



FLOWLINE

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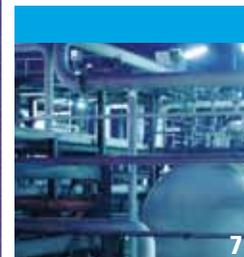
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from the chief executive



Belinda Robinson
Chief Executive

Belinda Robinson signs off after six exciting and rewarding years

What an odd feeling it is to be writing my final piece for Flowline and to be reflecting on the six wonderful years I have spent as APPEA's Chief Executive.

It has been an amazing time.

When I arrived the oil price was US \$55 and projects, so I'm told, were being modelled on US \$10–15 reflecting the jitters that were still being felt as a consequence of the US \$13 oil price that tormented the industry only a few years earlier.

Coal seam gas was an experiment for the brave and faithful, APPEA's focus was on arresting declining oil production, and gas was very much on the periphery.

APPEA's membership and conference attendance was half what it is today. The Coalition had been in power for a decade and you couldn't get a politician to mention gas in the same sentence as climate change or energy security.

Things have changed. The Prime Minister consistently points to gas as the key to making the transition to a less carbon-intensive energy future.

And CSG has turned energy on its head. Now supplying 90 per cent of Queensland's gas demand (and projected to supply 88 per cent of east coast gas needs by 2030) CSG is poised to deliver eastern Australia's next big export industry. Its growth has been nothing short of extraordinary.

When I arrived in July 2005, the giant North West Shelf project was Australia's only LNG export project. Today we have two projects exporting, five under construction, a further \$120 billion worth of LNG investment on the drawing board, and

the reality of floating LNG assured. We are now well on our way to becoming the world's second largest LNG exporter.

This wonderful journey has all been possible because the 2005 APPEA Board, chaired by Reg Nelson, entrusted me with 45 years of history, to build on the legacy left by my five predecessors—Ken Horler, Graham Maxwell, Keith Orchison, Dick Wells and Barry Jones—to continue to grow and evolve APPEA as the influential and respected voice of Australia's oil and gas industry. For the privilege, I thank them.

I thank the Board and its chairmen—Reg Nelson, Colin Beckett, Mark Nolan and Eric Streitberg—for its counsel, support and steerage over the past six years and the APPEA members for giving the organisation such strong support. APPEA only exists to serve you—this simple fact guides everything that APPEA does.

A word of thanks to the APPEA staff. I have had the good fortune to work with and lead the most diligent, committed, loyal, competent and functional team in my career history. The staff of APPEA is, without doubt, its greatest asset. As individuals they are sensational, as a team, outstanding. They have my deepest gratitude.

Soon after I started with APPEA a journalist asked me what I would be doing if I hadn't accepted the offer to join APPEA. If I'd thought quickly enough I would have said, "wishing I'd joined APPEA".

I'm so pleased I did come on board.

Thank you to everyone I have worked with, and for. It's been amazing.

Over and out.

Australia's carbon price will cut competitiveness but not global emissions

Damian Dwyer

The carbon policy announced on 10 July recognises the role of gas in reducing emissions intensity within Australia but fails to help Australia's gas export industry in reducing global emissions. Indeed, the policy will advantage liquefied natural gas (LNG) producers in Qatar, Malaysia, and Indonesia who will not be operating under a carbon price regime.

The Australian Government is frequently willing to laud the role gas can play in reducing Australian greenhouse gas emissions, and this recognition has been welcomed by the industry. It appears, however, that this recognition does not extend to export gas.

The export gas industry rejects the politically motivated label of 'big polluter'. For every tonne of emissions produced in liquefying natural gas, up to nine and a half tonnes can be avoided when substituted for coal and used for electricity generation in customer countries.

Whether used in Australia or exported, gas has a big part to play in reducing global emissions. There is no rational reason for a policy that recognises the low emissions properties of gas for Australian use but constrains exports.

In its current form, the Australian Government's carbon pricing policy risks driving emission reductions in Australia while impeding the delivery of greater emission increases elsewhere in the world.

The industry is baffled by the Australian Government's reluctance to promote the potential for Australian gas to reduce emissions in countries where reductions are most needed.

Under this policy (which appears to be unchanged from the outcome announced in November 2009):

- LNG producers will initially receive up to 66 per cent of their permits, with this allocation decaying to 50 per cent over time.
- The allocation of permits will be reviewed in 2014–15, adding further uncertainty to LNG producers contemplating major investment decisions.
- For the initial allocation of permits, LNG is narrowly defined—only emissions from the LNG plant itself, rather than from the whole production process, are considered.

This approach places extra burdens on an industry already struggling with high costs.

A recent Macquarie Equities report found nine of the world's 10 most expensive (new and proposed) LNG projects are in Australia. The same report said: "Australian projects are not well placed if cost pressures continue to build".

- For every tonne of CO₂-e associated with Australian LNG production, up to 9.5 tonnes of emissions can be avoided in customer countries.
- LNG has a substantially lower greenhouse footprint associated with it compared to coal—not just in combustion emissions, but throughout its lifecycle
- The lifecycle greenhouse intensity for LNG is about 40 per cent lower than that of coal.



Australia's gas exporters will be disadvantaged by having to compete against LNG projects in countries without a carbon tax.

Construction at Woodside's Pluto LNG Park: will the carbon tax inhibit the development of further Australian LNG projects?



A messy way to clean up

It is clear that the carbon pricing policy perversely undermines Australia's gas export sector, but surely it will drive cleaner energy outcomes domestically?

The answer is "Yes, but the package as announced is unlikely to deliver cleaner energy the most efficient or cost-effective way."

The carbon pricing announcements make no mention of the Australian Government's intentions regarding the 237 other climate change policies and programs already in existence.

These policies have been identified by a range of reviews as a significant barrier to reducing emissions at the lowest possible cost.

It is clear that in sectors where a carbon price co-exists with other competing measures, the effectiveness of the pricing mechanism is blunted, the total costs higher and, in some cases, perverse emission outcomes are produced.

History shows the folly of government picking winners. By investing in pet projects, the Australian Government could discourage investment in alternative options.

If the Australian Government is truly committed to a market mechanism to reduce greenhouse gas emissions

Where a carbon price co-exists with competing measures, the pricing mechanism's effectiveness is blunted

then it should discard schemes that clearly do not fit into that category.

Governments—federal and state—must have the courage to sift through all of the existing policies and programs and only retain those that can meet the following three key criteria:

- Addressing a clear market failure.
- Not compromising the efficiency of the market measure.
- Offering the least-cost means for addressing the identified market failure.

Unless these programs and policies are withdrawn, the carbon pricing scheme will simply add a market mechanism to reduce emissions on to a confused hotch-potch of inefficient and often counterproductive schemes.

Water forum shows CSG and agriculture can co-exist

Ross Dunn



Industry, government, landholders and community representatives came together at APPEA's Coal Seam Gas Water Forum in Brisbane to exchange information and ideas on water management.

This event showed that hard facts and open-minded dialogue can pave the way to healthy co-existence between gas production and agriculture.

Presentations at the water forum highlighted that:

- CSG water will be a major new resource for Queensland
- there is so much water in the Great Artesian Basin that there is no risk that the industry will seriously deplete water resources
- estimates of CSG water production are continually falling as more information is produced
- the industry's monitoring and testing activities will add significantly to the already considerable body of knowledge about the Great Artesian Basin.

CSG not affecting aquifers beyond coal seams

The APPEA CSG Water Forum was told that an industry-wide review of years of groundwater monitoring in and around Queensland coal seam gas fields has found no impact on groundwater outside the gas-producing coal seams.

Origin Energy Groundwater Manager Andrew Moser said monitoring has been in place for operating gas fields for up to five years in the Surat Basin and almost 10 years in the Bowen Basin.

"No CSG impacts have been found outside the coal measures to date, which is in-line or better than modelling predictions," Mr Moser told the forum.

Only a few farmers draw water directly from coal seams. Most bores tap into shallow aquifers above the coals.

If any impacts on aquifers are detected, 'make-good provisions' will see treated CSG water being supplied directly to stakeholders or water being reinjected into affected aquifers, or both.

As CSG operations expand, extensive monitoring bore networks are being installed and all landholder bores are being surveyed.



Agforce Projects Manager
Sue Dillon



Basin Sustainability Alliance Chairman Ian Hayllor

CSG water a new resource for thirsty regions

Not only has it been found that CSG water production is not depleting aquifers commonly used by farmers, but water drained from coal seams can actually be used to recharge other aquifers, Mr Moser said.

It can also be used for other beneficial purposes, including aquaculture, stock watering, irrigation, industrial and construction applications, and town water, according to another speaker.

Arrow Energy Beneficial Use Coordinator Kylie Holmes presented an industry-wide overview of possible beneficial uses for CSG water.

CSG water varies widely from coal seam to coal seam. Water from some seams can be used untreated for a variety of beneficial purposes, while some other water does require treatment.

Under the Queensland Government's Coal Seam Gas Water Management Policy, the preferred management options are:

- to inject water into aquifers where no detrimental impact is likely
- treatment to an agreed standard for agricultural, industrial and potable uses
- untreated use where no detrimental impact is likely to occur.

CSG production water can be used to recharge other aquifers used by farmers

continued overleaf >>

Talking CSG

Feedback from people attending the APPEA CSG Water Forum was overwhelmingly positive.

The speakers and information were well received. The audience was highly engaged, asking the presenters and members of the concluding panel discussion plenty of questions.

All of the major CSG–LNG proponents outlined their water management strategies and were represented on the panel discussion. Leading independent experts spoke on water reinjection and the interaction

between geology and water extraction. Senior state government officials discussed CSG water regulation.

Queensland’s rural advocacy body, Agforce, and regional environmental lobby group, the Basin Sustainability Alliance, also addressed the forum.

CSG companies have been producing gas in Queensland for more than a decade, but the industry is still new to many people, making it vulnerable to scare campaigns and misinformation.

Events such as the APPEA CSG Water Forum help to provide an evidence-based approach to managing development.

They also facilitate dialogue between the CSG industry and stakeholders, and help educate the broader communities in areas where the industry operates.

Given the positive response to the CSG Water Forum, more APPEA-run CSG events are likely.

APPEA MAKES SENIOR CSG, EAST COAST APPOINTMENT

APPEA Chief Operating Officer — Eastern Australia
Rick Wilkinson



On July 4, Rick Wilkinson assumed the new role of APPEA’s Chief Operating Officer – Eastern Australia. He will be based in Brisbane and will lead the industry’s advocacy throughout NSW and Queensland.

An Australian national, Mr Wilkinson has been working in the oil and gas industry for more than 30 years.

For the past 14 years he has been working with Santos, most recently heading the Gladstone LNG project.

APPEA Chief Executive Belinda Robinson said Mr Wilkinson would bring immense technical and commercial expertise to this new role.

“Few people possess Rick’s level of operational knowledge, hands-on experience, and credibility. He is held in the highest regard within industry and throughout government, making him ideal to spearhead the promotion of the rapidly expanding CSG industry.”

Ms Robinson said the industry’s development is stimulating regional economies and delivering enormous environmental benefits as CSG replaces coal as an energy source throughout Australia and Asia.

“However, the industry cannot allow its spectacular growth to out-strip the level to which it is understood within government, or accepted by the community,” she said.



CSG companies and farmers can co-exist to the mutual benefit of both parties.

Energy and agriculture: the best of both worlds

Matthew Paul

Queensland has recently introduced a strategic cropping land policy that shows how CSG production can co-exist with farming. Unlike open-cut and underground mining, CSG production causes minimal disturbance to the surface and a project site can be fully rehabilitated.

As with any new development, during the construction phase of CSG infrastructure, there may be disruption to farming. Livestock operations and landholders are fully compensated for this.

But during a CSG project's longer term operations phase the impact on existing farming and livestock operations is limited.

Existing developments on properties demonstrate that CSG operations can coexist with farming and livestock operations, and the CSG industry can actually enhance agricultural productivity by supplying a new source of water.

Some water drawn from coal seams by CSG production is fit for use for stock watering or irrigation. In other cases some processing is needed to make the water fit for purpose.

As part of the extensive environmental assessment and approvals process applied to every CSG project, there have been wide-

ranging assessments of CSG exploration and production on the sustainability of agricultural land.

Developed over many months, Queensland's new strategic cropping land policy represents the most comprehensive framework regulating resource industry activity on Australian farming land.

Following thorough scientific assessment and consultation with many stakeholders—including peak agricultural bodies—the policy was based on findings that well-designed CSG operations can be accommodated without permanently impairing the land.

Gas wells are considered to have a temporary impact as the land can be restored back to prime cropping land when the development ends.

Once they are laid in place, gas pipelines can operate safely for decades with no impact on farming activity.

The strategic cropping land policy also recognises that the CSG industry has already made efforts to structure development to facilitate co-existence with farming. These include:

- increasing the spacing between wells and adopting a flexible approach to placement of wells for field development
- trialling the construction and placement of a transmission pipeline on intensively farmed land using world-leading practices to demonstrate that soils can be removed and replaced in layers to maintain the existing soil profiles
- ensuring the area can be thoroughly rehabilitated to minimise impacts on farming businesses.

Exploring solutions

Ranga Parimala

Government-funded pre-competitive geoscience surveys are in the national interest.

The Australian Government's Strategic Review of Geoscience Australia (GA) recognises the importance of government-funded survey programs in attracting exploration investment to Australia.

The report recognises that government-funded pre-competitive geoscience surveys are very much in the public interest and it likens this work to the development of an investment prospectus for a complex asset.

Government uses pre-competitive information to decide which specific areas within a region are viable to offer for private exploration and to promote the exploration potential of Australian territory.

"The primary beneficiary is government in achieving the most favourable terms for the release of exploration permits," the report says.

"From this perspective alone, available evidence shows a strong case for the Australian Government to continue investment in pre-competitive information."

The review is timely. Even with growing demand for liquefied natural gas, Australia's exploration levels are plateauing and further investment in exploration is necessary.

The review has also recommended that the Australian Government reassess current arrangements for offshore exploration, with a view to improving exploration investment in Australia.

Exploration is the feedstock for successful and sustained future development.

In a report commissioned by APPEA, ACIL Tasman concluded that Australia's actual reserves of both liquids and gas would have been significantly below the current level without the exploration that has occurred over the past decade.

APPEA is keen to engage with government regarding the review's recommendations, particularly on funding issues and the long-term benefits of the work program bidding system.

Fiscal and other incentives are very likely to improve investment in frontier basins



Seismic survey acquisition: government-funded survey programs are an important driver in petroleum exploration and development.
PHOTO COURTESY WOODSIDE

■ For more on Australian oil and gas exploration see the graphs on pages 11 and 12.

Exploring frontiers

The review notes that large parts of Australia remain relatively unexplored or underexplored for oil and gas.

"Encouraging exploration in frontier areas has been regarded by governments as a high priority for achieving future domestic energy security and for servicing export markets," the report says.

Recognising that fiscal and non-fiscal incentives are very likely to improve investment in Australia's unexplored frontier basins, APPEA has proposed an innovative permit model to the government.

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Under this system, extra-large 'reconnaissance permits' would be released in frontier areas through the existing work program bidding system.

Surveys and data collection over these large lease areas would help build genuine regional geological perspectives, making a huge difference in poorly understood frontier regions.

Government has shown interest in this idea and APPEA is pleased that the strategic review canvasses this option.

"A possible alternative strategy to the government investing in pre-competitive information for attracting private sector investment to relatively small exploration areas is to offer much larger areas for exploration permits," the report says.

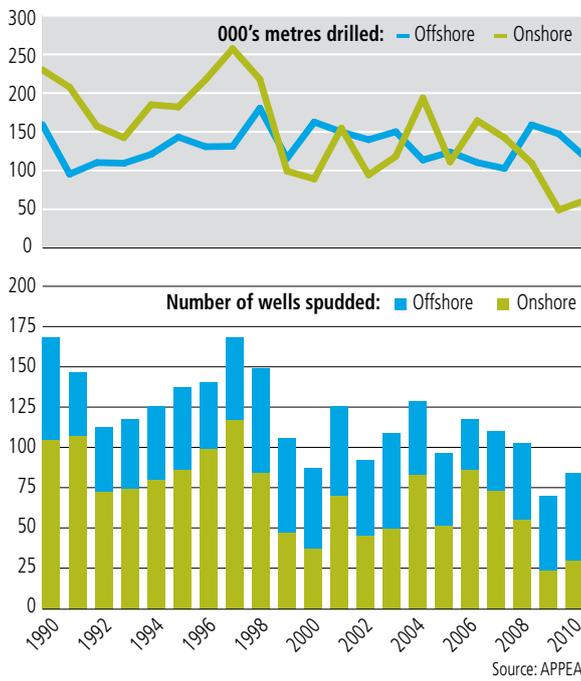
"The lower average prospectivity for the released acreage would be offset by the greater area offered which could also make strategic geological studies to find exploration targets more economic for private investors.

"DRET [the Department of Resources, Energy and Tourism] is in the early stages of developing an option of this kind — known as Reconnaissance Exploration or 'ReconEx' — for release of offshore exploration acreage."

The review recommends further investigation to assess the viability of reconnaissance permits and APPEA welcomes the opportunity to participate in further consideration of this model.

Australian oil and gas exploration and development

AUSTRALIAN EXPLORATION WELLS SPUDDED AND METRES DRILLED 1990–2010



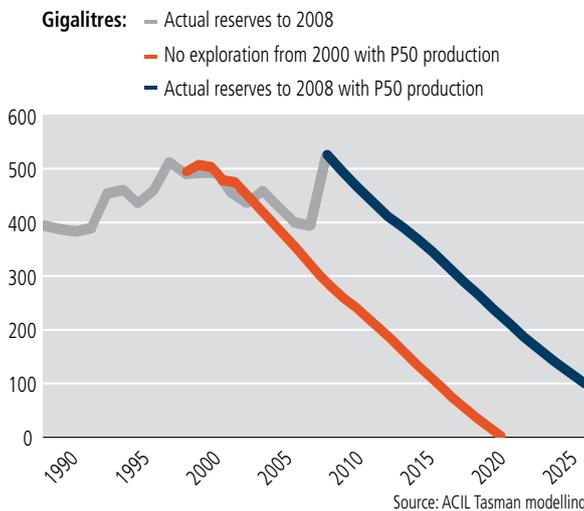
AUSTRALIAN EXPLORATION ACTIVITY 2000–2010



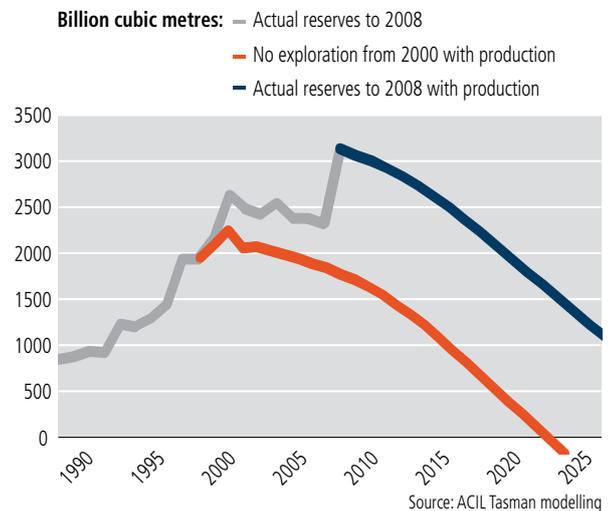
The overall pattern in Australian oil and gas exploration drilling is one of decline.

Without ongoing investment in exploration Australia's petroleum production would be much lower than it now is.

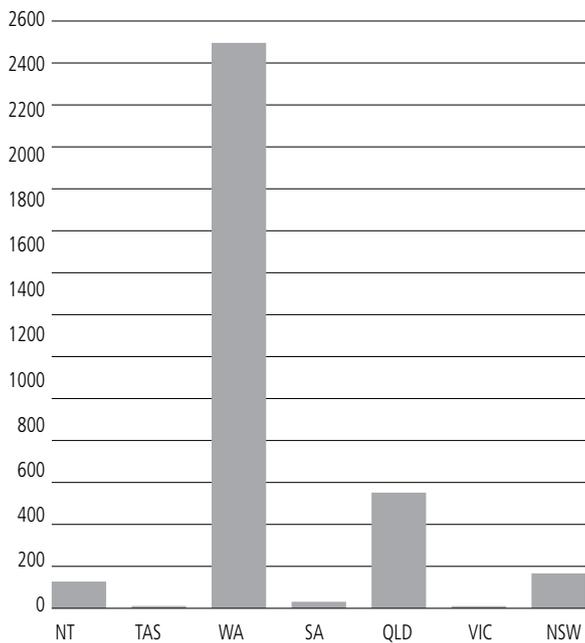
AUSTRALIAN OIL AND CONDENSATE RESERVES SCENARIOS 1990–2025



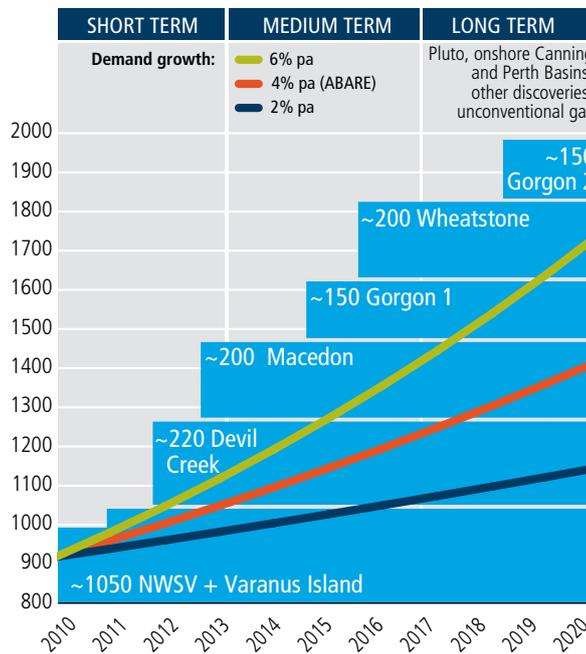
AUSTRALIAN GAS RESERVES SCENARIOS 1990–2025



2010 EXPENDITURE BY STATE (\$MILLIONS)



WA GAS SUPPLY CAPACITY AND DEMAND GROWTH (TERRAJOULES PER DAY)



Exploration spending is delivering a significant increase in Western Australia's gas production.

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The WA domestic gas sector is growing rapidly; the Varanus Island gas plant. PHOTO COURTESY APACHE AUSTRALIA

Streamlining offshore regulation will benefit all

Mark McCallum

The Montara Commission of Inquiry found that substantial improvements were needed in Australia's offshore oil and gas regulatory regimes.

The Montara Commission raised concerns over regulatory disconnects created by separate federal, state and territory regulation of safety, environment and well integrity. Its report recommended major changes, including establishing a single integrated independent authority responsible for safety, well integrity and environmental plans.

APPEA has been working with jurisdictions to improve the efficiency, effectiveness and timeliness of the regulatory system as the means for securing the robust and professional oversight of the industry's activities.

The Commonwealth has introduced legislation to establish by 1 January 2012 two new authorities to be headquartered in Perth.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) will be a new day-to-day technical regulator that removes regulatory disconnects in safety, integrity and environmental regulation in Commonwealth waters.

The other new body, the National Offshore Petroleum Titles Administrator (NOPTA), will administer permitting titles in Commonwealth waters.

An important aspect of any new regime is that there will be strong administrative cooperation between NOPSEMA, NOPTA and state offshore and onshore regulators.

In discussions with state and commonwealth governments around the future of offshore petroleum regulation, APPEA sought to ensure that state governments would maintain a role in decisions relating to oil and gas developments in Commonwealth waters by retaining their powers and authorities under the existing joint authority arrangements. APPEA maintains that the role of state ministers in determining the circumstances and conditions under which major projects will proceed should be retained.

APPEA understands that state ministers will retain their existing powers and discretions under the existing joint authority arrangements. The existing joint authority arrangements will be maintained, ensuring that ministers

retain existing powers to adjudicate on matters such as retention leases, production licences and exploration permits through the existing joint authority arrangements. But day-to-day technical regulation of the industry and provision of technical advice to both Commonwealth and state ministers in Commonwealth waters will transfer from state government agencies to NOPSEMA.

A solution has been proposed in which NOPSEMA, NOPTA and the WA Department of Mines and Petroleum (DMP) would be co-located. Should all jurisdictions agree to the details, this would:

- let all agencies share systems, data, staff, resources and overheads with potential for agencies to exchange staff on secondment
- improve cooperation by forming joint regulatory project teams
- allow more attention to any regulatory gaps in the transition to the new system
- potentially speed up the removal of duplicative and inefficient regulation across jurisdictions to deliver meaningful improvement in how the sector is regulated, rather than continue with the preoccupation on structural reform.

Co-location of the industry's onshore and offshore regulators may result in a smoother transition, increase the consistency in regulatory approach, and result in more timely approvals with less back and forth between jurisdictions, and better use of scarce and expensive regulatory resources. It would also potentially ease leakage of onshore regulatory staff to the new offshore regulators.



A new offshore regulatory regime must:

- provide robust professional oversight of offshore oil and gas
- deliver greater regulatory efficiency
- be subject to appropriate accountability and governance arrangements
- address the regulatory failings identified in the Montara Commission's report.

PHOTO COURTESY WOODSIDE

Miranda Taylor

Oil and gas industry applying lessons from Montara

The Australian oil and gas industry has thoroughly reviewed its procedures in the wake of the Montara and Macondo (Deepwater Horizon) incidents.

APPEA member companies have used using multi-disciplinary in-house taskforces to review critical safety, environmental management and operational areas, including well design, integrity and operations, barrier principles and verification systems.

Working together through the APPEA Montara Taskforce, the industry has developed its own recommendations for improving Australia's well incident prevention, intervention and response capability.

The taskforce is also working internationally to ensure Australia is fully integrated into any global industry responses.

The self-audit tool has now been developed and has been published for release at the August 2011 APPEA National Oil and Gas Safety Conference.

A mutual aid memorandum of understanding will soon be finalised and signed by regulators and representatives of APPEA member companies.

Work has begun on establishing a well integrity sub-committee. APPEA members are also working with the international industry on well capping and containment strategies for offshore oil spills.

The Australian oil and gas industry is committed to developing an international capping response strategy that incorporates regional and local capacity. This requires careful research and development that accounts for Australia's ocean conditions and the fact that most Australian drilling focuses on gas rather than oil.

Several APPEA member companies have agreed to help design and scope detailed technical specifications for an Australian-based capping stack solution. This phase is expected to take six months.

In addition, APPEA members have also been reviewing and further developing the industry's oil spill response capabilities and the industry-funded Australian Marine Oil

Spill Centre (AMOSC) has assessed response capabilities and capacity.

AMOSC provides response capabilities to major oil spills and can deploy staff and equipment anywhere in Australia within 24 hours.

Recent industry initiatives include:

- a review of AMOSC equipment requirements placements around Australia
- doubling the AMOSC core group (appropriately trained employees from member companies who are on-call with AMOSC) from 42 to 84 people
- facilitating better access to international expertise and ongoing representation at international forums
- new accredited oil spill management and spill-response training programs
- developing information-sharing systems
- improvements to fatigue-management programs.

Collectively, these measures will significantly reduce the risk of future oil and gas spills occurring and will enable a rapid and effective response to any such incidents.

Key recommendations from the APPEA Montara Taskforce include setting up:

- a self-audit tool to provide guidance in integrating permit holders' and contractors' well operations safety management systems
- mutual aid guidelines to encourage companies to help each other and share equipment when responding to offshore incidents
- a new well integrity sub-committee to link into the newly established international Well Expert Committee set up as part of the global industry response to Macondo, Montara and other such incidents.



Safety first in oil and gas

2010 APPEA National Safety Conference (above, left to right): Resources and Energy Minister Martin Ferguson; NOPSA Chief Executive Jane Cutler addresses the conference; and Safetrain Managing Director Christian Sylvestre.

APPEA's 2011 National Safety Conference is being held at the Burswood Convention Centre in Perth on August 9 and 10.

Themed *Safety throughout the lifecycle*, the event will bring together oil and gas professionals in a wide variety of roles, from the boardroom to the frontline, to discuss how the industry can achieve real and sustained improvements in safety performance.

Conference 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, a leading authority on managing safety in the oil and gas industry, who says we have to move from linear, deterministic thinking to new models in order to achieve much higher levels of safety
- 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 Ed Perz, head of Perz Consulting
- an address by NOPSA Chief Executive Jane Cutler
- addresses by industry leaders, including Apache Energy Managing Director Tom Maher, Schlumberger Australia managing director Gavin Rennick and Clough Chief Executive John Smith
- expanded exhibition space
- three concurrent streams tailored to the needs of various industry sectors.

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

The conference will be preceded by the HSR Forum on Monday 8 August. Specifically focused on health and safety representatives, this event is coordinated by APPEA and chaired by NOPSA. It allows HSRs to network, develop their skills and share their own safety experiences, solutions and best practices.

Visit www.appeasafetyconference.com.au for more information.

Oil and gas industry stands together for safety

Leanne Drewitt

Aiming to further improve its strong safety performance, the Australian oil and gas industry held its third annual Stand Together for Safety event in May.

Across the country, teams stopped work for two hours on a designated day in May for structured discussions about improving workplace safety.

The 2011 theme was *From the Boardroom to the Frontline*, and the event facilitated discussions on safety between executives, senior managers and frontline workers.

This emphasised the key message that safety is everyone's responsibility and it relies on all staff working together.

In 2010, the Australian oil and gas industry recorded its lowest-ever lost-time injury frequency rate, posting a 23 per cent improvement from 2009. This makes the sector one of the country's best safety performers.

Ongoing improvements in the industry's safety performance are largely driven by strong leadership and safety cultures in which everyone has their eyes firmly on safety at all times.

Programs such as Stand Together for Safety are a critical part of creating this safety culture, according to APPEA

Chief Executive Belinda Robinson. "The industry's safety performance is already strong but there is no room for complacency in a high-hazard industry such as ours," Ms Robinson said. "We must continually seek to identify warning signals and seek opportunities for improvement. The only acceptable injury rate is zero."

Organised by APPEA, Stand Together for Safety is held annually across the Australian oil and gas industry, contributing to improved and sustained safety performance. APPEA has developed various resources, including posters and industry presentation templates that companies can easily modify to suit their individual needs.

The official start date for 2011 was Monday 2 May, and companies were encouraged to focus their activities around the first week in May where possible. But Stand Together for Safety ran throughout May so that companies could rotate through their crew shifts, ensuring that all workers could be involved.

More than 25,000 workers across the industry participated in the 2011 Stand Together for Safety. In 2012 participation is expected to be even higher.



A Stand Together for Safety session at the Woodside-operated Karratha Gas Plant.

SAFETY AT BEACH



A fire safety demonstration at Beach Energy's head office Stand Together for Safety event.

Beach Energy held events across all of its operations for the 2011 Stand Together for Safety campaign.

The Beach Board of Directors attended the event at the company's Adelaide head office, according to Beach's HSE Manager Denny Kotru.

"The event included a fire safety demonstration using state-of-the-art equipment being introduced at field locations to support emergency response training programs," he said. "Office-based staff gained valuable skills and knowledge regarding the use of fire blankets and fire extinguishers."

Following the head office event, several senior managers, including Chief Operating Officer Neil Gibbins, visited field locations to conduct presentations with all field employees.

"The presentations included updates on actions that arose from the 2010 STFS," Mr Kotru said. "This provided an opportunity for all field employees to discuss safety performance in a relaxed atmosphere."

A key initiative for this year's event included a safety culture survey that was used to gauge if the organisation was aligned with the workforce.

This initiative was well received by the workforce, according to Mr Kotru.

"Feedback on the value of conducting the survey was very positive," he said.

"Information gathered from the survey is being used to further strengthen the company's safety programs. The STFS is a good platform for conducting this type of activity."

JULIMAR TEAM PLAYS IT SAFE



PHOTO COURTESY APACHE ENERGY

The Julimar Development Project team, including staff from operator Apache Energy, joint venture partner Kufpec and contractor JP Kenny, participated in a Stand Together for Safety session on 13 May. The session focused on what could be done now during Julimar's detailed design and contracting phase that would increase safety during the fabrication, installation and operational phases. Since this session, two focus groups have met to prioritise an action list focusing on items not considered to be business as usual. Some of these points include:

- safety leadership during site visits
- communication of a unique Julimar safety message
- active sharing of personal lessons learned
- an original approach to supporting contractor safety initiatives.

Julimar Development Project Health and Safety Coordinator, Libby Hood, said the team looked forward to working and reporting on these initiatives over the next 12 months.

"Given the early focus on safety and the engagement for the entire project team, there is a real opportunity for these initiatives to help to make the point of difference."

Julimar is a major Western Australian project aimed at developing gas for the Chevron-operated Wheatstone LNG project.

People for projects

Brunel Energy | ASSOCIATE MEMBER

Brunel Energy provides specialist personnel to the international oil and gas and construction industries.

Brunel Energy offers a combination of project management support, engineering support, construction supervision, vendor inspection and recruitment services. These services cover exploration, production, construction and maintenance within the upstream and downstream oil and gas sectors.

"Being an international provider, we offer a global database of professionals and specialists in a wide range of disciplines," said Brunel Energy Australia General Manager Ruth Furber.

Supported by its publicly listed parent company—Brunel International NV—Brunel Energy has been operating in recruitment and resourcing services since 1975.

It has more than 90 offices located around the world—including in Perth and Brisbane—and offers a broad scope of services and networks.

Ms Furber said this international scope was becoming increasingly important.

"Australia's big oil and gas developments are facing growing pressures, including skills shortages," she said.

"Local cross-training programs can alleviate some pressure, but skilled overseas workers are also needed if these projects are to be realised on time.

"Qualified engineers can be attracted globally; and on the construction side, skilled workers can be attracted from South-East Asia and facilitated via Brunel's 457 labour agreement.

"Brunel is pleased that the Australian Government is recognising the importance of these LNG projects and the pressures they are facing. Hopefully this will also lead to more flexibility in immigration, which is currently in high demand by the industry."

Ms Furber said the worldwide gap between new graduates and skilled professional leaving the petroleum industry could be partially addressed by giving petroleum-specific training to skilled workers from other industries, such as process technology, power, chemistry, machinery production and other heavy industries.

"Brunel can add value in helping companies find ways to implement this approach," she said. Companies, however, must also work to retain not only good staff but also good contractor personnel, according to Brunel.

"Concentrating solely on monetary rewards is one reason why many companies fail to retain their best contractor personnel," Ms Furber said. "There will always be another company willing to pay more."

She said companies must identify and nurture their key contractor resources by offering: flexible working arrangements and reasonable working hours; highly technically challenging work; longer-term career development and stability; and positions of real authority and decision-making autonomy.



Taking an expansive approach

Eni Australia | FULL MEMBER



The floating processing, storage and offtake vessel at Eni's Kitan project.

Eni Australia is an arm of Italy-headquartered Eni, a major integrated energy company with about 78,400 employees and active in 77 countries.

In Australia since 2000, Eni has interests in 13 exploration permits in Australia, Timor-Leste and the Joint Petroleum Development Area (JPDA), which lies between Australia and Timor-Leste. The company is the operator in 10 of these permits and is looking for more opportunities in Australia.

Last year, Eni began developing the Kitan oil field, in the JPDA about 500 kilometres north of Darwin. Eni is the operator and holds 40 per cent in this field. Its partners in Kitan are INPEX (35 per cent equity) and Talisman Resources (25 per cent).

Eni is also a 10.99 per cent partner in Darwin LNG and Bayu-Undan. In addition, it operates the Woollybutt oil field in the Carnarvon Basin (65 per cent) and the Blacktip Project (100 per cent) in the Bonaparte Basin.

In May, Eni executed a farm-in agreement with MEO Australia Limited and in July it became the operator (with 50 per cent equity share) of permit NT/P68 in the Timor Sea.

This lease contains the Heron and Blackwood gas discoveries. An active exploration programme involving acquiring seismic surveys and drilling wells is planned

for this permit, according to Eni Australia Managing Director Antonio Baldassarre.

"We are actively working to maximise the value of these assets, constantly exploiting opportunities for expansion," Mr Baldassarre said. "We are also looking for further opportunities to expand our exploration program."

Mr Baldassarre said Australia's proximity to Asian markets, its social and economic stability and the substantial inferred volume of exploration reserves still to be discovered had attracted Eni to this country.

"Australia is mainly a gas province," he said. "We are seeing the construction of a number of world-class LNG projects—this represents a great opportunity for the development of existing and still-to-be-discovered gas fields."

APPEA scholarship supports geology research

APPEA has awarded a Tony Noon Memorial Scholarship to an outstanding young carbonate geology researcher.

Ashleigh Hood is a PhD student at the University of Melbourne who is studying the formation of sedimentary dolomite, particularly in Cryogenian reef complexes in South Australia's northern Flinders Ranges.

APPEA has presented Ms Hood with a Tony Noon Memorial Scholarship to assist her in travelling to Europe.

In July she presented her research at the 28th IAS Meeting of Sedimentology in Zaragoza, Spain and the 14th Bathurst Meeting of Carbonate Sedimentologists in Bristol, England.

APPEA Vice Chairman John Dashwood presented the scholarship and congratulated Ms Hood on her research work.

"The Tony Noon Scholarship is one of several scholarships that APPEA offers on behalf of Australia's oil and gas industry to support the invaluable work of outstanding students and researchers," Mr Dashwood said.

Awarded annually, the scholarship was established in memory of Tony Noon who made an outstanding contribution to the petroleum industry through his work with the Queensland Department of Mines and Energy and later as a member of the APPEA staff.

The scholarship is a one-off grant to a maximum value of \$3000.

It is aimed at helping students aspiring to, or considering, a career in the Australian petroleum exploration and production industry in any discipline directly related to the industry. This could include, but is not restricted to, exploration, safety, engineering, environment, and economic or legal studies.

APPEA invites applications from honours, Masters or PhD students at Australian universities. Applicants must be attending a university in the year of application and be an Australian resident or citizen.

For more information about this scholarship see www.appea.com.au



APPEA Vice Chairman and ExxonMobil Australia Chairman John Dashwood presents the 2011 Tony Noon Scholarship to carbonate geology researcher Ashleigh Hood.

Dates for your diary

DATE	EVENT	LOCATION	MORE INFORMATION/TO REGISTER
2011 August 2011	Call for papers open for the 2012 APPEA Conference and Exhibition	Online	www.appeaconference.com.au
8 August	HSR Forum	Perth, WA	www.appeasafetyconference.com.au
9–10 August	APPEA National Oil and Gas Safety Conference	Perth, WA	www.appeasafetyconference.com.au
15 September	Introduction to Petroleum seminar	Adelaide, SA	www.appea.com.au/events/
16 September	Introduction to Petroleum seminar	Canberra	www.appea.com.au/events/
7–9 November	APPEA National Environment Conference	Coolum, QLD	www.appeaenvironmentconference.com.au
10–11 November	APPEA Taxation and Commercial Conference	Coolum, QLD	www.appeataxconference.com.au (APPEA members only event)
2012 13–16 May	2012 APPEA Conference and Exhibition	Adelaide, SA	www.appeaconference.com.au

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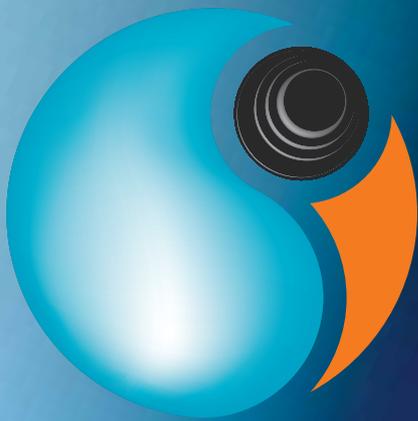
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APPEA 2012

CONFERENCE AND EXHIBITION

13–16 MAY 2012 ADELAIDE, SOUTH AUSTRALIA

CALL FOR PAPERS

APPEA and the conference program committee invites you to participate at the largest annual upstream oil and gas event in the southern hemisphere.

IMPORTANT DATES

23 September 2011

Deadline for submission of 250-word abstract—used to determine which papers are selected. Submissions should note if the publication will be a peer-reviewed paper or extended abstract and whether the presentation style will be oral or poster

9 December 2011

Deadline for receipt of draft peer-reviewed papers

9 December 2011

Deadline for material for abstract volume (finalised 250-word abstract, confirmed title, photo of the presenter)

2 March 2012

Deadline for extended abstracts

SUBMIT ABSTRACTS TO

Technical Program Committee
Coordinator online via
www.appeaconference.com.au

ENQUIRIES

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This premier conference highlights and defines the issues and challenges of upstream petroleum exploration and development. Opportunities are now open for current and topical material to be presented at this world-class event with papers sought from both technical and commercial areas.

This year, the technical program will include papers received by open invitation and a plenary program consisting of invited speakers. APPEA is pleased to offer two formats for final publication of the technical program—peer reviewed papers and extended abstract papers (maximum 1500 words and accompanying figures). Peer-reviewed papers will be published in the internationally acclaimed *APPEA Journal* whilst extended abstracts will be released in the *Conference Proceedings* DVD. Presentation of publications at the conference will be in either oral or poster format.

Paper proposals are evaluated in accordance with the following criteria:

- Submissions referring to case studies will be highly regarded by the Technical Program Committee.
- The paper proposal should contain significant new knowledge or experience in a relevant field.
- Data in the paper proposal must be technically correct and present the results of field experience.
- The substance of the proposed paper must not have been published previously in trade journals or other professional or technical journals.
- Prior to paper proposal submission, company and joint venture clearance must be obtained. Any perceived problems concerning clearance should be outlined when the paper proposal is submitted.
- The proposed paper may present information about equipment and tools to be used in exploration and production. Such paper proposals must show the definite applications and limitations of such equipment and should avoid undue commercialism and extensive use of trade names. Proposals that are deemed to represent commercial advertising material (advertorials) will not be considered.
- A 'no paper—no presentation' policy is used by APPEA. Authors who do not submit their manuscripts by the due date will be removed from the program and replaced by an alternate paper.

Subject areas to consider

- Australia in the world of petroleum
- International innovation/engineering innovation
- Corporate and global environment
- Safety, security and environmental performance
- Coal seam gas
- Geological concepts and integrated modelling
- LNG and floating LNG
- Unconventional resources such as shale/tight gas/hydrates
- Enabling technologies for exploration and production
- Appraisal: getting it right
- Oil and gas developments
- Gas supply and demand
- Significant milestones for Australian exploration and production
- Skills, education and training
- Indigenous employment initiatives
- Legal, corporate reporting and accounting developments/issues
- Taxation impacts associated with the extension of PRRT
- Economics and taxation
- Finance and finding issues
- Industry and the community
- Reserves assessment and reporting
- New and Joint venture and projects/developments
- Finance and corporate funding issues
- Assessments of the economic contribution of the industry

www.appeaconference.com.au