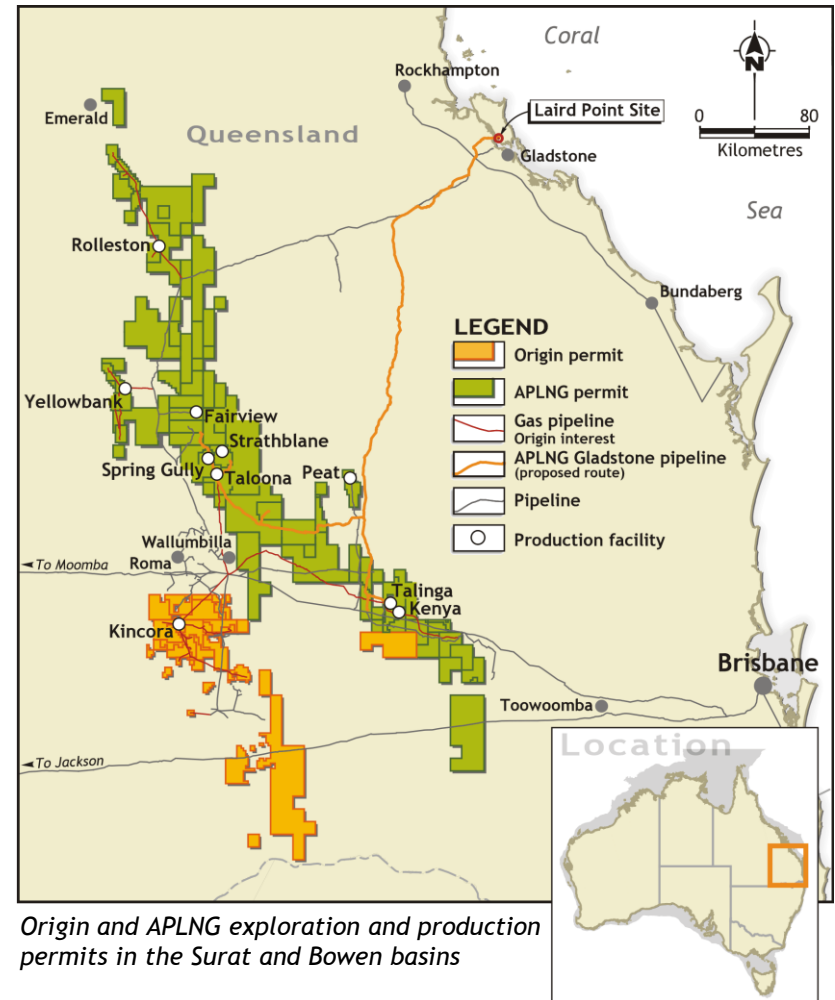
(1) Represents ramp and tail gas for two trains, volume will vary depending on operation strategy

(2) For further information regarding reserves refer to Origin Energy 2011 Annual Reserves Report, dated 28 July 2011

# With Australia's longest history of CSG exploration and production ...



- Leverages Origin's 14 years' CSG production experience
- High value and high productivity fields prioritised for ramp-up period
- Key upstream contracts include:
  - Supply and operation of drilling rigs
  - Upstream facilities
  - Compressor trains for upstream gas gathering facilities
  - Main pipeline construction
  - Supply of steel pipe for main pipeline
- Agreement reached with QGC on a combined pipeline crossing at the "Narrows" between the mainland and Curtis Island



Origin and APLNG exploration and production permits in the Surat and Bowen basins

... Origin will be responsible for the upstream program

# The downstream facility will utilise ConocoPhillips' proprietary Optimised Cascade® Process LNG technology ...



*Artist's impression of the LNG facility*

## Recent ConocoPhillips/Bechtel LNG success

- Darwin LNG Project, 2006
- Constructed by Bechtel and operated by ConocoPhillips
- Project completed below budget
- First LNG 2 months ahead of schedule
- Plant production efficiency exceeded 95%
- Project has similar lean gas characteristics to CSG

- Bechtel, as part of their Global LNG Collaboration with ConocoPhillips, will be EPC contractor for the downstream program
- The project will utilise ConocoPhillips' Optimised Cascade® Process, ideally suited to CSG characteristics
- Using the ConocoPhillips technology licence, Bechtel has delivered 9 LNG trains globally drawing on a history of more than 40 years between Bechtel and ConocoPhillips
- The fixed-price, turnkey contract includes the construction of up to two 4.5 mtpa LNG trains, with firm commitments to Train 1 and a pre-agreed executable option to progress with Train 2
- Liquidated damages apply to Bechtel for delay, and incentives apply for early delivery

... and leverage their successful partnership with EPC contractor Bechtel, underpinned by the ConocoPhillips/Bechtel Global LNG Collaboration

# APLNG continues its commitment to local communities and the environment to operate sustainably ...



## Supporting the Community

- Social Impact Management Plan to identify community needs and direct investment
- Boosting local skills via apprenticeships, scholarships and training
- Regional Community Consultative Committees to receive community feedback
- \$50 Million Community Investment Fund allocated for social infrastructure, sponsorships and donations



## Caring for the Environment

- Comprehensive EIS based on consultation with over 6,000 stakeholders
- Partnered with the CSIRO to support the sustainable development of CSG



## Benefits for Queensland, Australia and Global Energy Markets

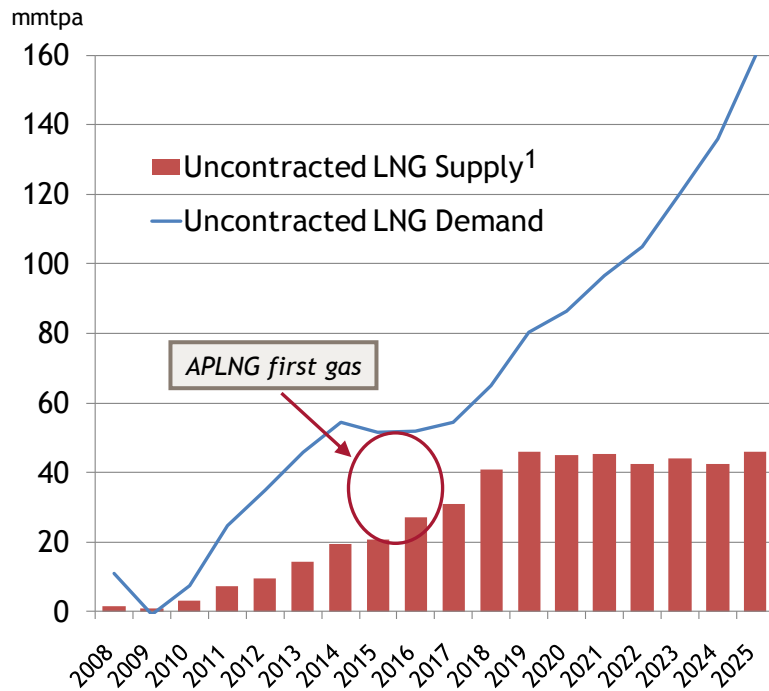
- Creation of 6,000 jobs during peak construction and 1,000 jobs during the ongoing operation of the project
- Will generate Queensland and Commonwealth Government revenue over project life
- Additional source of low emissions energy for global energy markets
- Strengthens Australia's relationships with its Asian neighbours

... through community consultation and investment, integration of environmental management into design, and best practice construction

# Asian LNG markets are robust, with opportunities for long term contracting

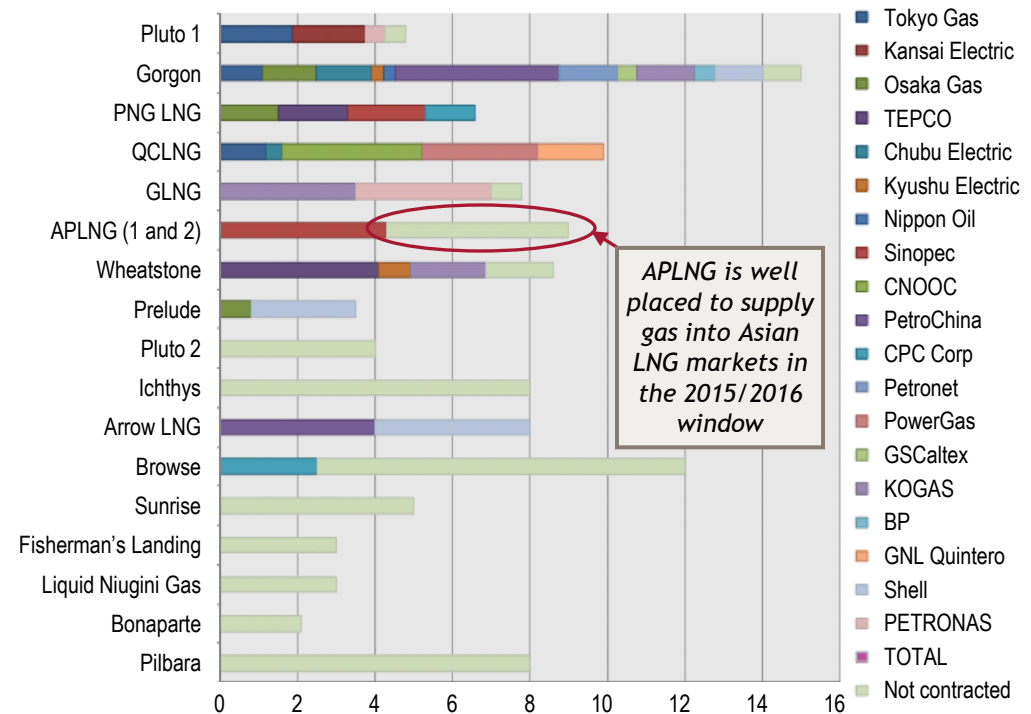


Asian LNG Supply and Demand



Source: Woodmac, May 2011

LNG Contracts by project and buyer Mtpa



Source: EnergyQuest, May 2011

## APLNG remains in advanced discussions with future Train 2 customers

## Estimated capital costs for a 2-train project are US\$20 billion from FID until start-up of the second train ...



- Full 2-Train development:
  - US\$20 billion, including US\$2.5 billion of contingencies
- First phase development (one train and infrastructure to support a second train):
  - US\$14 billion, including US\$1.7 billion of contingencies
- Split between upstream and downstream costs is approximately 50%/50%
- Two-thirds of the costs are denominated in AUD with the balance predominantly in USD
- Contract strategy provides the optimum level of flexibility and cost management with over 60% of the capital costs at fixed/lump sum or unit rate contracts
- Capital costs exclude costs associated with ongoing domestic operations and costs associated with gas sold to third parties over the long term

... with the mix of fixed and variable costs structured to optimise returns by shifting risk to where it can be most efficiently managed

# Appropriate controls and risk mitigation plans are in place ...



## Strong Management and Quality Teams

- Industry leaders engaged for all key contracts and services of the project
- Broad resourcing channels to obtain quality people with specialised skills
- Integration and interfacing team established to drive alignment

## Prudent Contracting Terms

- Key contracts for upstream pipeline and downstream LNG plant are fixed price, lump sum, to minimise exposure to input cost inflation
- Contracts include appropriate liquidated damages for late delivery

## Modularisation

- Local pre-fabrication will be supplemented by offshore pre-fabrication and modularisation to reduce field construction hours

## Efficient Management Strategies

- Upstream resource levelling to optimise utilisation of skilled labour
- Processes in place to incorporate learning curves during execution

## Single Downstream EPC Contractor

- Bechtel is managing three projects on Curtis Island and will be well placed to manage resources between projects to control costs

## Conservative Schedule

- Conservative schedule for all major construction activities

... to minimise financial and operational risks to the project

## Origin will contribute to its share of project costs using a range of existing and new funding facilities ...



- Initial funding requirement will be reduced by Sinopec's gross contribution of \$US1.8 billion for its 15% interest in APLNG (net US\$1.5 billion benefit to ConocoPhillips and Origin)
- Origin will fund its contributions to APLNG from a range of sources including:
  - existing committed undrawn debt facilities and cash totalling around \$3.6 billion<sup>1</sup>
  - up to \$1 billion from an underwritten DRP covering the next four dividend payments<sup>2</sup>
  - new debt facilities, which may include consideration of project financing at the APLNG level
  - cash flows from Origin's underlying business
- Upon commitment of the second train, the project will be further funded through a number of additional options including
  - the issuance of additional shares in APLNG associated with LNG off-take arrangements for Train 2
  - additional funding by APLNG shareholders if required
- FID for the first LNG train has triggered deferral of the first contingent FID payment by ConocoPhillips to APLNG
- Standard and Poor's are expected to confirm Origin's long term credit rating as BBB+ (stable)
- Moody's are expected to confirm Origin's long term credit rating as Baa1 (negative outlook) pending further progress in finalising Origin's funding arrangements for its share of the project

... and will ensure that it has sufficient facilities to maintain its strong balance sheet and fund APLNG and its ongoing business

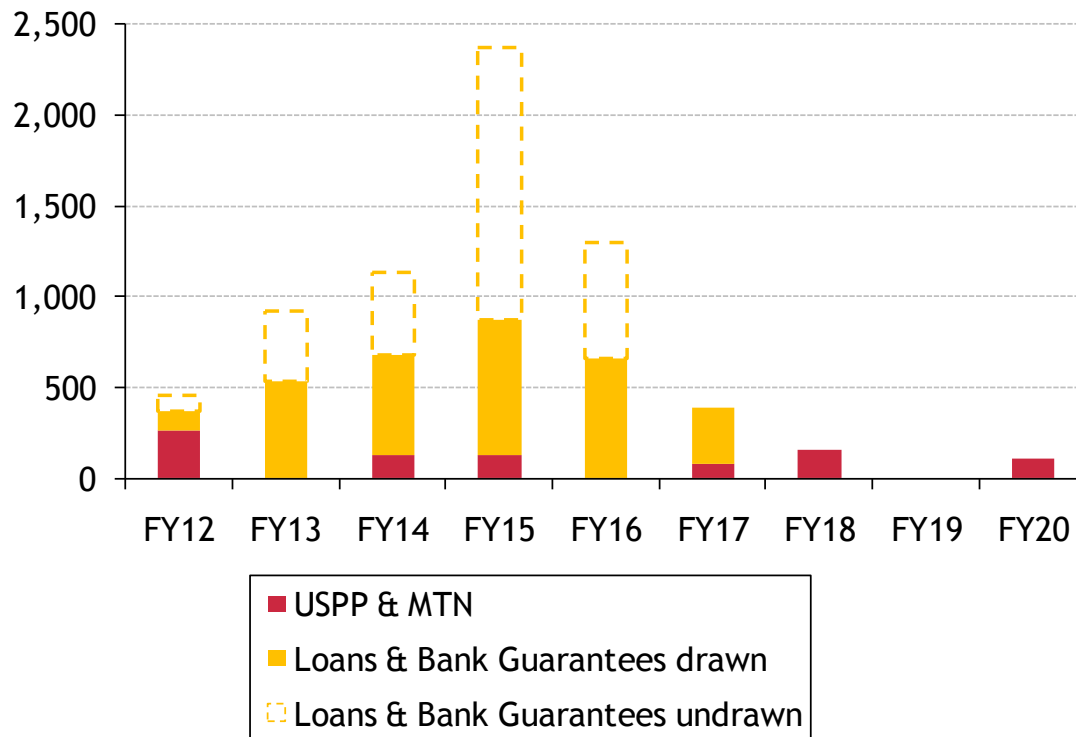
(1) As at 30 June 2011

(2) The underwritten DRP will commence with the final dividend for the financial year ended 30 June 2011 and will apply a 2.5% discount

# Origin had cash and committed undrawn facilities of \$3.6 billion<sup>1</sup> as at 30 June 2011 ...



Origin Debt and Bank Guarantee Maturity Profile as at 30 June 2011



- \$2.3 billion was raised through equity markets via a 1 for 5 pro rata renounceable institutional and retail entitlement offer during March and April 2011 to partly fund the NSW acquisition
- Origin also completed the syndication of a A\$2.15 billion and US\$350 million bank debt facility in April 2011
- Origin raised €500 million (approximately A\$680 million) of hybrid capital securities in June 2011

... and has recently experienced strong support from investors across both equity and debt markets

A final investment decision on the APLNG project will deliver significant value to Origin shareholders, underpinned by robust economics ...



- ✓ Commercialisation of Australia's largest 2P CSG reserves through international oil-linked energy prices
- ✓ Leverages strong growth in Asian energy markets
- ✓ Strong joint venture bringing significant experience and skills to execute the project
- ✓ Significant contribution to Origin's earnings once operational



... a strong balance sheet, and financial flexibility to fund APLNG and its ongoing business

.....  
**Thank you**  
.....

### Further Information

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