

Confidential

# Credit Suisse Presentation to Australian Institute of Energy (Sydney)

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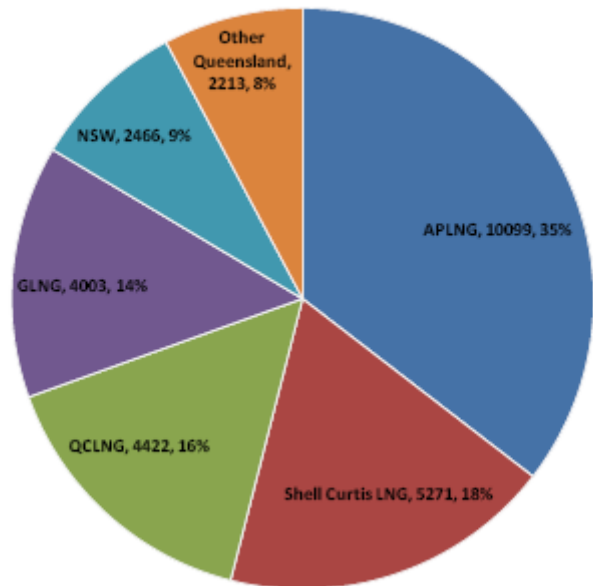
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# Themes

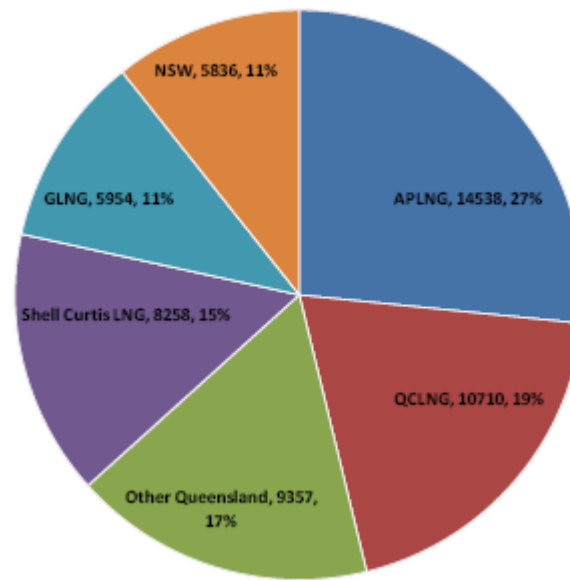
- NSW is short indigenous gas
- Growth is constrained by new demand, confidence in production
- Drivers
  - Gas fired generation for peak demand
  - Wind generation which needs gas for backup
  - Retailers will be the drivers
  - Wild card is ETS
- Financing for generation will come from the retailers
- NSW LNG is a distant possibility, but gas swaps are possible

# NSW gas reserves – small but growing

CSG 2P Reserves August 2010 PJ



CSG 3P Reserves August 2010 PJ



Source: EnergyQuest

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EnergyQuest

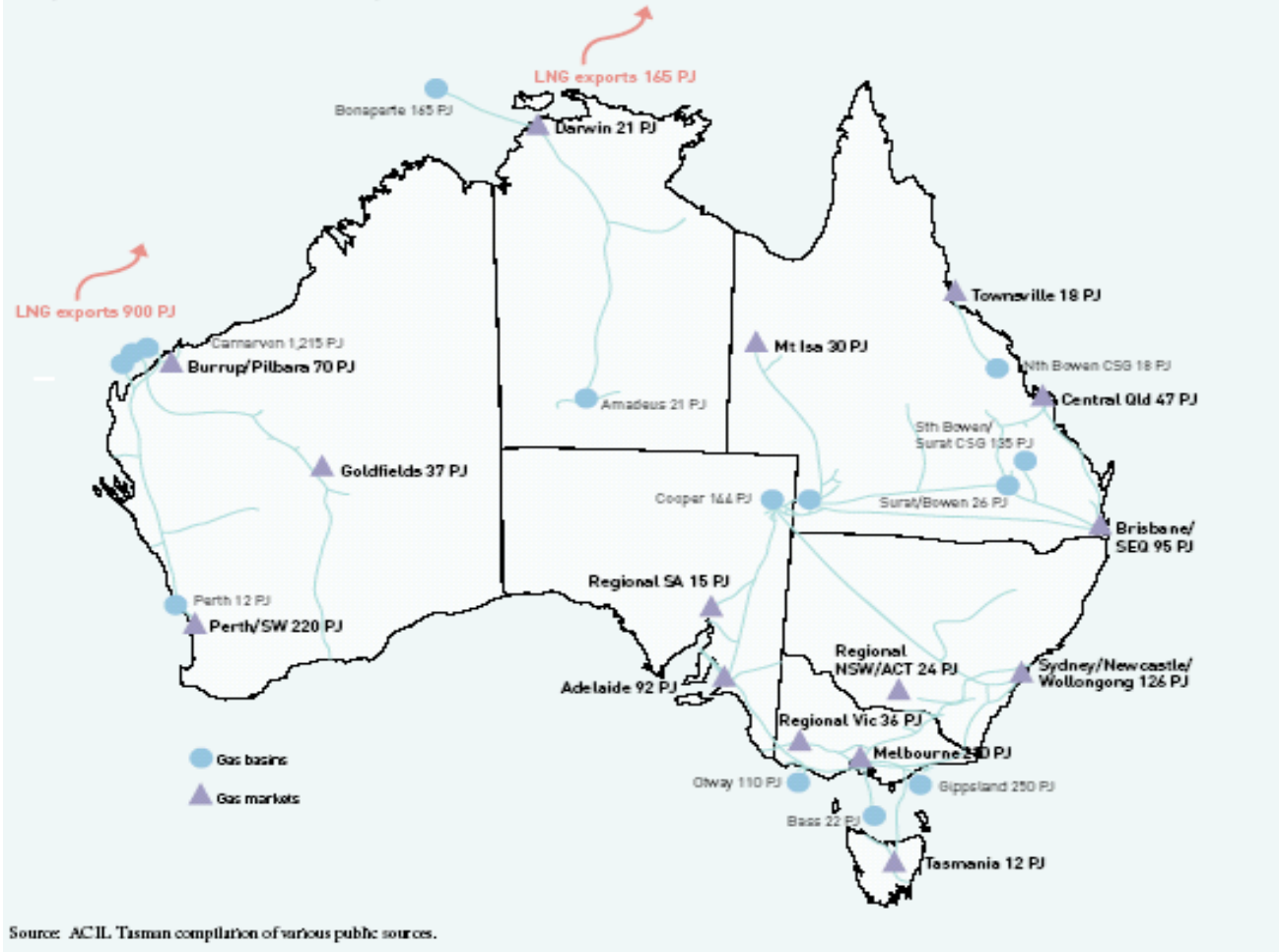
2P reserves: 9% - 1466PJ

3P reserves: 11% - 5836PJ (~1 train LNG,

2C reserves: 18% - 4692PJ

# Current NSW market size

Geographic distribution and size of gas markets in Australia

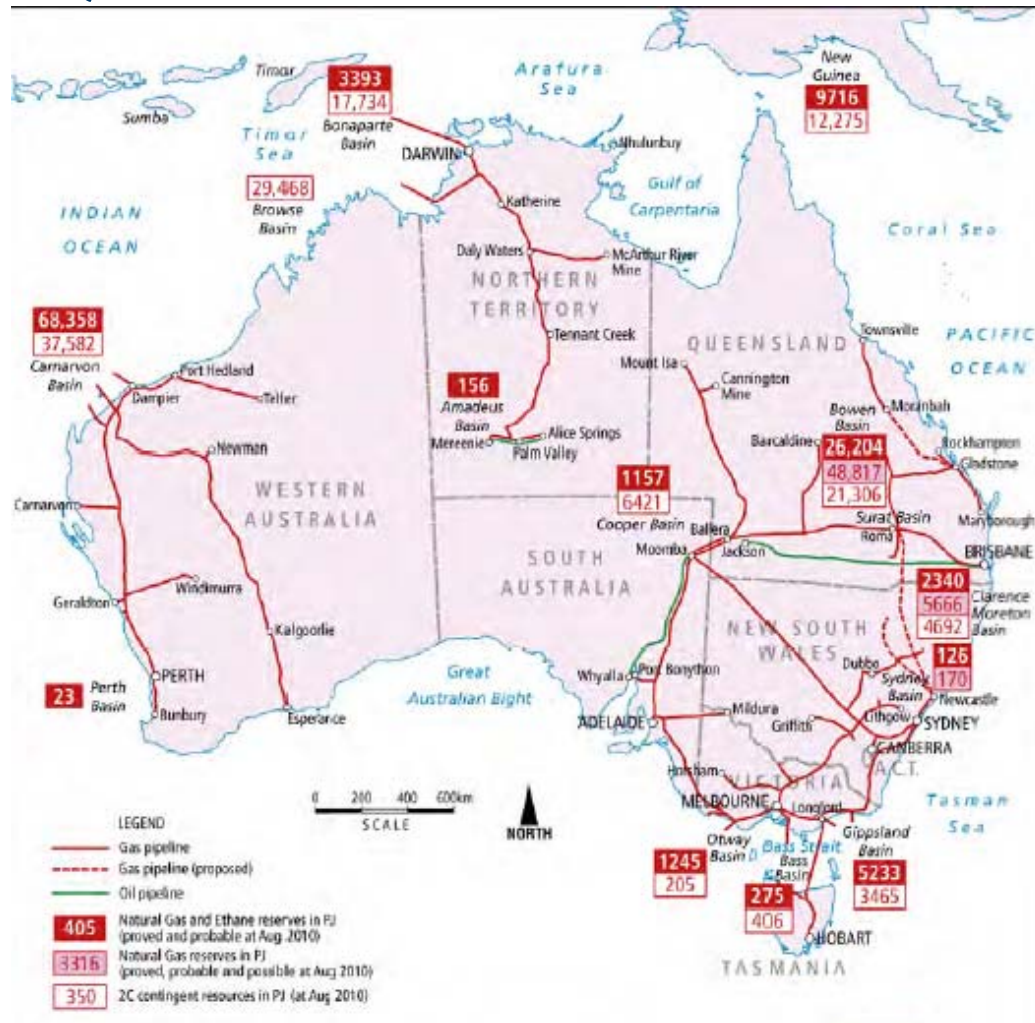


Source: ACIL Tasman compilation of various public sources.

- Production of 6PJ/a (Qld 200PJ/a)
- Market size ~150PJ/a (Qld now closer to 200PJ/a)

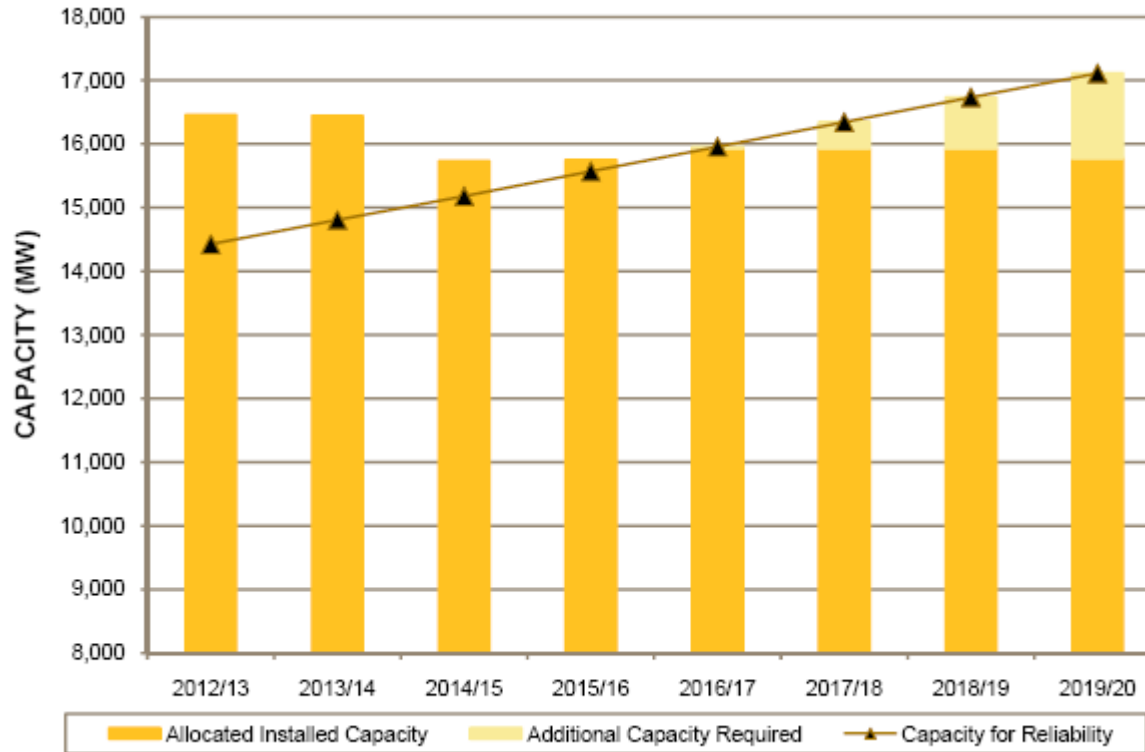
Source: ACIL Tasman in AER State of the Energy Market 2008

# NSW gas reserves – located in northern NSW ...close to Queensland



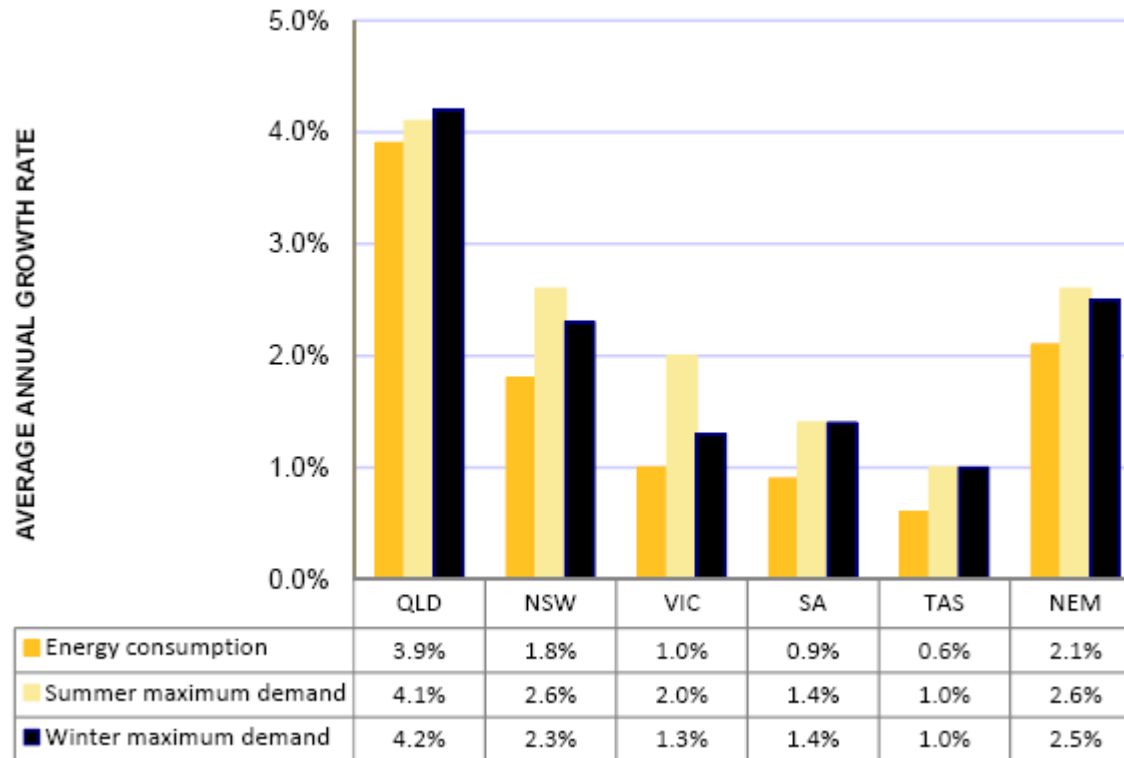
Source:  
EnergyQuest

# Drivers – gas fired generation ...but not until mid decade



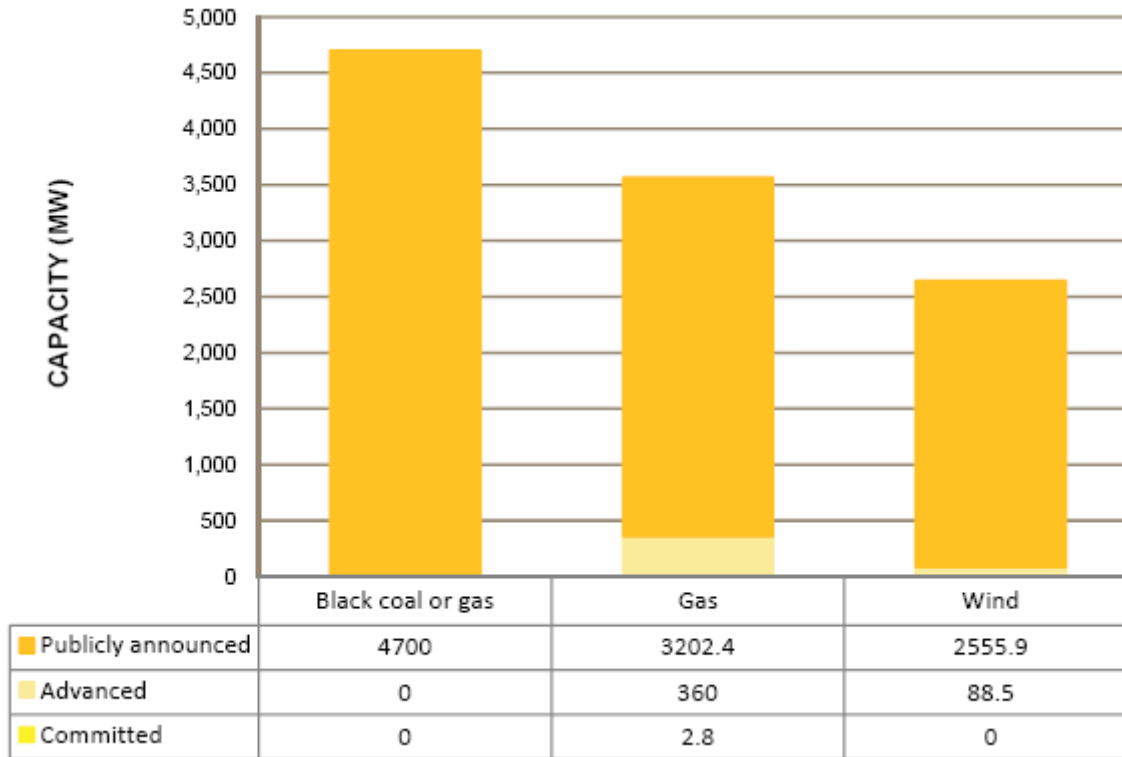
Source: AEMO Statement of Opportunity

# Summer peak demand growth driver



Source: AEMO Statement of Opportunity

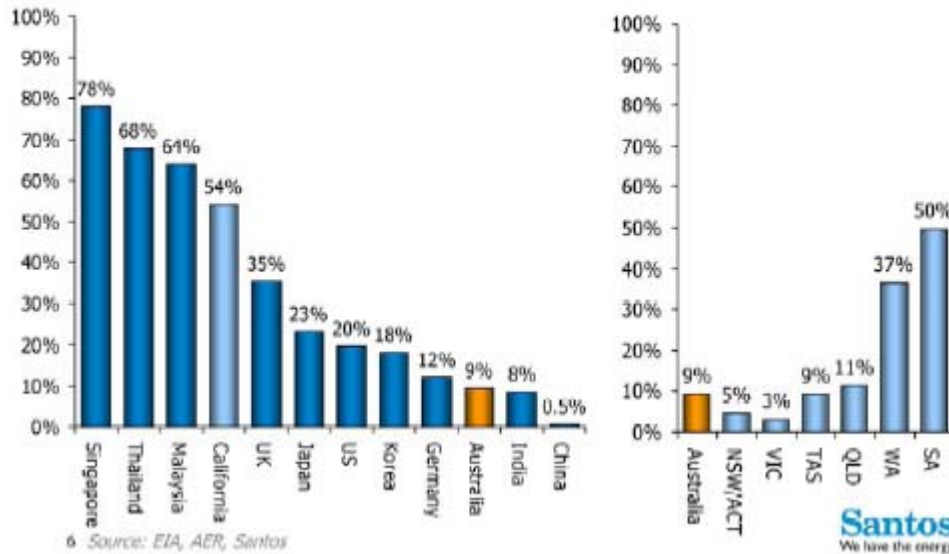
# Wind generation will drive gas fired generation



Source: AEMO Statement of Opportunity

# Scope to grow ...NSW 5%, SA 50%

## Gas Penetration as Percentage of Power Generated

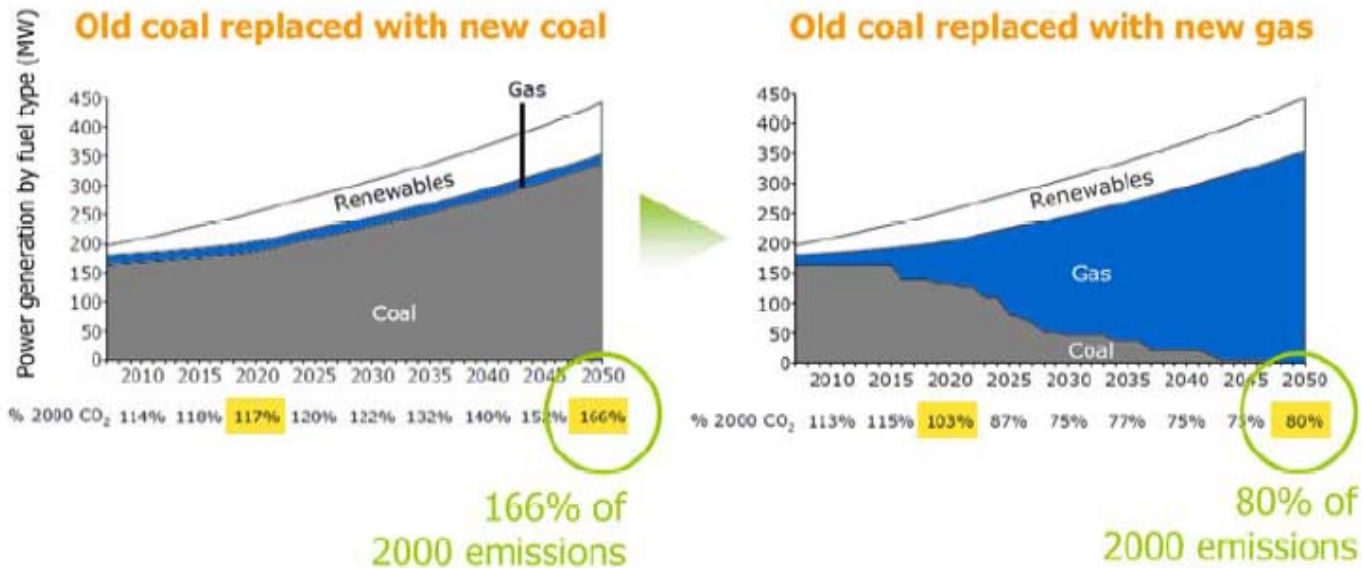


Source: Santos

# Santos push on gas fired generation

## What Natural Gas Can Deliver

Natural gas can underwrite a 20% reduction of carbon emissions by 2050 while still doubling the level of power generation.



5 Note: Assumes CCS is not viable; Assumes no plant closes during transitional assistance; Assumes 40 year plant life; EA only. Source: NEMMCO energy forecasts; ESAA EGA 2008; Bain analysis

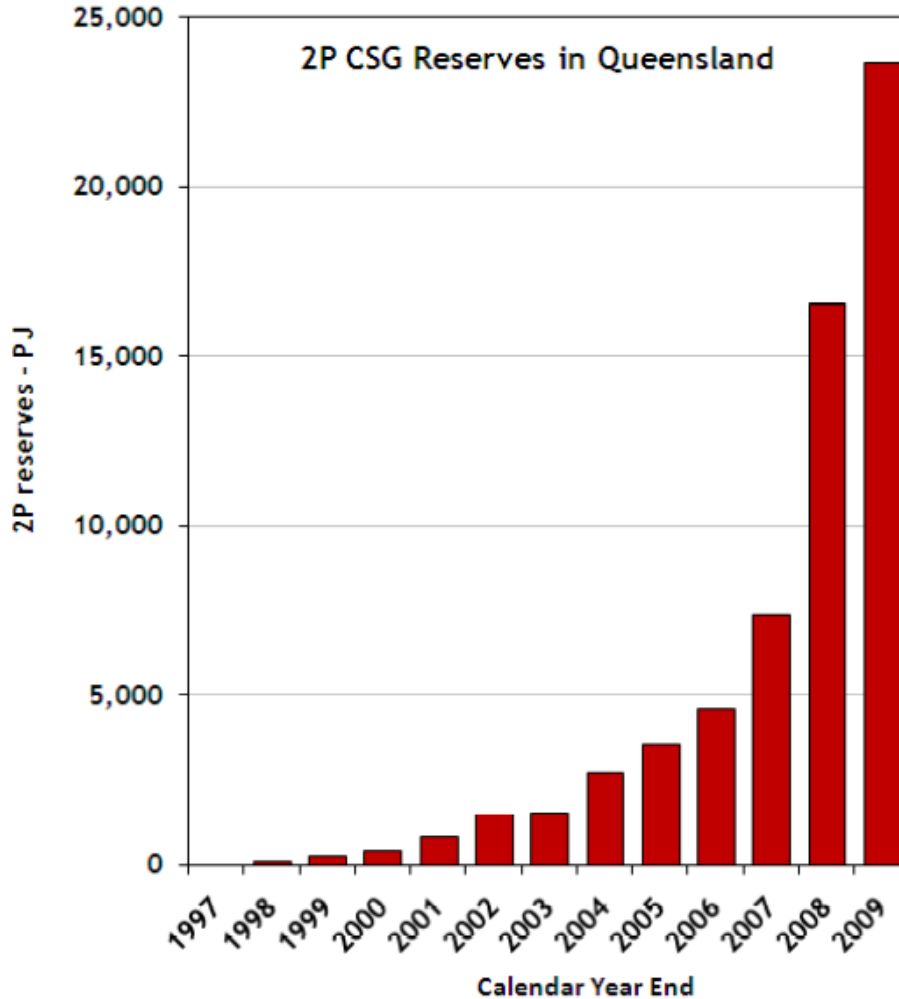
**Santos**  
We have the energy.

Source: Santos

# Why not like Queensland?

- **Policy:** 13% gas fired generation scheme
- Ease of consents
- **Demand:** Huge industrial demand growth (Gladstone)
- **Location, location, location** Well located CSG reserves
- Initial easy landowner relations
- **Quality:** Sweet spots (low cost, easy access)
- Industry built up confidence slowly from 1998-2006
- **Quantity:** vast reserves attracts the big boys

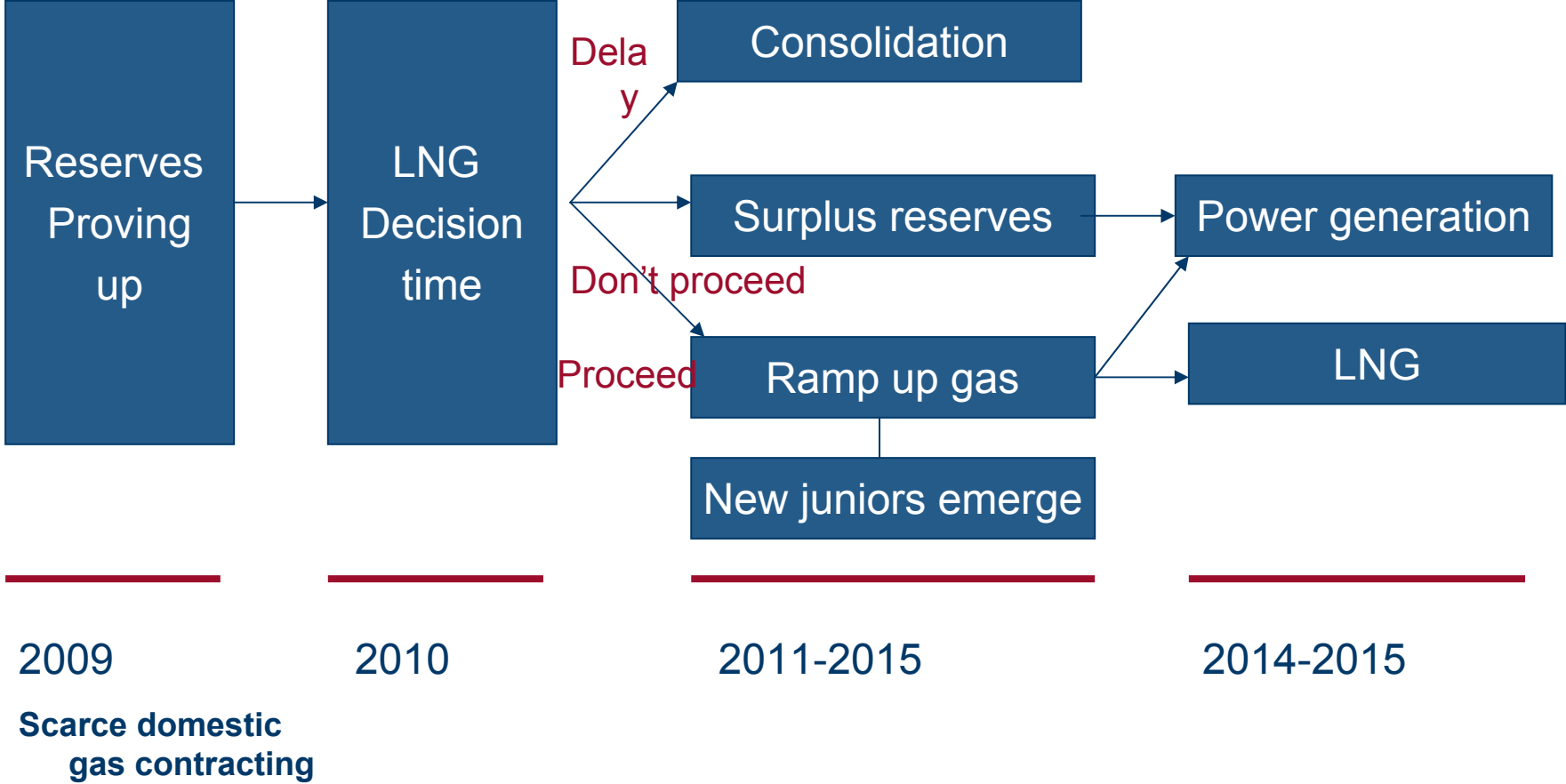
# Qld production growth



- NSW 2P reserves at 2004 Qld levels

Source: Santos

# Current drivers in Queensland



Source: Credit Suisse

# Summary

- Great potential in NSW gas
- Drivers will be the retailers and their need for generation
- Expect some impact from Queensland CSG to LNG projects (ie gas swaps)

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• **Infigen Energy (IFN.AX, A\$6.67, UNDERPERFORM [V], TP A\$7.76)**

• **Origin Energy (ORG.AX, A\$16.14, OUTPERFORM, TP A\$18.20)**

• **Royal Dutch Shell plc (RDSA.L, 1959.00 p, NEUTRAL, TP 2045.00 p, MARKET WEIGHT)** Disclosure Appendix

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