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The Rise of Unconventional Gas: An Australian Perspective

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Today's presentation

- Australian CSG-to-LNG projects
  - Current status
  - Technical, stakeholder and project structuring issues
- Shale gas in Australia
  - Current status
  - Where to next?

Mallesons

- Australia's premier law firm
- Lead advisor on some of Asia Pacific's most significant matters, including advising:
  - Chevron on the structuring and development of the $40+bn Gorgon LNG Project
  - pre-FID phase of the Wheatstone LNG Project
  - BG Group/QGC on the A$15bn Queensland Curtis Island CSG-to-LNG project
- On 1 March 2012, Mallesons Stephen Jaques and Chinese law firm King & Wood will combine to create King & Wood Mallesons, a new legal powerhouse centred in Asia

MARKET LEADING NUMBERS

9

Offices worldwide

12

Industry Awards - 2009/10

49

Practice Area Tier-One Rankings

178

Years of Advising Clients

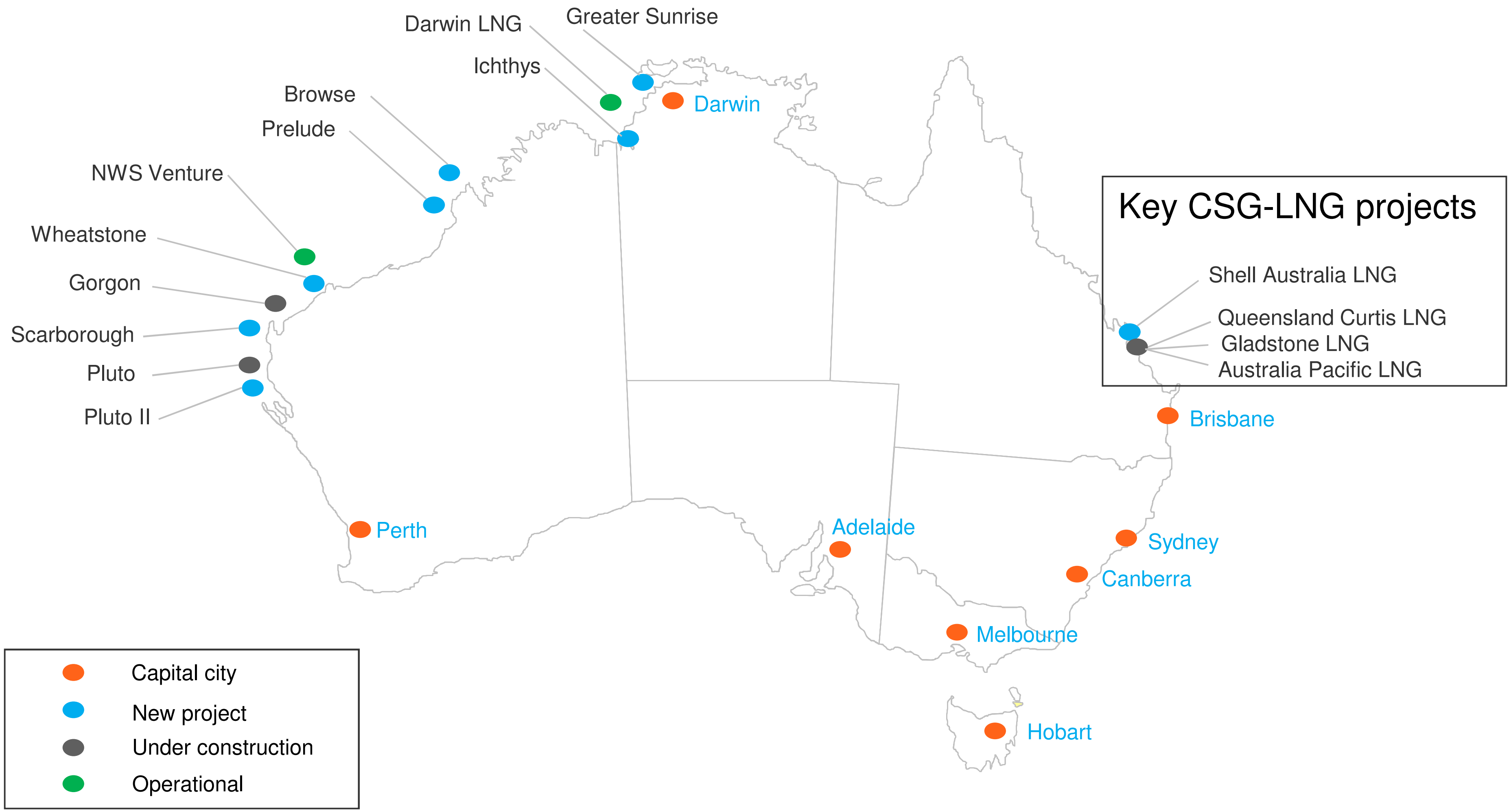
184

Partner Tier-One Rankings

1,800+

Lawyers and Support Staff

LNG projects: current status



CSG-LNG drivers

Continuing depletion of "conventional" gas fields in Australia

- Conventional onshore gas fields are generally mature

Steadily rising demand for natural gas (and LNG)

- Natural gas will increase to 25% of the global energy mix by 2035 (World Energy Outlook Report, IEA)
- Strong international demand for LNG and domestic demand from power generators

The world's first unconventional CSG-to-LNG projects based in Queensland

- Australia is set to be the leading LNG exporter in the world by 2020
- Up to 81% of China's LNG will be imported from Australia

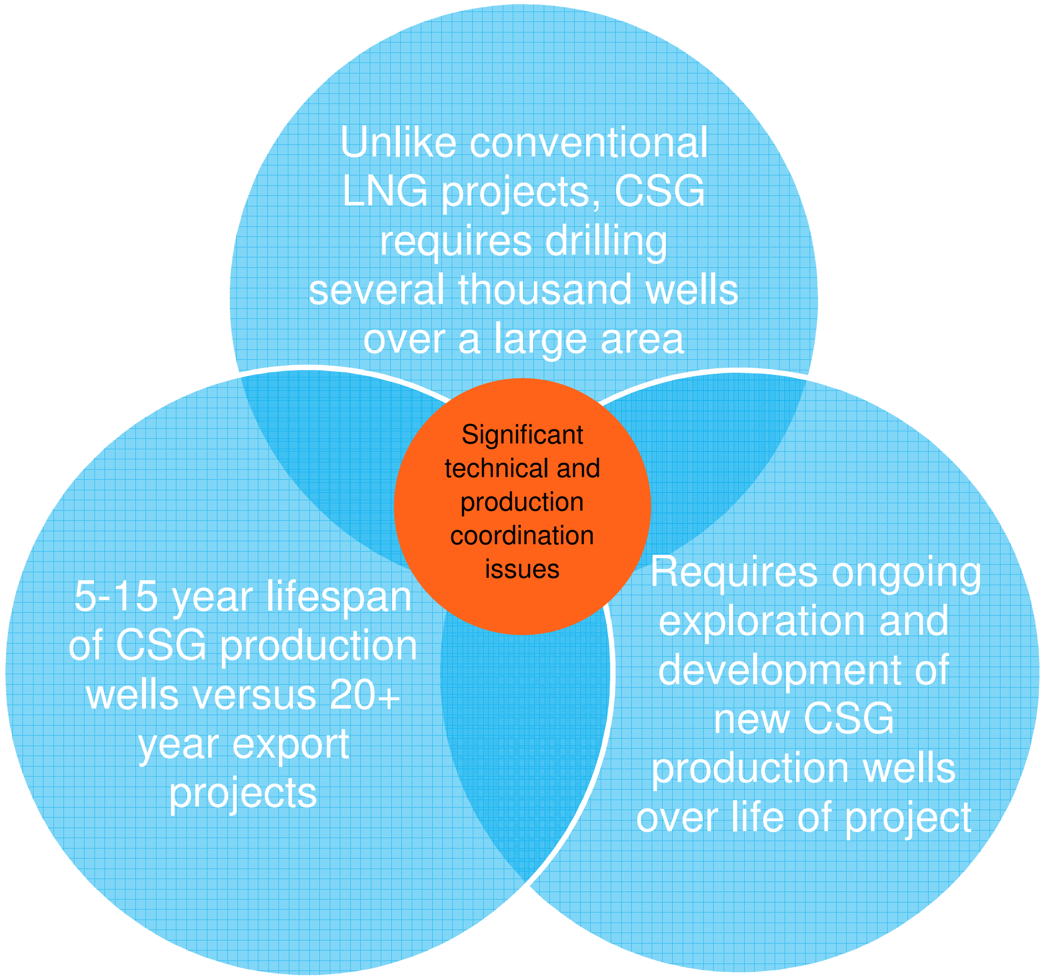
Queensland projects

Project Name	Participants	FID status ('Financial Investment Decision')	First cargoes
QCLNG	QGC (BG Group), CNOOC (10% in Train 1, 5% upstream) and Tokyo Gas (2.5% in Train 2, 1.25% upstream)	FID reached on 31 October 2010	Expected in 2014
Shell/Arrow LNG	Shell Energy (50%) PetroChina (50%)	FID expected in 2013	Expected in 2017

Queensland projects

Project Name	Participants	FID status ('Financial Investment Decision')	First cargoes
APLNG	Origin Energy (42.5%) ConocoPhillips (42.5%) Sinopec (15%)	FID on first train of the two train project reached on 28 July 2011	Expected in 2015
GLNG	Santos (30%) PETRONAS (27.5%) Total (27.5%) KOGAS (15%)	FID reached on 13 January 2011	Expected in 2015

CSG-to-LNG technical issues



CSG-to-LNG stakeholder issues

- Land access
- Water management
- Hydraulic fracturing (“fracking”)
- Domestic gas reservation and overlapping tenures
- Community / political concerns
- Regulatory issues – regulatory environment under continuing development

CSG-to-LNG project structuring issues

- Number of CSG specific legal, technical and commercial issues which have resulted in need to modify more conventional LNG project structures
- Unlike conventional gas projects, CSG to LNG based on reserves from multiple fields not necessarily owned by all participants
- Structures need to accommodate:
  - Upstream co-ordination of field/well development and gas supply, potentially from a number of separate joint ventures
  - Need for different participant composition across supply chain
  - Apportionment of economic value and corresponding risk allocation across supply chain
  - Need for multi-user plant arrangements

Shale gas in Australia: Current status

- Estimates for as much as 400 Tcf of recoverable shale gas (compared with 827 Tcf in the US)
- Commercially-viable extraction
  - Horizontal drilling and fracking
  - Current extraction costs up to 3 times higher than US due to labour shortages and lack of infrastructure and equipment
- Initial exploration in 2011
  - Beach Energy drilled test wells in South Australia's Cooper Basin - aim to commercialise by 2015
  - BG Group entered into a farm-in / joint venture with Drillsearch in South Australia's Cooper Basin
  - ConocoPhillips entered into a farm-in deal with New Standard Energy in Western Australia's Canning Basin

Where to next?

- Known conventional gas deposits represent 50 years of current demand
- Shale gas acreage in Australia appears undervalued relative to the US
- Cooper, Canning and Perth basins are likely to be the most attractive for shale gas
- Potential returns: shale gas industry contributed > $76 billion to US GDP in 2010
- Cleaner energy: gas power generation produces about half CO_2 emissions of coal