



# FLOWLINE

APPEA • THE VOICE OF AUSTRALIA'S OIL AND GAS INDUSTRY

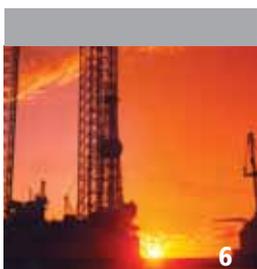
APRIL 2011 • ISSUE 30

APPEA  
2011  
TOMORROW'S  
ENERGY  
TODAY



AUSTRALIAN PETROLEUM PRODUCTION & EXPLORATION ASSOCIATION

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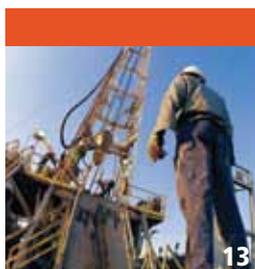
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The Australian Petroleum Production & Exploration Association (APPEA) is the peak national body representing Australia's upstream oil and gas industry. The association has more than 80 full members exploring for and/or producing oil and gas in Australia and more than 220 associate members that provide goods and services to the industry.

### Key contributors in this issue



#### Ross Dunn

DIRECTOR — QUEENSLAND CSG  
Based in Brisbane and Toowoomba, Ross is a long-term resident of the Darling Downs with an extensive background in agriculture and policy development.



#### Miranda Taylor

DIRECTOR — PEOPLE STRATEGIES  
Based in Perth but with a national focus, Miranda is responsible for advocacy, policy development and collaborative industry projects on labour, skills and safety issues.



#### Mark McCallum

DEPUTY CHIEF EXECUTIVE — POLICY & EXTERNAL RELATIONS  
Mark is responsible for managing industry policy positions. He has special responsibility for several key issues, including environment, safety and regulatory reform.

Please see the inside back cover for a full staff listing and contact details.

Cover image:  
The Northern Endeavour floating production, storage and offloading vessel.

PHOTO COURTESY WOODSIDE

from  
the chief  
executive



## APPEA 2011 — the push for smart policy starts here

**Belinda Robinson**  
Chief Executive

APPEA's 2011 Conference opens at a time when activity in Australian oil and gas has never been higher. As the Federal Resources and Energy Minister recently observed, "It is a particularly exciting time for Australia's gas industry. Within five years we expect exports exceeding 50 million tonnes per annum. The multi-billion dollar contracts we are seeing for Australia's gas resources are a clear demonstration of the confidence that our trading partners have in Australia as a reliable supplier".

**In just the past few months, tens of billions of dollars have been committed to world-leading Australian LNG projects and—quite remarkably—other final investment decisions can be expected in the months ahead. Several promising hydrocarbon discoveries have also been made to support existing and planned projects.**

It is in this context that the Australian Parliament will soon debate, and possibly enact, several pieces of legislation of great interest to Australia's oil and gas industry. Taxation reform, stricter environmental controls, and the establishment of a single National Regulator are all on the Australian Government's agenda. But most pressing is the design and delivery of a carbon-pricing mechanism, which the government intends to take effect from July 2012.

In assessing the draft policy design, APPEA will be examining the extent to which it encourages the expansion of both the domestic and export gas industries. If it fails this test, it is a failed design. As we have consistently said, to have any integrity, climate change policy design must deliver production and investment decisions that are consistent with there being an international price on carbon.

A poorly designed carbon tax could impose a cost on Australian LNG that is not shared by our LNG competitors or by competing fuel types. This would mean that less LNG is available to world markets and lead to a commensurate increase in coal use throughout Asia. Consequently, and perversely, global emissions would rise.

APPEA is calling for a policy response that goes beyond treating LNG as a trade-exposed, energy-intensive industry to one that loudly and unashamedly celebrates the magnificent opportunity our vast gas reserves present for Australia to make a substantial, practical and material difference in reducing global emissions.

If Australia's climate policy results in expanded gas use in Australia, a logical outcome would be for the same policy to also encourage, rather than impede, gas use throughout Asia.

Let us not lose sight of the fact that for every tonne of greenhouse gas emissions associated with the production and transport of Australian LNG, up to nine and a half tonnes could be avoided in customer countries when this LNG is substituted for coal in electricity generation.

In the weeks and months ahead, you can expect to hear a great deal from APPEA on this issue. As for the coming days, APPEA 2011 will demonstrate all that is great about our industry. I hope you enjoy it.

## Regulatory reform to underpin vital industry

Mark McCallum

**The Montara Commission of Inquiry has made a compelling case for a single integrated offshore regulatory authority.**

Its report highlighted regulatory disconnects and duplication relating to safety, integrity, environment and reservoir management.

The Commonwealth is now moving to address this by setting up two new regulatory bodies by 1 January 2012.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) will be a single integrated independent authority, responsible for safety, well integrity and environmental plans.

The National Offshore Petroleum Titles Administrator (NOPTA) will administer and regulate petroleum titles in Commonwealth waters. It will also cover state waters where state governments choose to delegate this role.

APPEA maintains that any new national body must have the competence and capacity to ensure the robust and professional oversight of offshore oil and gas. It must also deliver greater regulatory efficiency and remove duplication within and between the Commonwealth, the states and the Northern Territory. In addition, the regulator itself must be subject to appropriate accountability and governance arrangements.

The industry will also be seeking to ensure that the states' concerns are addressed and substantial and ongoing onshore regulatory issues are not neglected during the transition to the new regime. Regulatory reform must deliver the assurances the community needs that every industry proposal is overseen, verified and thoroughly addressed by the world's most efficient and effective regulatory system.

But the onus is not only on governments and regulators. The industry must also meet community expectations.

Environment and safety management are among the industry's highest priorities. High standards of performance are essential to maintaining community support and to retaining access to existing and new areas.

The offshore oil and gas industry is working to further enhance safety and environment management  
PHOTO COURTESY ORIGIN ENERGY



Good progress is being made. New initiatives driven by industry leaders are yielding a broad, whole-of-workforce focus on safety. To continue to grow, the industry must keep improving its safety and environmental performance, focusing particularly on process safety, including drilling operations and the integrity of ageing facilities. The industry is also developing a new collaborative strategy for securing a whole-of-industry commitment to personal safety and process safety.

Any new national body must have the competence and capacity to ensure the robust and professional oversight of offshore oil and gas.

## Coal seam gas: a Queensland success story

Ross Dunn

**A rather cynical ex-journalist friend of mine once told me that there are only three types of news stories: “The ‘you bastard’ story, the ‘poor bastard’ story, and the ‘gee whiz’ story.”**

Unfortunately for the Queensland coal seam gas sector, these rules of engagement have seen the industry generate enormous media interest in recent times; and too regularly with it being cast as the villain.

But it is not for us to shoot the messenger.

It’s true that Queensland’s coal seam gas (CSG) industry has grown dramatically throughout the past 15 years. From being something of a curiosity, the industry has grown to the point where it now supplies 90 per cent of Queensland’s domestic gas market.

But it today is also contributing substantially to local economies. It has some 1600 gas wells and more than 1390 land access agreements in place. It operates under a tight regulatory regime and is transparent about its operations and processes.

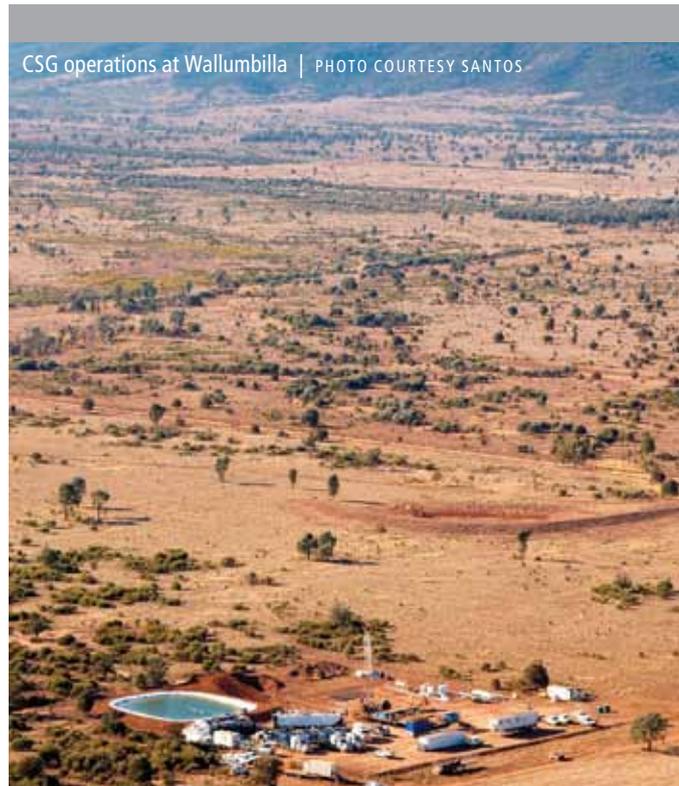
And very soon, it will be bringing much-needed energy to an increasingly energy hungry Asia–Pacific (and doing so with a much lower greenhouse gas impact than coal).

It is also bringing change to the rural landscape and this is giving rise to many challenges—concerns about lifestyle, fair treatment for landholders on water rights, land access and compensation with broader community concerns for the environment.

The CSG industry is comfortable with its social and environmental performance. It is also growing used to media scrutiny and being tested against the allegations and propaganda from those campaigning against it.

The industry wants to produce gas, to co-exist with landholders and be part of their local community—and have good environmental credentials.

CSG companies know this, the many good people with CSG industry jobs know this—but there is opposition ranging from the fair-minded but sceptical, who understandably want answers to reasonable questions, to those running an intensive, well-organised anti-CSG campaign, and they have judged CSG guilty before trial.



CSG operations at Wallumbilla | PHOTO COURTESY SANTOS

An all too often undiscerning mainstream and social network media simply interprets an anti-CSG sentiment and seems ever-ready to dine-out on a menu of fracking poisons, contaminated aquifers, and the generic David vs Goliath struggle.

CSG is clean, safe and natural but our challenge is this story doesn’t sell media copy. Conflict does and there are plenty of headlines to prove it.

CSG has a good story to tell and APPEA is very happy to tell it; greenhouse gas benefits, new employment and new investment; money, services and much needed economic diversity and sustainability to rural Queensland communities. CSG is indeed a game-changer for country Queensland.

As the industry gears up for LNG it is germane to our success that we never take our coexistence with agriculture, our acceptance in the community or our environmental credentials for granted. CSG does have a good story to tell—but everybody is watching us.

## Carbon policy must tackle hard questions

Damian Dwyer

**2011 has emerged as the key decision-making year for Australia's climate change policy, but it is not yet clear what shape a carbon price framework will take.**

Unfortunately, it is possible that carbon policy could actually develop in a way that harms the Australian liquefied natural gas (LNG) industry, which would perversely hinder the fight to reduce global emissions.

On 24 February, the Multi-Party Climate Change Committee (MPCCC) released its framework for implementing a carbon price in Australia.

APPEA continues to support a national climate change policy that delivers abatement at least cost and facilitates investment decisions consistent with there being an international price on carbon.

The MPCCC's announcement marks the start of a process that may achieve this objective, but APPEA is concerned that some key issues have not been addressed. If the MPCCC's July 2012 timeline is to be met, many difficult questions must be answered quickly.

Several key issues, including the treatment of trade-exposed industries, were not included in the announcement.

In developing a carbon price, policymakers must recognise that gas-fired power stations produce up to 70 per cent fewer greenhouse gas emissions than existing coal-burning plants.

Developing Australia's gas resources for export and domestic use is the most significant contribution Australia can make in addressing the global greenhouse challenge.

A carbon price must be designed in a way that encourages, rather than impedes, development of Australia's enormous gas resources.

A global carbon price would ensure that LNG exports have a strong future. But Australia's LNG competitors — countries such as Qatar — face no carbon price on their LNG exports. Nor are they likely to face a carbon price in the foreseeable future.

Above: The Darwin LNG plant. A carbon price framework must not undermine cleaner energy exports  
PHOTO COURTESY CONOCOPHILLIPS



### The MPCCC framework

- A proposed 1 July 2012 start date.
- A fixed price emissions trading scheme for the first three to five years before transitioning to a flexible price emissions trading scheme.
- The mechanism would cover all relevant greenhouse gases in the stationary energy sector, transport sector and industrial processes sector, including fugitive emissions and emissions from non-legacy waste. Agricultural emissions will be excluded.
- During the fixed price phase, liable parties cannot use international offsets. But in the flexible price phase, international emissions offsets meeting appropriate criteria can be used.
- Further consideration is to be given to reviewing existing Commonwealth, state and territory policies so that they complement the mechanism.

Policymakers must recognise that gas-fired power stations produce up to 70 per cent fewer greenhouse gas emissions than existing coal-burning plants.

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## Skilled policy a boost for the nation

Miranda Taylor

**Australian Government skills schemes launched last month mark a new era of partnership between industry and government, and will complement existing oil and gas industry training programs.**

Australia's oil and gas industry is already investing heavily in significant training opportunities directly and indirectly associated with the design, construction and operation of multi-billion dollar liquefied natural gas projects. But having government and industry collaborate in skills development will increase opportunities for Australian workers and enhance the nation's prosperity.

Launching the programs, Minister for Skills, Jobs and Workplace Relations, Chris Evans said the Australian Government had accepted all 31 recommendations of the *Resourcing the Future* report, which provided a framework for lifting the number of skilled workers available to the resources sector. The programs launched included the \$200 million Critical Skills Fund, the Adult Apprenticeship Project and the Gladstone Workforce Skilling Strategy.

APPEA is pleased the Australian Government has recognised the different labour and skills required in the construction and operating phases of large resources projects.

The Critical Skills Fund will underwrite government co-funding of training projects for skills in critical demand, both in the construction and production lifecycle of projects. It is expected to play an important role in building the skills base needed for LNG projects' highly technical production

phase. The industry will particularly be looking at schemes to maximise development of LNG skills through the cutting-edge training facility provided by the Australian Centre for Energy and Process Training to deliver essential skills across Australia.

The Adult Apprenticeship Project Program and the Gladstone Workforce Skilling Strategy will help in providing workers for the projects' construction phases.

The Adult Apprenticeship Project will enable experienced workers to achieve recognition of their existing skills and complete all the competencies needed to acquire a full trade qualification in just 18 months. The Gladstone Workforce Skilling Strategy—funded by the Australian and Queensland governments—will train more than 200 people for jobs associated with building Queensland LNG plants. The new skills programs provide a strategic approach to addressing the resources sector's immediate and long-term skills needs.

Australia has about a dozen large LNG projects under construction, or at various stages of planning. These projects will increase the country's LNG production capacity by more than four-fold and roughly double Australia's levels of engineering and construction investment. It makes sense for industry and government to cooperate in training the people needed to make these projects viable. APPEA looks forward to working with the Australian Government to build a stronger and more productive resources sector.

Construction at the Gorgon project  
PHOTO COURTESY  
CHEVRON



## Free the market and unleash gas

Stedman Ellis

**The Western Australian Government's Strategic Energy Initiative: Energy 2031 directions paper indicates a competitive energy market would facilitate gas production that could more than meet anticipated domestic demand over the next two decades.**

Released last month, the Strategic Energy Initiative (SEI) paper is aimed at ensuring WA has secure, reliable, competitive and cleaner energy.

WA Energy Minister Peter Collier says the SEI will establish a 20-year vision for the state's energy sector, providing industry and the community with clarity about the energy sector's direction and its context for decision-making.

"It is important we put in place the policy, regulatory and incentive mechanisms to ensure WA's energy market will be dynamic, competitive and efficient," Mr Collier said. "This will ensure the state is an appealing destination for investment and innovation and an attractive place to live and do business."

APPEA congratulates the government for its consultative approach in developing the SEI paper and for the generally positive direction the document sets.

The paper indicates that natural gas can provide West Australians with secure, reliable, competitive and clean energy, as well as being a significant and expanding contributor to export earnings and economic growth in the state over the 20-year period set for this framework.



WA's gas market is driving further exploration  
PHOTO COURTESY APACHE ENERGY



Several of the Strategic Energy Initiative paper's proposals would enhance energy security and diversification. These include:

- improvements to pre-competitive geoscience
- innovations in licensing mechanisms to encourage exploration in frontier regions
- improvements to land access arrangements
- incentives for unconventional gas exploration and development.

The North West Shelf Venture's Karratha gas plant.

But gas producers are concerned that the DomGas Alliance of gas users is still arguing for a tightening of the state's domestic gas reservation policy.

Their case is based on a perception that WA faces a serious shortage of gas supply for new developments.

Yet the SEI paper shows the impact of higher gas prices in WA has triggered the biggest domestic gas development effort in almost three decades. This will greatly increase competition and diversity in the market.

Further interfering with the gas market would be a bad idea when the evidence indicates that market forces are driving a rapid expansion in the state's gas capacity.

Gas reservation by regulation would actually have the perverse effect of discouraging the new market entrants and hindering the supply diversity that WA is seeking. Rather, the challenge is to keep finding and developing gas fields offshore and onshore to feed into new production facilities.

APPEA has long argued that the gas market should be as free as possible. WA's higher prices are restoring equilibrium. They have triggered investment in new supply.

The state's production capacity is expected to increase by more than 20 per cent towards the end of this year.

In the next five years alone, WA domestic gas supply will increase by 50 per cent (to 1500 TJ/d) or more if new supply from gas fields matches the installed capacity of production facilities. Other projects in the pipeline could, given sufficient long-term demand, double local capacity within ten years.

In addition, petroleum companies are now exploring for new gas supplies onshore and offshore, as well as appraising the ability of new production technologies to realise the commercial potential of known tight gas and shale gas fields. Exploration is happening or being planned in WA's mature basins, as well as frontier regions such as the Canning and Mentelle basins.

The SEI directions paper indicates projected gas production capacity over this period will be more than enough to meet the forecast growth in demand.

There is no need to panic. The future looks good for the state's gas supply, providing the market is allowed to operate efficiently.

## Less complexity would deliver more relief

Noel Mullen

**A report into the operation of the Enhanced Project By-law Scheme (EPBS) confirms the key role the scheme plays as well as its importance to the oil and gas industry.**

The EPBS gives project developers relief from tariff duties when importing eligible capital equipment for a project. The regime has been operating for a number of years, but has recently become more complex and uncertain for project claimants.

The Australian Government Minister for Innovation, Industry, Science and Research, Kim Carr, contracted consulting firm Access Economics to review the regime. He asked it to focus on administration, compliance, effectiveness and potential reform options.

Access provided its final report to the Australian Government in December 2010 and the Minister released an executive summary in late February 2011.

The EPBS has some key advantages on other duty relief systems as it also focuses on promoting Australian industry participation. The scheme has a strong relationship component, encouraging links between government, project proponents and local industry. It has the potential to improve information flows and build constructive and positive engagement between all parties. However, Access notes that if the scheme is too administratively complex and costly, and outcomes for users are highly uncertain, the EPBS can erode these relationships and risks becoming an irritant.

The consultancy found the system's fundamental design is good. But Access said administration of the EPBS should be adjusted to encourage eligible proponents into the scheme and to reduce overall complexity.

"To an extent, the complexity of the scheme encourages proponents' widespread use of consultants to manage their applications," the report said.

"The involvement of consultants appears to be a major 'flash point' in the administration of the scheme.

"While certainly not a threshold commercial factor, the scheme can have a more important impact on project economics in the oil and gas sectors. Project returns tend



Beach Energy drilling in the Cooper Basin. The EPBS plays an important role in oil and gas project economics.

to be lower than in many other resource sectors and the projects themselves have a larger imported technology component for which tariff concessions are usually warranted."

Mr Carr said the report had confirmed the effectiveness and appropriateness of the EPBS.

Industry welcomes this statement as it indicates the government understands the important role the scheme plays.

APPEA will be working with the Australian Government to develop further improvements to the administration of the regime.

A government inquiry is examining the security of valuable offshore assets such as this platform at Bayu Undan  
PHOTO COURTESY CONOCOPHILLIPS



## SECURING OFFSHORE ASSETS

### **APPEA and member companies are assisting an inquiry assessing existing safeguards against attacks on offshore infrastructure.**

The Australian Government is conducting the Inquiry into Offshore Oil and Gas Resources Sector Security. The review will be undertaken as an independent, constructive, 'no blame' assessment of the prevailing security environment and identify areas of potential vulnerability and response capabilities.

APPEA is pleased that the Australian Government recognises the oil and gas industry's frontline role in offshore waters. The industry hopes the inquiry will lead to more coordination of activities within and between governments. But, there are concerns that governments could place an unrealistic regulatory and fiscal burden on oil and gas companies.

- Oil and gas fields and associated infrastructure are national assets developed under license from national and state governments.
- As the caretakers of Australia's offshore jurisdiction and resources, governments have the scope and expertise to safeguard such assets in the national interest.
- A draft report is due to the Minister for Infrastructure and Transport by December.

## Let's get the premier state cooking with gas

Matthew Paull

**Plenty of attention is being paid to Queensland's booming coal seam gas (CSG) industry, but it is less widely known that NSW can also become a major gas producer.**

NSW has been producing coal for more than 200 years and uses coal to produce 89 per cent of its electricity. But as a gas producer, NSW is far behind all other mainland states, with about 95 per cent of its gas currently imported.

Yet the state's potential CSG reserves may rival Queensland's. With many companies actively exploring for CSG in NSW, the state's gas industry could grow enormously—much as Queensland's has—delivering enormous economic and environmental benefits and boosting regional prosperity.

Queensland's experience shows the CSG industry can deliver billions of dollars in investment, exports and government revenue, while creating thousands of jobs and reinvigorating regional areas and towns.

It can also deliver abundant and cleaner energy. CSG produces up to 70 per cent fewer emissions than existing coal-fired power generation.

In addition, because gas-fired electricity can be turned on and off to meet fluctuations in demand, it is the perfect

complement to intermittent sources of renewable energy such as solar and wind.

Natural gas is the only energy source that provides a genuine large-scale and affordable alternative to coal-fired power. But if NSW CSG is to deliver these benefits, government and industry must address community concerns and tackle misunderstandings about the industry.

Doing this will enable the development of a vibrant new NSW gas industry. But failing to do so will see NSW remain dependent on coal—both economically and in terms of energy supply—at a time when the rest of the world seeks to reduce emissions.

Without new sources of growth and economic diversity, NSW risks being left behind the boom states of Western Australia and Queensland. And without the extra government revenue provided by a growing resources sector, NSW will find it that much more difficult to pay for the hospitals, schools, and roads needed for its growing population.

Once the dust from the recent NSW election settles, APPEA looks forward to working with the NSW Government and providing input into developing a viable regulatory framework for the state's promising CSG industry.

Operations at Santos's Fairview project: NSW has the potential to emulate Queensland's coal seam gas success





Resources and Energy Minister Martin Ferguson addresses APPEA 2010

## A robust exchange of ideas

**The APPEA Conference facilitates the exchange of ideas and information in a fast-moving industry and conveys APPEA's industry advocacy messages and news about company projects to policymakers and media.**

These two roles are especially important this year. Australia is preparing for a rapid expansion of its domestic and export gas industries, but is also facing serious challenges and potential pitfalls. Industry, policymakers and the media must meet and exchange information and ideas to improve their understanding of these issues.

Leading politicians — including Federal Resources and Energy Minister Martin Ferguson, Federal Energy and Resources Shadow Minister Ian Macfarlane, and Western Australian Premier Colin Barnett — will be addressing APPEA 2011.

Politicians, their staff and senior bureaucrats will also be listening to conference presentations, meeting with APPEA staff and industry executives, and attending social functions.

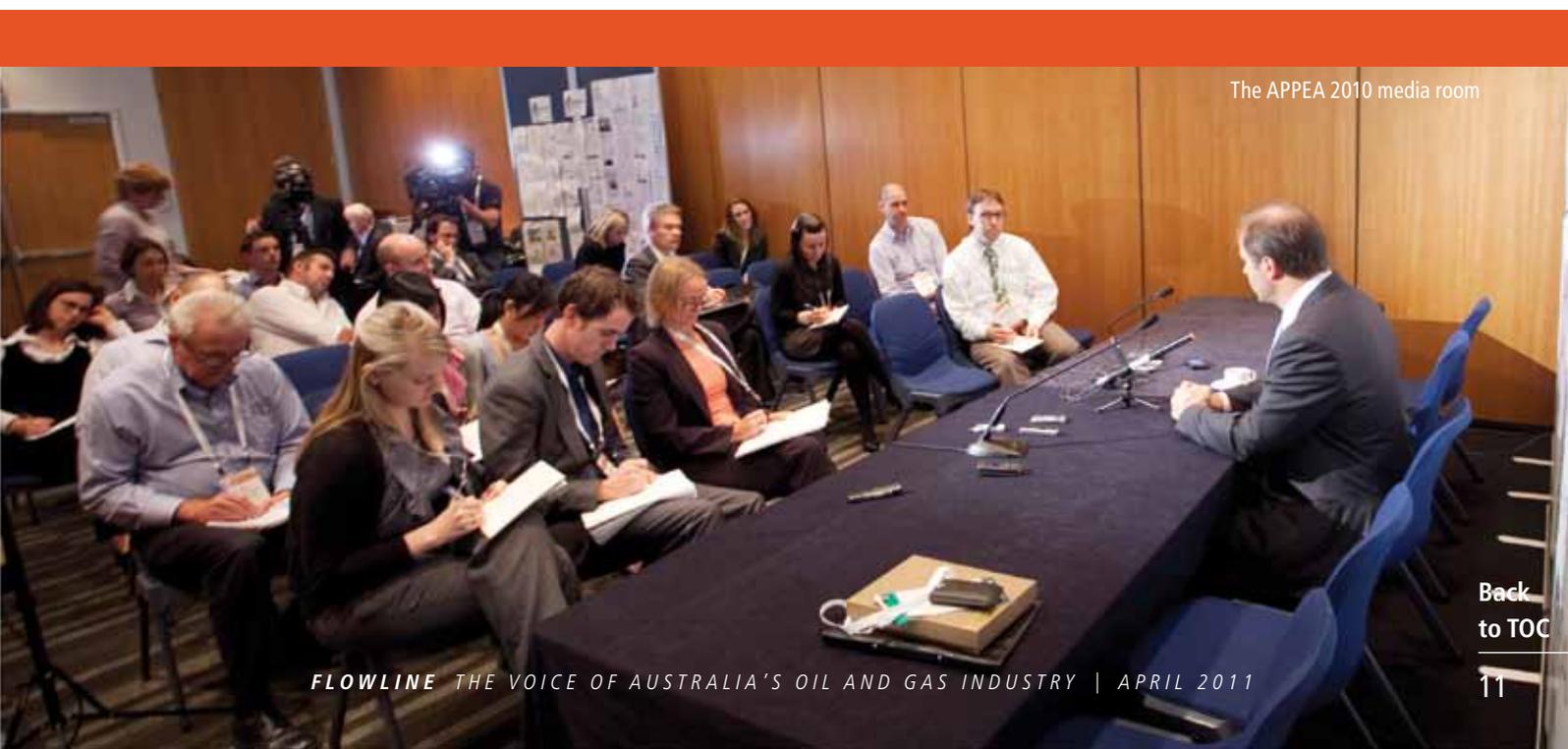
The exchange of ideas is important in developing industry's policy positions.

In addition, about 40 journalists will be covering the event, spreading industry news and views to opinion makers and the wider public.

The exchange of ideas — both within industry and between industry and policymakers — is important in developing the industry's policy positions.

The conference also spreads knowledge and ideas at a technical and operational level.

APPEA 2011 will include more than 100 presentations and addresses in its plenary and concurrent sessions.



The APPEA 2010 media room

## Norwest Energy | FULL MEMBER

Norwest sets its compass for success

**Perth-headquartered junior explorer Norwest Energy has begun a busy 2011 northern Perth Basin exploration program, targeting oil, conventional gas and shale gas in two permits that it operates.**

The company's first well for 2011, Red Hill South-1 was spudded on 28 February in the TP/15 permit. At the time of going to press, it had not yet reached total depth.

TP/15 lies immediately off the Western Australian coast. The permit immediately to the west hosts the Cliff Head oil field; permits to the east and south hold the Jingemia, Hovea and Eremia oil fields and the Beharra Springs gas field.

Targeting a 1580 metre-deep reservoir that lies about 100 metres offshore, Red Hill South-1 is being drilled from an onshore site 200 metres from the shoreline, about three kilometres south of Port Denison.

Norwest Chief Executive Peter Munachen says Red Hill South is estimated to have potential recoverable oil of up to nine million barrels (MMbbl). The Xanadu prospect, elsewhere in TP/15, is estimated to contain up to 27MMbbl of recoverable oil and is a possible future drilling target.

Norwest holds TP/15 in a 50:50 partnership with farm-in partner Bharat PetroResources Ltd (BPRL), a wholly-owned subsidiary of Indian major Bharat Petroleum Corporation.

BPRL has also joined Norwest in the nearby onshore permit, EP413, which Norwest says is prospective for oil, conventional gas and shale gas. For now, the exploration emphasis in EP413 is on shale gas.

The initial focus will be on the Arrowsmith prospect, which flowed gas when drilled in the 1960s. Norwest, BPRL and AWE aim to drill the first well at Arrowsmith in April or May 2011 and acquire core data from the area's three shale intervals.

"Work by AWE has indicated that the middle interval of the Carynginia Shale throughout the basin could

The drill rig at Red Hill South



Red Hill South is estimated to have potential recoverable oil of up to 9 million barrels.

hold between 13 trillion and 20 trillion cubic feet of gas," Mr Munachen said.

"In the US, recovery rates of 20 per cent or more are the norm in shale gas projects, implying a recoverable resource of between 2.6Tcf and 4Tcf or even higher."

WA gas prices are high and this potentially substantial shale gas province is crossed by two major gas pipelines. It also lies between the Perth and South West WA gas markets to the south and the growing Mid West WA mining province and the Oakajee port and rail hub to the north.

## INDEPENDENTS' DAY

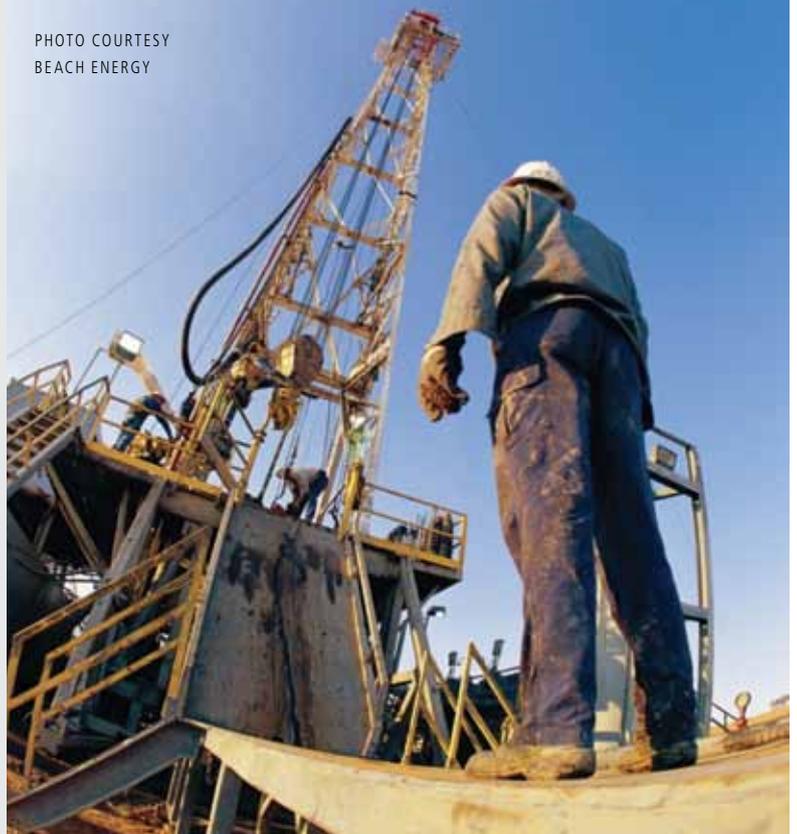
**A major new industry award will recognise success and innovation in small- and mid-sized oil and gas companies' operations. Criteria include:**

- successful exploration or development programs
- using new technologies or interpretations in exploration or appraisal to advance geological knowledge
- undertaking successful work programs that overcome major challenges in geology, geophysics, land access or environmental management
- partnering or leading successful community programs
- innovative funding or partnerships.

The APPEA Independents Award will only be given in years where there are eligible candidates. APPEA plans to present the award later this year, if an appropriate candidate is identified.

Applications may be made in writing to the APPEA Secretariat. Please contact Ranga Parimala for further information.

PHOTO COURTESY  
BEACH ENERGY



## AUSTRALIAN EXPLORATION ACTIVITY: NOVEMBER 2010–JANUARY 2011



### Pitney Bowes Business Insight Australian Exploration Activity Map

For a map of Australia showing the location and status of recently drilled petroleum wells, current petroleum licence coverage, including available acreage, [click here](#).

Map provided courtesy of  
Pitney Bowes Business Insight  
Tel 02 9437 6255  
E-mail [pbbi.australia@pb.com](mailto:pbbi.australia@pb.com)  
Website [www.pbinsight.com.au](http://www.pbinsight.com.au)



## Keeping safety front and centre

**APPEA's 2011 National Safety Conference—themed *Safety throughout the lifecycle*—will be held at the Burswood Convention Centre in Perth 9–10 August.**

APPEA and the industry are working to keep safety at the forefront of workers' and managers' minds. For the industry to keep improving its safety performance, safety must be fully integrated into all phases of projects and operations—including design, development, construction, installation, commissioning, operation and decommissioning.

The conference program has not yet been finalised, but presentations will focus on:

- major accident events—identification, mitigation and monitoring
- management of fatigue
- quality incident investigation skills
- asset integrity
- competency and accountability
- safety culture
- 'line of sight' leadership
- process safety management
- the integrated system—using warning signals up and down the line
- monitoring versus auditing.

In 2011 the APPEA National Safety Conference will feature:

- Dr Patrick Hudson from Delft University of Technology in the Netherlands
- Dr Martin Moore-Ede, Chief Executive of international consultancy Circadian Technologies, a leading expert on managing the risks of human fatigue in high-reliability organisations that operate around the clock
- an optional half-day incident investigation skills workshop led by expert Edward Perz
- expanded exhibition space
- three concurrent streams tailored to the needs of various industry sectors.

■ Another highlight will be presentations from the 2011 APPEA Safety Innovation Awards finalists.

■ The conference will be preceded by the HSR Forum on Monday 8 August.

■ For more information please visit [www.appeasafetyconference.com.au](http://www.appeasafetyconference.com.au)

## Dates for your diary

DATE	EVENT	LOCATION	MORE INFORMATION/TO REGISTER
<b>2011</b> June	<b>APPEA Water Forum</b>	Brisbane	T 07 3211 8300
9–10 August	<b>APPEA National Oil and Gas Safety Conference</b>	Perth	<a href="http://www.appeasafetyconference.com.au">www.appeasafetyconference.com.au</a> (following the 8 August HSR Forum)
7–9 November	<b>APPEA National Environment Conference</b>	Coolum, QLD	<a href="http://www.appeaenvironmentconference.com.au">www.appeaenvironmentconference.com.au</a>
10–11 November	<b>APPEA Taxation and Finance Conference</b>	Coolum, QLD	<a href="http://www.appeataxconference.com.au">www.appeataxconference.com.au</a> (APPEA members only event)
Various dates	<b>2011 Introduction to Petroleum seminar series</b>	Various	For specific dates and times see <a href="http://www.appea.com.au/events/introduction-to-petroleum.html">www.appea.com.au/events/introduction-to-petroleum.html</a>
<b>2012</b> 13–16 May	<b>2012 APPEA Conference and Exhibition</b>	Adelaide	<a href="http://www.appeaconference.com.au">www.appeaconference.com.au</a>

# Coolum conference double-header

**Hundreds of oil and gas professionals and industry experts will converge on Coolum later this year when APPEA holds two major conferences in the picturesque south-east Queensland town.**

The APPEA National Environment Conference will be held at the Hyatt Coolum from 7–9 November and will be followed by the APPEA Taxation and Finance Conference on 10–11 November.

## Environment conference

APPEA's National Environment Conference has been drawing greater interest and its attendance has been steadily increasing. The event has been held every two years, but in 2011 it will be held for the second year running. The big issues this year are expected to include:

- environmental law updates—both new legislation and case law precedents
- new trends in exploration and development and their environmental implications
- serious incident response planning
- coal seam gas environmental impact assessment, planning, and implications

- low-cost emission reduction solutions
- innovative uses of environmental offsets
- water management solutions for onshore and offshore operations
- achieving successful community engagement outcomes.

This conference is a great opportunity to share information; to find out trends, issues and innovations in industry environmental management; and to assess the implications of new government policies. It is also ideal for networking with industry professionals, government representatives and non-government organisations.

## Taxation and finance conference

The APPEA Taxation and Finance Conference is a key biennial forum that addresses commercial issues facing the oil and gas industry. It typically covers taxation, accounting, financial and legal-related themes.

These are always big issues, but with carbon tax and an expansion of the petroleum resource rent tax on the Australian Government's agenda, this event is especially timely.

Attendance is limited to APPEA member companies, government representatives and invited speakers.



The 2010 APPEA Environment Conference at the Hyatt Coolum

- APPEA National Environment Conference, Hyatt Coolum, 7–9 November [www.appeaenvironmentconference.com.au](http://www.appeaenvironmentconference.com.au)
- APPEA Taxation and Finance Conference, Hyatt Coolum, 10–11 November [www.appeataxconference.com.au](http://www.appeataxconference.com.au)

## LNG boom won't happen automatically

### **Australia's rapidly growing liquefied natural gas industry is facing big opportunities but also confronting major hurdles.**

Two LNG projects are already operating successfully and more than \$200 billion worth of other schemes are at various stages of planning and development.

International LNG demand is expected to grow strongly over the next two decades, according to McKinsey & Company Energy Director Matthew Rogers, a plenary speaker at APPEA 2011.

"Demand from China, India and emerging importers will be growing at 8–9 per cent a year," Mr Rogers said. "Australia's gas resources, geography and political stability make it well placed to meet much of this demand."

But Australia's success in LNG exports is no foregone conclusion, according to another plenary speaker, Woodside Chief Executive Don Voelte.

Despite the opportunities provided by the international LNG market, Australian LNG can only realise its potential if government policy and project cost pressures are managed effectively, Mr Voelte told APPEA Chief Executive Belinda Robinson in a pre-conference online interview.

He warned about the finely balanced economics of major LNG projects and said this meant the industry must manage risks to avoid delays and budget blowouts.

Mr Voelte said major risks in the next few years include worsening labour shortages and the industrial relations climate. He also warned that any carbon price framework must recognise that LNG reduces overall global emissions, otherwise it risked actually raising global emissions by constraining Australia's LNG sector.

"If Australia gets a reputation that they can't carry these projects off, these reputation issues can really damage an industry very quickly," he said.

"We're talking tens of billions of dollars of investment; these aren't hundreds of millions of dollars. It's amazing how large these project costs are and how marginal the economics can get."

Another keynote speaker, Chevron Corporate Vice President and President of Chevron Global Gas,

John D Gass, agrees that continued success in gas production and commercialisation was not guaranteed. He emphasises the need for continued innovation if Australia is to remain a leader in LNG.

"The emergence of natural gas as a fuel of choice has been facilitated by innovative applications of advanced technologies, better project management and new commercial strategies," he said.

"These advances have unlocked previously inaccessible resources, enhanced environmental protection and created more viable business models.

"The next wave of innovation and technology deployment will provide further support for the 'dash for gas'.

"Realising that promise will require partnership, sound execution, continued applications of cutting-edge technologies, more innovation and an unwavering focus on operational excellence."

Australian LNG can only realise its potential if government policy and project cost pressures are managed effectively.

The platform at the Woodside's Pluto field. Pluto will be Australia's next producing LNG project



- Matthew Rogers and Don Voelte will address APPEA 2011's 11am plenary session on Monday April 11.
- Mr Rogers will speak on *Asia's energy future: the evolution of Asia's gas markets*
- Mr Voelte will speak on *The future of Australia's LNG industry*
- John Gass will address the conference at 9am on Wednesday April 13, speaking on *The role of innovation in unlocking new opportunities for gas*

## New reefs from old rigs

Below: Turning petroleum platforms into artificial reefs can increase local biodiversity

**Turning decommissioned petroleum rigs into artificial reefs can deliver environmental benefits while saving oil and gas companies money, says University of Technology marine ecologist Professor David Booth.**

Decommissioning options include leaving the rig wholly or partially in place, toppling it in place, or removing it. A removed rig can be recycled for scrap or towed to another site to establish an artificial reef.

"You have to look at the carbon cost of moving a rig long distances, say to Singapore or India," Professor Booth said.

"If the rig is placed in the right spot it may actually be of environmental benefit.

"The big question is, 'What is the best thing to do with decommissioned infrastructure?' The answer seems to be that it should be treated on a case-by-case basis."

Even when still operating, petroleum platforms are artificial habitats. They increase local algae and invertebrate populations, which in turn increases the numbers and variety of fish found in the area.

In some cases the least disruptive decommissioning option is to remove the platform and leave the bottom half of the rig in place, or topple it, so local marine life that has already been attracted to the site is not disturbed. But with the rig no longer clearly visible this can be hazardous to fishermen.

"It depends on the site, but sometimes the best option is to tow the rig to another site, usually in deeper water, and place it there to form an artificial reef," Professor Booth said.

"Knowledge of ecological processes, such as how local food web structures might change following reef addition, is critical."

Turning a rig into an artificial reef makes it more attractive to local marine life. Its size and open design attract fish, and the hard surface allows coral communities to form.

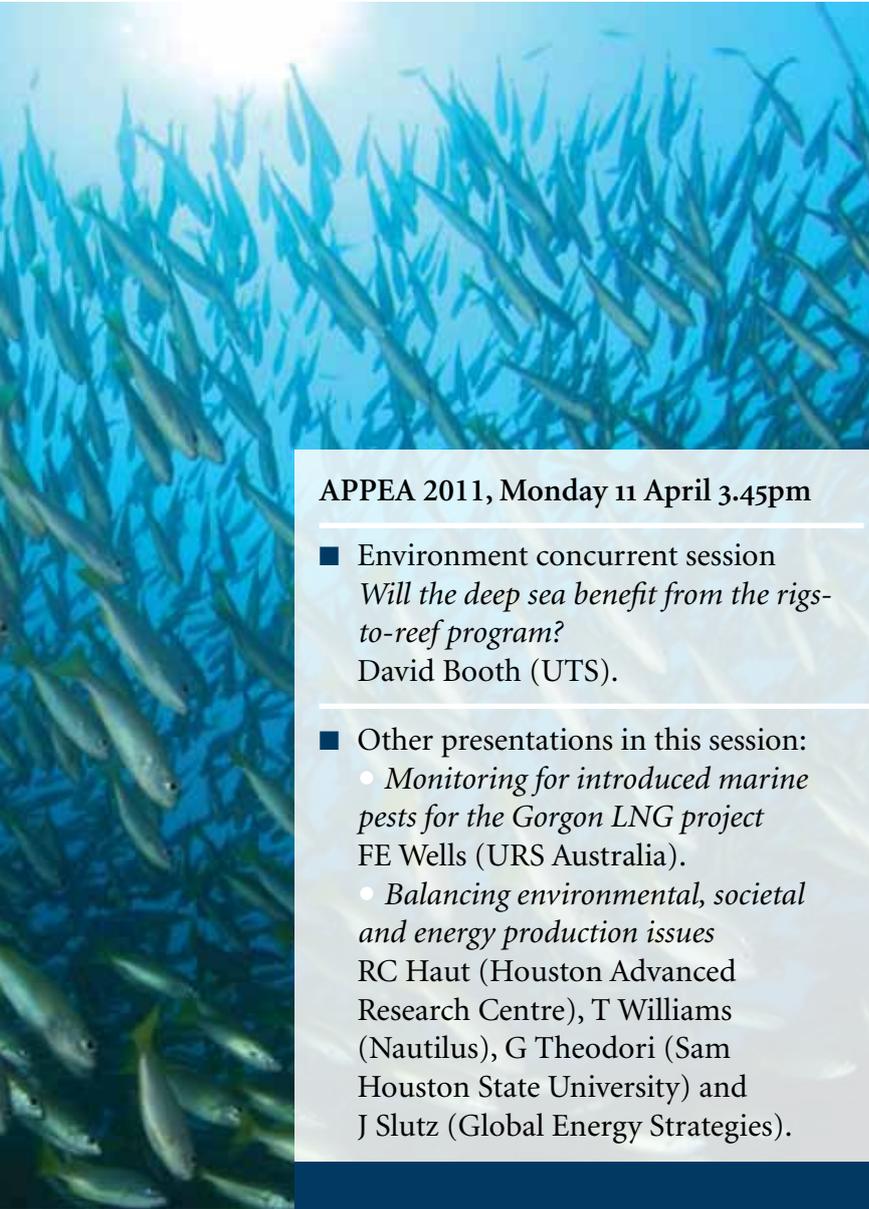
Artificial reefs can also help local economies by drawing recreational fishermen and divers.

Platform operators often support rig-to-reef conversions as a cost-effective alternative to returning a platform to the coast for salvage.

In the US, participating companies are required to calculate savings achieved by a rig-to-reef conversion and donate a percentage of this to a relevant government agency for marine environment programs.

### APPEA 2011, Monday 11 April 3.45pm

- Environment concurrent session  
*Will the deep sea benefit from the rigs-to-reef program?*  
David Booth (UTS).
- Other presentations in this session:
  - *Monitoring for introduced marine pests for the Gorgon LNG project*  
FE Wells (URS Australia).
  - *Balancing environmental, societal and energy production issues*  
RC Haut (Houston Advanced Research Centre), T Williams (Nautilus), G Theodori (Sam Houston State University) and J Slutz (Global Energy Strategies).



## Up there Clontarf!

**Industry, schools and sports teams can cooperate to channel Indigenous youths into positive lifestyles, says Clontarf Foundation Chief Executive Gerard Neesham.**

The Clontarf Foundation's school-based football academies use Aboriginal boys' passion for football to encourage their education and the development of life skills.

"Members aren't selected on football ability," said Mr Neesham, who will be addressing APPEA 2011.

Academy students must attend school regularly, apply themselves to their studies and embrace the academy's requirements for behaviour and self-discipline.

Clontarf's staff live and work in the local community. This enables effective mentoring and the development of strong relationships with the students, he said.

Clontarf combines mentoring with a broad range of extra-curricular activities to expose participants to a wide range of life experiences, including leadership camps and personal development activities. Activities are structured to ensure the development and enhancement of life skills.

Mr Neesham, a former West Australian Football League and AFL player and coach, received a Medal of the Order of Australia (OAM) on Australia Day this year for service to Indigenous youth through Clontarf.

After finishing up as coach of the Fremantle Dockers, he set up the Clontarf Foundation with the first academy at the Clontarf Aboriginal College in Perth. The foundation now operates academies in 44 schools and colleges across WA, Victoria and the Northern Territory.

In 2010, 169 members of Clontarf Foundation academies across Australia completed their Year 12 studies. A specialist employment officer helps graduates find jobs and the foundation's alumni group reports that most graduates are holding down rewarding jobs.

Mr Neesham said industry support for the foundation's work is important.

"It provides critical financial support as well as opportunities, experiences and future employment for our academy students," he said.

"Most of our boys come from regional areas where many resource companies have projects. Our boys want to find local, long-term employment and can provide companies with a local workforce."

Clontarf academy members playing in the Clontarf Foundation's annual Wadjemup Cup on Rottnest Island, WA in November, 2010



### APPEA 2011, Tuesday 12 April

- **Community Engagement concurrent session (11.15am–12.30pm):**  
*Developing a positive lifecycle for young Indigenous men*  
Gerard Neesham (Clontarf Foundation) and  
*Aboriginal engagement: a key component of project commercial value* | Craig Jones (Santos).
- **Skills concurrent session (3.45pm–5.00pm):**  
*Indigenous employment initiatives* | Elizabeth Dodd (Enterprise Connect) and Brad Foster (Northern Project Contracting).

## CSG hits the big time

**2010 and 2011 mark a coming of age for coal seam gas in Australia, according to Wood Mackenzie Lead Upstream Analyst for Australasia, Craig McMahon.**

"With BG and Santos taking final investment decisions on their CSG–LNG projects, in excess of \$30 billion has been committed to the sector just from these two projects alone," said Mr McMahon, a speaker at APPEA 2011.

But he said these projects' nature and large scale meant delivering them will be a major challenge.

Below: CSG operations in Queensland  
PHOTO COURTESY  
ARROW ENERGY



"If you compare the CSG–LNG projects with the conventional LNG projects being built on the other side of the country—like Pluto and Gorgon—they are very different," Mr McMahon said.

"The WA LNG projects will have a few deep wells; the CSG projects will have thousands of shallow wells. The key to success will be in optimising the production processes. They will need to be streamlined as much as possible—a lot like a manufacturing process."

Mr McMahon said Queensland's Surat and Bowen basins were among the world's most successful unconventional gas provinces.

"There are huge volumes of unconventional gas around the world but the bulk of it is subcommercial," he said.

"When you look at what's made Queensland CSG a success, a few things stand out. The productivity of the coals is absolutely key, but Queensland also has relatively good existing infrastructure and a growing and innovative service sector."

Seeing the success of CSG in the Surat and Bowen, some pundits have predicted that other basins in Australia could emerge as major production provinces.

But Mr McMahon said Gladstone's emergence as an LNG hub could have mixed blessings for newcomers.

"Delivering Curtis Island [the Gladstone LNG hub] could be key to emerging CSG plays as it offers the export infrastructure to monetise gas through brownfield expansion projects," he said.

But once Gladstone has matured as an LNG centre, there may be little room for other east coast gas export hubs.

Basins near the new infrastructure have the best chance of success, but even in these cases developing gas exports could prove difficult, according to Mr McMahon.

"The Surat and Bowen have first-mover advantage and this could prove crucial," he said.

"Emerging basins are behind the game and behind the huge investment that's being made at Gladstone. In future years new players could be competing against expansion projects from the existing players to access finite export markets. This may mean domestic options become more realistic for any newcomers."



## APPEA 2011, Monday 11 April

- Gas Markets concurrent session (3.45pm).  
*Review of Australia's unconventional gas plays*  
Craig McMahon (Wood Mackenzie)

## Tuesday 12 April

- Gas and Gas Storage concurrent session (11.15am)  
*The changing face of Queensland's petroleum industry*  
A Troup and P Green (Geological survey of Queensland)
- Community Engagement concurrent session (11.15am)  
*CSG exploration and production in NSW: the new access argument*  
Jonathan Fulcher (HopgoodGanim Lawyers)

## Wednesday 13 April

- Plenary session (9.00am)  
*The role of innovation in unlocking new opportunities for natural gas*  
John Gass (President of Chevron Global Gas)

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