

Santos Ltd  
ABN 80 007 550 923  
Ground Floor, Santos Centre  
60 Flinders Street  
Adelaide South Australia 5000

GPO Box 2455  
Adelaide South Australia 5001

Direct: + 61 8 8116 5000  
Facsimile: + 61 8 8116 6723

The Santos logo is displayed in a bold, blue, sans-serif font.

**TO:** ASX Market Announcements  
ASX Limited

**FROM:** Company Secretary

**DATE:** 8 March 2012

**SUBJECT:** CERA Presentation – The next LNG Supply Surge

Please find attached a presentation (The next LNG Supply Surge) which will be presented by David Knox (CEO & MD) at the CERA Conference in Houston on 7 March 2012.

**David Lim**  
Company Secretary

# Disclaimer and Important Notice

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



CBM Drilling, Arcadia Valley, Queensland

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## CERA Week: The Next LNG Supply Surge

David Knox – CEO and Managing Director  
7 March 2012

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Good morning everyone and thank you Michael for that kind introduction.

I am delighted to be here today as our panel considers the important role of natural gas in meeting the world's energy needs.

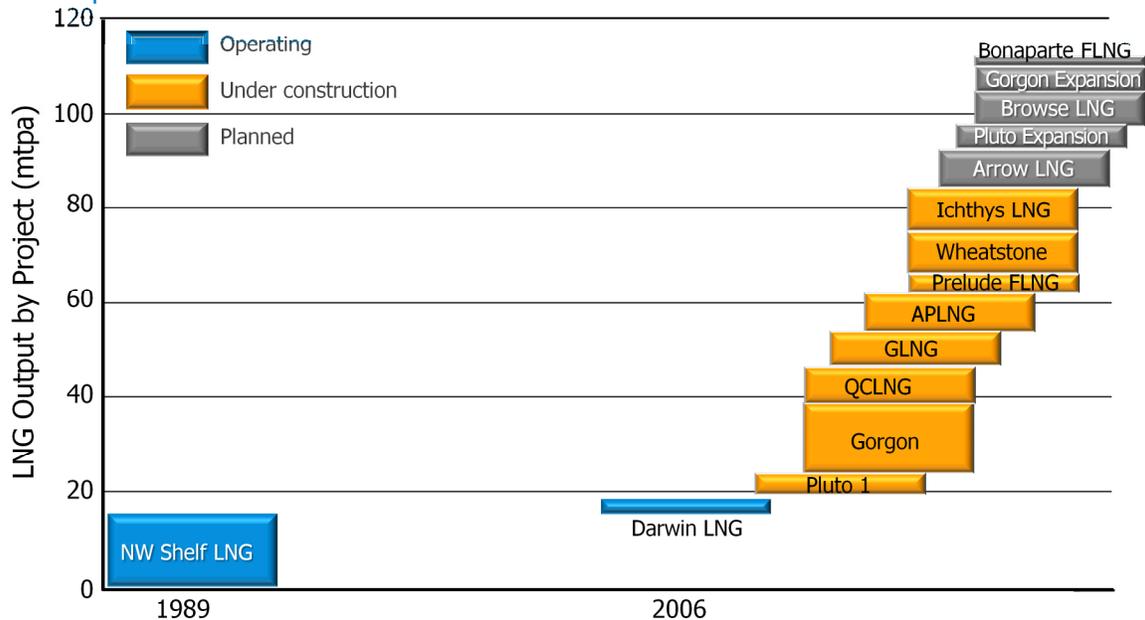
Today I will cover two topics:

- The role of Australia as a major LNG supplier; and
- Australia as the first exporter of LNG from unconventional gas.

I'd like to start with the story of Australia's LNG growth

# Australia's LNG revolution

The pace of development in Australian LNG in the last few years has been exponential



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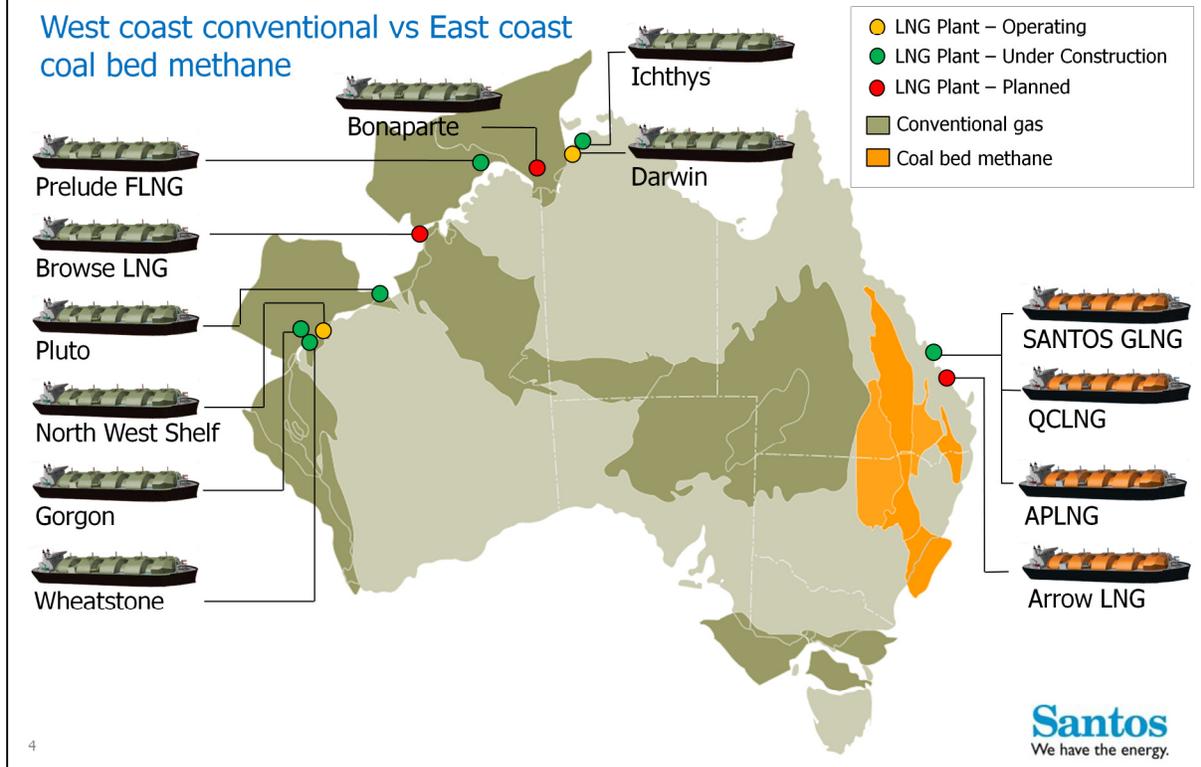
As you can see from this timeline, the overnight growth in Australian LNG has truly been extraordinary!

If we put Darwin LNG aside for the moment, then for over 20 years, Australian LNG was a one horse race.

Turning the clock to 2018, another 8 projects currently under construction will be online. All other things being equal, Australia is predicted to become the world's largest exporter of LNG, at just over 80mtpa.

Of course Australia has more projects in the pipeline as you can see here but not all the planned LNG projects will be developed – in Australia or elsewhere. However, Australia's significance in the global LNG marketplace is clearly expanding.

# Australia's LNG projects



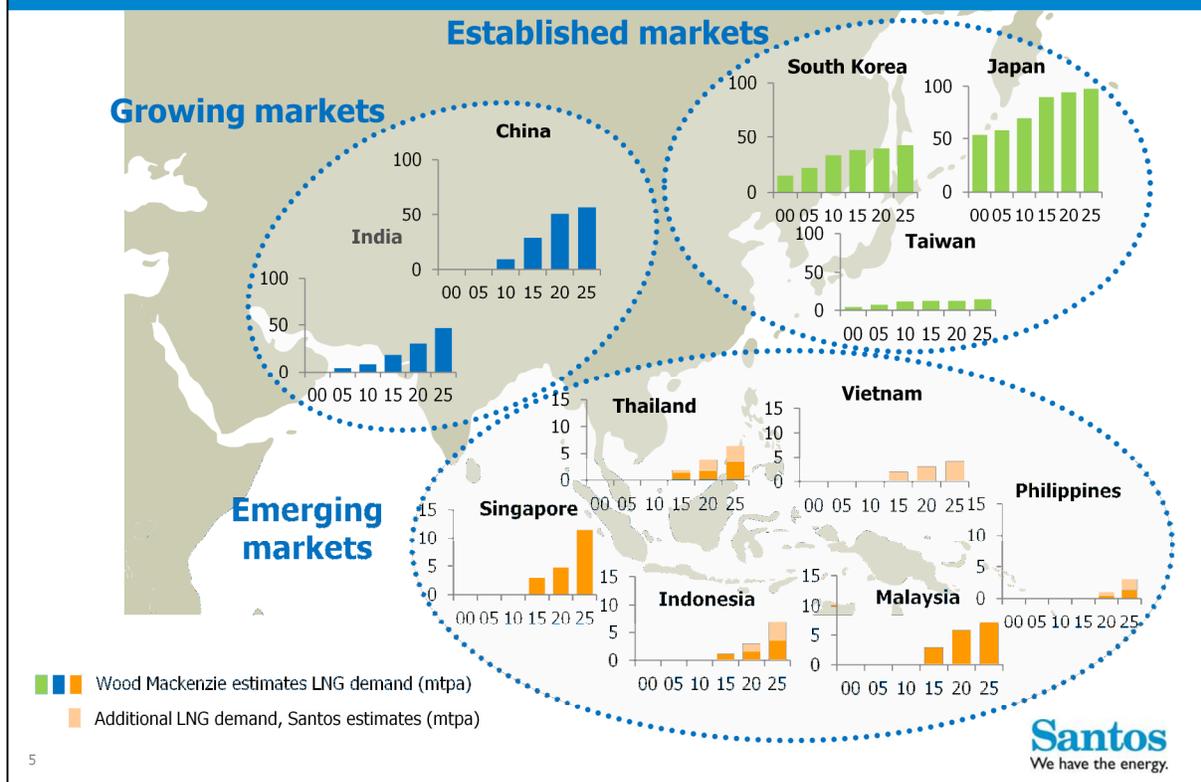
Here is another view of the same data that shows that the story of Australia's LNG industry is one of conventional LNG projects to the west and the pioneering CBM-to-LNG projects over to the east.

The North West Shelf project is, if you like, the grandfather of the Australian LNG industry and has been operating for over 20 years. The other operational LNG facility is Darwin LNG, in which Santos is a partner.

Right now, Australia has about \$180bn of LNG projects sanctioned.

So what has driven this seemingly overnight investment in Australian LNG?

# Strong Asian demand



We see three key factors: Asian demand, Australia’s gas resources and price. First of all, strong demand. And on just about every measure, the driver for future LNG demand comes from Asia. From now until 2025, total Asian demand for LNG is set to nearly double, from around 150 million tonnes to 300 million tonnes. This slide shows you how we look at the Asian LNG marketplace.

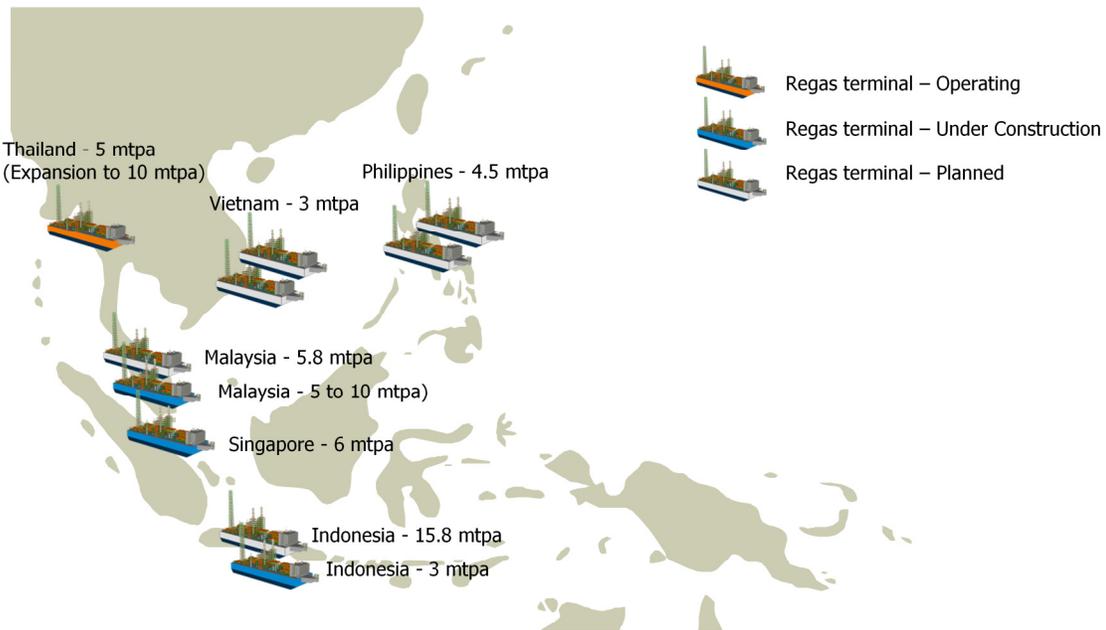
The first group is the Established LNG markets of Japan, South Korea and Taiwan. These established countries are the bedrock of Asian LNG. Their LNG demand is driven by the power generation sector and they continue to seek security of supply and diversification by fuel type. Needless to say the longer term implications from last year’s tragic events in Japan are still to be determined, but none would appear to diminish the likely demand for LNG, especially as debate on the role of nuclear power continues.

The second group is the growing Mega-markets of China and India. These markets are forecast to grow at 10% per annum, and could soon be as significant as the current Established markets.

The third group is the Emerging markets of South-East Asia: countries like Singapore, Thailand, Vietnam and the Philippines. This group includes traditional LNG suppliers – Indonesia and Malaysia – becoming LNG buyers, as domestic demand grows and conventional reserves decline. We are already starting to see this play out.

# The rise of Asian emerging markets

## South East Asian existing and proposed regasification terminals



6 Source: PFC Energy. Units refer to capacity

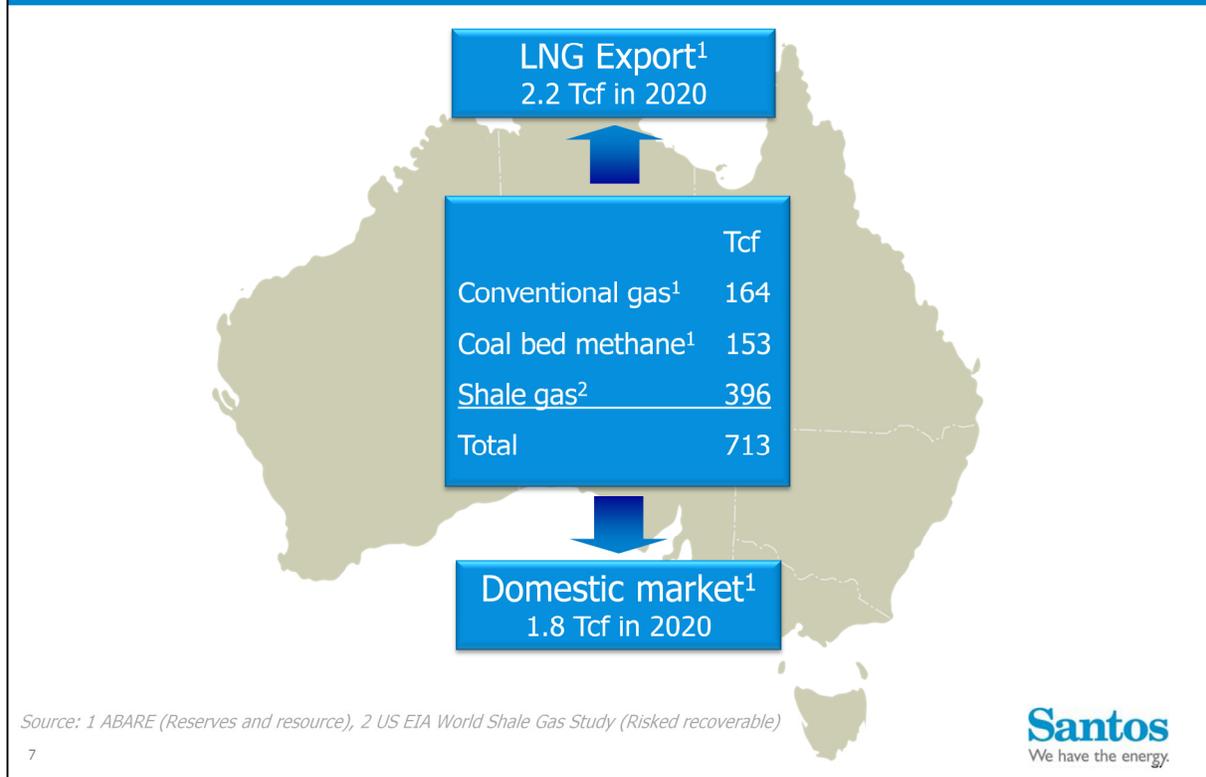
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This map of South East Asia shows existing and proposed regasification terminals, including floating regas which is fantastic technology that I'm sure my co-panellist Rob Bryngelson can tell us more about.

Thailand opened the region's first regas terminal in June last year. They are already fast tracking planned expansion of that facility. Singapore, Malaysia and Indonesia all have regas terminals under construction. Malaysia's Sungai Udang Port in Melaka will take some of our GLNG volumes.

With 10mtpa of LNG already secured, South East Asian countries are now showing signs of becoming major importers of LNG.

# Australian gas: Abundant and Available



The quality of Australia's gas resources is the second important factor that we see.

Australian resources will play a significant role in meeting Asian energy demand.

We are on the doorstep of Asia, but it's not just our close proximity that makes Australia competitive.

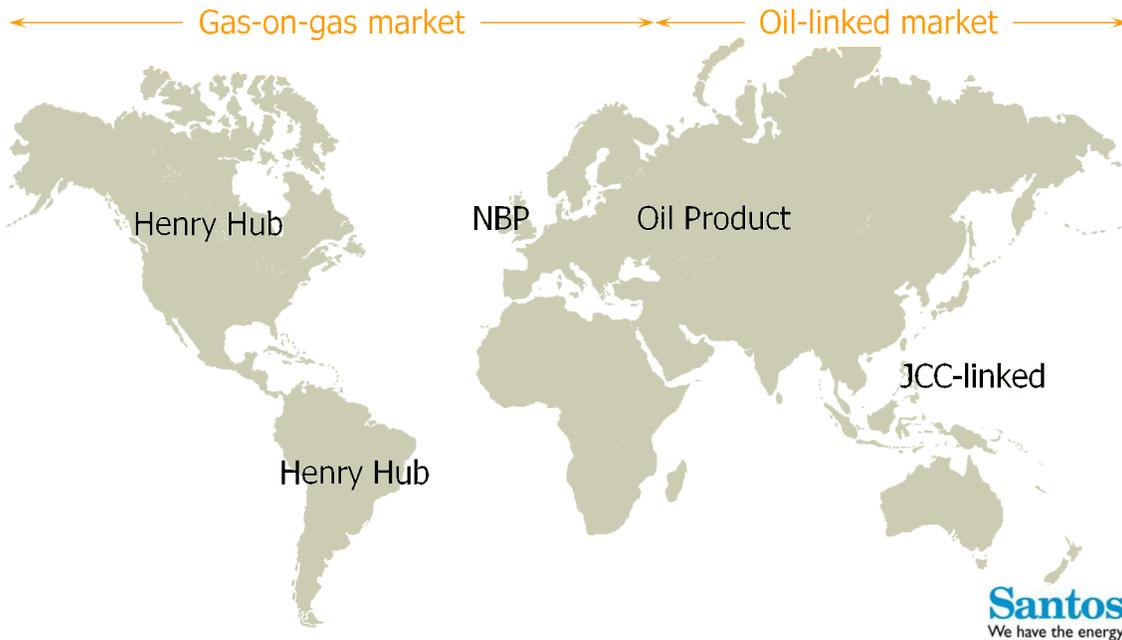
Australia currently has an estimated 317 Tcf of conventional and coal bed methane reserves and resources. Modest when compared to say Qatar or Russia.

But let's consider Australia's domestic demand / supply equation:

Australia consumes about 1 Tcf of gas a year and exports about 1 Tcf a year. And by 2020, Australia's combined domestic and export demand is expected to double to approximately 4 Tcf per year. So Australia has around 80 years of known gas reserves and resources to support both domestic and export markets and this doesn't take into account the shale potential. It is still early days for Australian shale, but the potential is huge, and the existence of a domestic gas and LNG export market will provide the encouragement for industry to explore the shale plays.

# Asia Pacific LNG Pricing

Asian prices projected to remain at a premium to Atlantic gas-on-gas markets driven by security of supply



And so where are we?

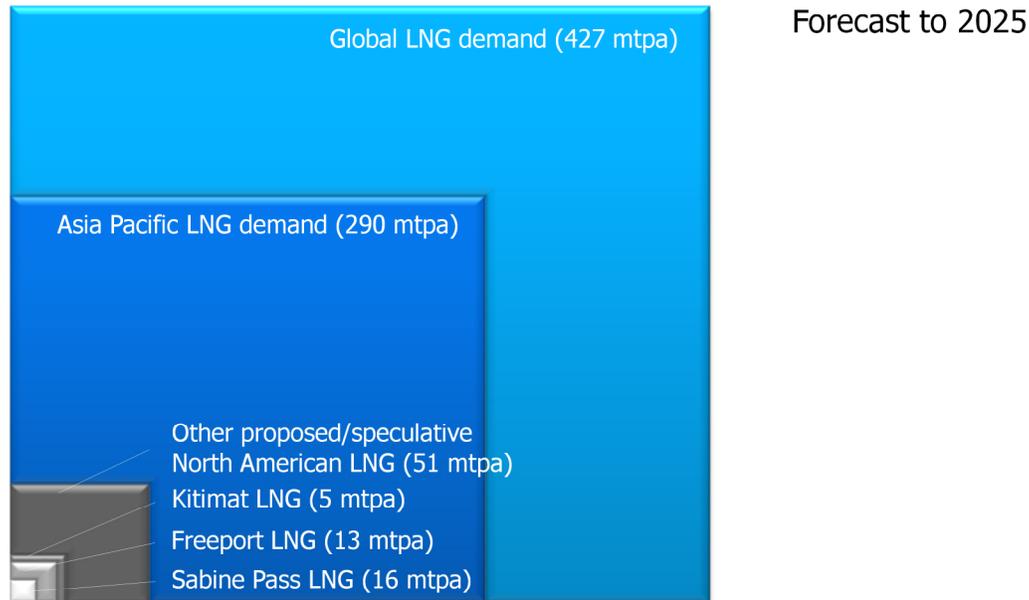
- We see unprecedented Asian demand.
- We know that Australian gas is abundant and available.
- The third factor is price. You must have the right price to support the size and scale of Australian green field projects.

It has been the oil-linked pricing and the opportunity of equity participation for Asian buyers which has facilitated the scale and pace of development of Australian LNG projects. Oil-linked pricing in Asia has evolved over the last 40 years. It has worked because Asian buyers are comfortable that oil is an established, well understood and deeply liquid market. Oil is often the alternative fuel for many LNG importing countries, so it makes sense to have the LNG price linked to the substitute fuel price. There is no global gas price that gives Asian buyers the same level of confidence and so we expect to see long-term oil-linked pricing into Asia.

Therefore whilst the number of global cargos will continue to grow, especially on the spot market, the Atlantic and Pacific basins will remain as two distinct gas hubs, driven by different markets.

# North American LNG offers supply diversification

Growth in global LNG demand underpinned by continued expansion of Asian economies



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Source: Wood Mackenzie

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There has been a lot in the news recently about US shale gas exports into Asian oil-linked markets and we are often asked about the impact of LNG supplies from North America on Asian market dynamics and ultimately – Asia Pacific LNG Pricing. The debate has shifted from “IF” North American exports will happen to “HOW MUCH” and “WHEN”. What I want to focus on is Demand. As you can see, forecast Global LNG demand is strong, and new supply sources will be required to meet the market. Cheniere has been successful in securing offtake agreements of around 16 million tonnes per annum using a simple and easy to understand marketing structure. Gas will come from the existing, well connected US domestic market with prices linked to Henry Hub. The deals with KOGAS and Gail represent significant developments and appetite for new sources of supply. But it remains unclear:

- How much Henry Hub price risk Asian buyers will be willing to take into their portfolios?
- How much LNG will come out of the US? And
- What volumes will be absorbed by portfolio players like BG?

Canadian Greenfield LNG projects will be very different again. They will face many of the same sort of challenges that we have in Australia. And so we anticipate pricing for Canadian LNG will need to reflect these realities.

There are a number of factors and uncertainties which will ultimately determine the level of North American LNG exports. From the chart you can see that any exports are unlikely to have a material impact given the size of global LNG demand. But we are forgetting an important point here if we only focus on price. Buyers want supply diversification. Diversification gives buyers long term energy security. And so ultimately, LNG from all sources will have an important role to play in feeding growing global demand.

# Santos' Unique LNG Portfolio

**Darwin (Santos 11.5%)**  
**Conventional gas supply**



**PNG (Santos 13.5%)**  
**First gas exports from PNG**



**GLNG (Santos 30%)**  
**CBM-to-LNG**



**Bonaparte (Santos 40%)**  
**Floating LNG**



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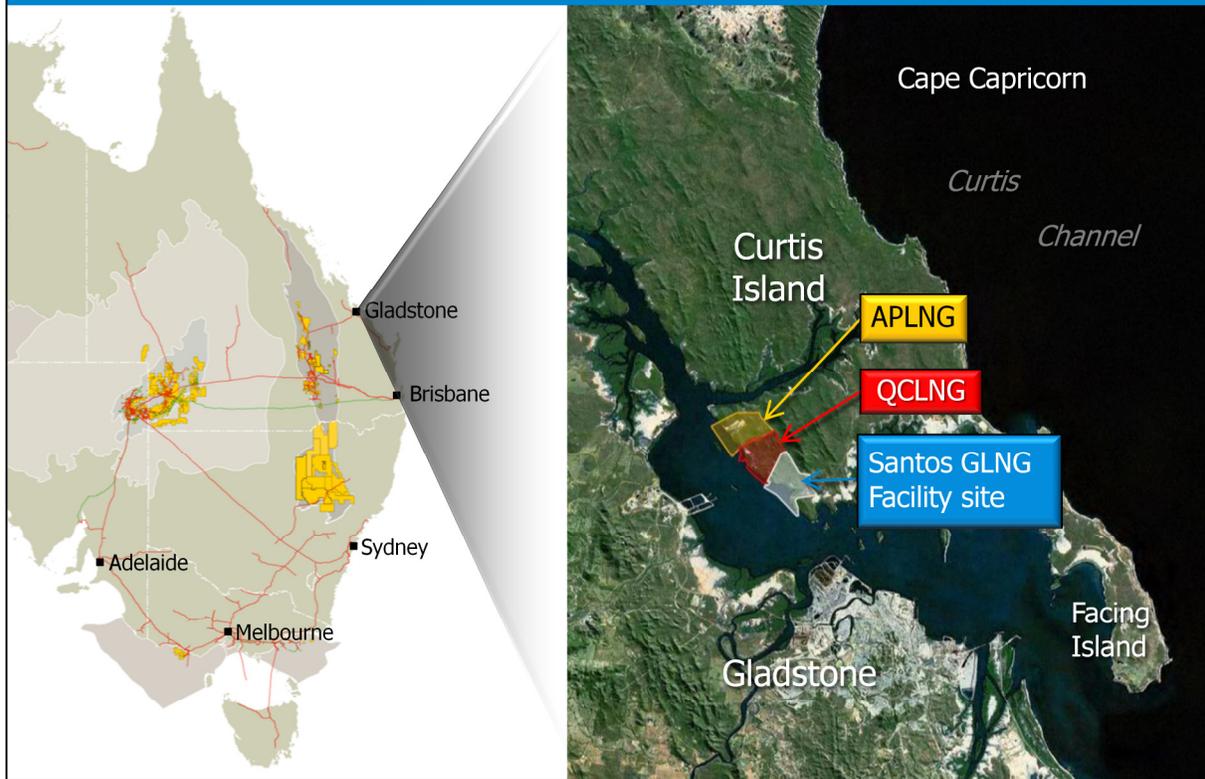
I'd like if I can to say a few words on how Santos fits into this picture.

Santos has equity stakes in 4 LNG projects:

- The operational Darwin LNG project led by Conoco Phillips.
- The sanctioned PNG LNG project led by Exxon.
- The floating Bonaparte LNG project with our partner GDF Suez.

And of particular interest today is the 16 billion dollar - two train - Santos GLNG project in the state of Queensland. This plant will be fed by unconventional gas – that is coal bed methane, which is also known in Australia as Coal seam gas.

# Australia's CBM-to-LNG Projects



In 2007, Santos was first to announce plans for our pioneering CBM-to-LNG project. Along the way we have been joined by world class partners: Petronas, Total and KOGAS.

This map shows the location of Australia's CBM-to-LNG projects. All the plants are located on Curtis Island in the port of Gladstone in Queensland off the east coast of Australia.

Santos' GLNG site is coloured in blue and I have some photos that I will show you next.

The Santos GLNG project is a 7.8 million tonne per annum, two train liquefaction project. The plant is being designed and constructed by Bechtel. Some of these staff are based here in Houston.

One year into the project, construction of GLNG is progressing well. The budget is maintained at \$16 billion from FID until the end of 2015 and I'm pleased to report that we're off to a good start and on schedule for first LNG in 2015. More than 1800 people are working directly on the GLNG project.

Clearing of the LNG plant site on Curtis Island is now complete. Bulk earth works are well advanced, and we've laid the first concrete for the Train 1 compressor foundations.

# GLNG is progressing well



This photograph shows an aerial view of the GLNG site on Curtis Island.

Quickly, I would just like to take you through a few highlights from this site. As you look at the photograph, on the top left, that is where our LNG offloading jetty will be located.

Moving to the right, we'll have the tanks and then on the right hand side, at the top of the photograph, the two LNG trains.

On the left, you see the haul road, which goes to our material offloading facility on Hamilton Point.

What I would really like to point out is that wherever it has been possible, we've done everything we can to preserve the mangroves.



CBM Drilling, Arcadia Valley, Queensland

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So as you can see, Australia's significance in the global LNG marketplace is clearly expanding.

As Asia continues to grow, Australian LNG will play a key role in providing our neighbours with a cleaner burning fuel that's both available and affordable.

Our pioneering CBM-to-LNG projects, including Santos' GLNG project will add around 30 million tonnes of new LNG supply, and will contribute to providing Asian customers with long term energy security.

I thank you for this opportunity to address the delegates at this prestigious industry event and now hand you back to Michael.