Offshore blocks on the table

AUSTRALIA’S Resources Minister Matt Canavan has launched the government’s annual offering of offshore exploration blocks in proven basins, with 20 permits made available on a work programme basis and one on a cash-bid basis.

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CONFERENCE PROGRAM Tuesday 16 May 2017

8:30am – 7:00pm Cycle Ride—Meet at main entry, Level 1 (opposite Adina Hotel)

7:30am – 5:00pm Conference registration—Central Foyer, Level 2

8:00am – 6:00pm APPEA 2017 Exhibition open—Exhibition Hall, Level 1

8:30am – 5:00pm APPEA 2017 Poster Presentations open—Exhibition Hall, Level 1

8:30am – 8:30pm KPMG Meeting Zone open—Exhibition Hall, Level 1

10:30am – 11:30am Panel discussion facilitated by Michael Schooler

12:30pm – 2:00pm Networking Lunch in the Exhibition Hall

Innovation and cost reductions have been the focus of the oil and gas industry in recent years, but how can these be achieved through technology and collaboration? We will hear from industry experts on the latest developments in technology and how they are impacting the industry.

* Program subject to change. Program correct as of 14 May 2017

**Sponsored by APPEA**

**APPEA Conference & Exhibition**

**Sponsored by Aggreko**

**Tuesday 16 May 2017**

**Concurrent Session 1: PESA—2016 in review**

**Sponsored by PESA**

Chair: Dr Steve McIvor, Federal President, PESA

Australian Exploration Review 2016

Dr Graham Salmond, General Manager Australia, BHP Billiton Petroleum

Production and development across Australia 2016

Dr Steve McIvor, PESA’s 15 years—the rise and rise of technology

**Concurrent Session 2: Process safety**

**Sponsored by DuPont**

Chair: Prof Andrew Wilson, Principal Consultant, DuPont

Integrity inspection planning updated with cost of risk

Mr Andrew Wilson, Principal Consultant, DuPont

Innovative inspection techniques for Ultra Deep Water Drill strings and other Rotating O&G production assets saving costs, enhancing safety, while ensuring operational availability and asset integrity

P Devon and C Danowski (Suncor Energy Group)

Process safety management at Woodside—creating a sustainable global approach

R Doyle (Woodside)

**Concurrent Session 3: Geoscience technology**

**Sponsored by Chevron**

Chair: Mr Denis O’Keefe, Head of Division, Resources, DE

Baselines and baseline characterisation: ensuring the future is here

M Bibby, D Knowles, C Consoli, A Zapantis* (GCCSI), P Grubnic and L Irlam (Global Carbon Capture and Storage Institute)

Challenges of reclaimed acid mine drainage management

C Tucker (DNRM)

**Concurrent Session 4: Research innovation**

**Sponsored by Aggreko**

Chair: Dr Steve McIvor, Federal President, PESA

Ultra-deep Permian coal gas reservoirs of the Cooper Basin: insights from new studies

Mr Peter Metcalfe, Director, Upstream External Affairs, Woodside

Gauging the confidence in publicly reported oil and gas reserves: introducing the Reserves Confidence Metric (RCM)

Ms Deidre Brooks, Manager Energy Geoscience, Santos

**Concurrent Session 5: 10 years of CO2 storage and operations**

**Sponsored by Woodside**

Chair: R Doyle (Woodside)

10 years of CO2 storage and operations

R Doyle (Woodside)

The future is not what us it is: oil and gas strategies for a carbon-conscious world

C Cullinan (Woodside)
Queensland set for new land release

The Annastacia Palaszczuk-led Queensland state government will soon release another 395 square kilometres of land for gas development to supply to the hungry east coast Australian market.

State Natural Resources & Mines Minister Dr Anthony Lynham told yesterday’s Australian Petroleum Production & Exploration Association (APPEA) annual convention in Perth that two new parcels of lands totalling 395 square kilometres in the Surat basin would be released in the next two months.

Any gas produced will only be able to be sold in Australia. This comes on top of the 58 square kilometres the government released in February.

“This initiative shows again that Queensland is ahead of the pack on gas supply policy action,” Dr Lynham said. “We had a positive response from industry to the first pilot release of land in February and it’s clear there’s an appetite in the market to develop Queensland’s gas reserves.

“Releasing more land will drive employment and investment in regional Queensland and eventually add to the gas currently available for domestic use.”

The Palaszczuk government has already put 58 square kilometres of land to tender, to be awarded by July; has a Gas Action Plan under way and commenced work with small to medium gas explorers on opportunities to progress to production.

Dr Lynham told APPEA members he would continue to seek funds from Malcolm Turnbull’s federal government for a gas pipeline to open up the Galilee and Bowen basins.

“New pipelines will help open up new potential gas producing areas like the Galilee and Bowen basins and connect with major east coast energy users in centres like Townsville,” he said.

The new tenders should be awarded before the end of the year.

Successful tenders will be required to complete environmental and other requirements before any land tenure can be granted, including negotiating land access agreements with landowners and native title parties.
Capital investment in the upstream sector has declined by some US$700 billion (A$947 billion) in the past two years, but with rigs moving back into the field in the US with oil at US$50 per barrel, hopes are high that capital will be attracted to exploration and investment plays in Australia and New Zealand.

The Petroleum Exploration Society of Australia (PESA) conducted a pitch day as part of the annual APPEA conference on Mother’s Day. Successful oil and gas producing nations generally feature a robust, successful and dynamic junior oil and gas industry, and Australia is no different.

What are the key take aways from the pitch event, which featured two dozen presentations from some of the most prospective opportunities in the region?

First, the abundance of opportunity is certainly reflective of the paucity of capital for the past three years. Of the plays on offer, most included three or four possible investment targets, and time limits constricted presentation time to detail just one play each. By count, some 80 possible investments stand ready to take on board investors. Other companies have expressed some regret at not getting applications ready on time, and missing this important opportunity.

Second, opportunities on offer covered a vast range of reservoirs, basin types, conventional and unconventional opportunities, onshore and offshore. Plays seek investment partners in drilling campaigns, data acquisition and data purchase. In the main, funding requirements were relatively modest, perhaps up to A$25 million, most considerably less.

Third, the risk reward trade-offs should find appeal within the investor community. High risk plays, where resources are under delineated, and available seismic dates back to the 1960’s, should appeal to the investor with a risk orientation to purer exploration. Other plays are looking for more straightforward farm-in investors into well proven basins with access to infrastructure.

Fourth, it’s clear that Australia and New Zealand still offer very significant investment plays in what is still very much an under explored set of basins. International investors do consider this part of the world to be a solid mix of frontier and proven basins, but it is still striking how, even in the Cooper basin, there are still large blocks that have not been studied in some decades.

Fifth, there’s a marked distinction in the depth of understanding between those areas that have been mapped with 2D versus 3D seismic. Newer seismic data capture technologies and the interpretation of these sophisticated datasets significantly de-risk investment opportunities. Unfortunately in most of the presentations, 2D seismic availability outweighs 3D by a factor of 10 or greater.

Sixth, investors interested in any global opportunities were treated to a quick review of investments available in a number of global precincts, including Gabon, Ghana, the UK and Kazakhstan. Australia’s juniors clearly see tremendous opportunity in indigenous areas with little need or interest to go farther afield to Africa and Asia. Opportunities in Cuba curiously attracted much attention as the country is on the prolific Gulf of Mexico, has suffered from decades of underinvestment driven by US sanctions, and benefit from very low cost structures, lower even than the light tight oil and gas plays in the US.

Finally, while the presenters were careful to refrain from exaggeration of the possible upside from the plays, several estimates of possible resources touched 1 billion barrels of oil in place. Australian investors in oil and gas can shoot for the moon or even the stars.

Join in the #APPEA2017 conversation! For all the latest insights and updates, including the APPEA Daily Digest, follow @APPEACONFERENCE on Twitter and APPEA on LinkedIn.
In the picture...
Energy Strategy

Chairman’s warning over policy failures

Industry ‘still on crest of a wave’ but there are challenges ahead, says Lake

Australias oil and gas industry is still riding on the crest of a wave despite the past 12 months being challenging and marked by “subdued commodity prices”, according to APPEA chairman Bruce Lake. However, there are challenges ahead.

“We see it as approaching a tipping point... accumulated policy failures are weighing us down.”

These policies that add unnecessarily to costs, restrict access to resources and create sovereign risk are eroding Australia’s key competitive advantage — a stable operating environment, he said.

In response, APPEA has been advocating long-term policies to protect a sustainable operating environment for the industry with a focus on three overlapping themes: access to resources, competitiveness and industry reputation.

Access to resources has to be the starting point for any extractive industry.

“The obvious challenge occurs onshore, where projects must co-exist with traditional rural industries. But offshore developments are also being targeted.”

“Offshore operators recognise the risks for their projects. Through APPEA, members are finalising a best practice methodology for community engagement for offshore projects,” said Lake.

He acknowledged that it is no easy task to strike the right balance between risk management and community engagement however APPEA would soon pass its methodology to Nopsema for public release.

Meanwhile, the association is “alarmed” by the slow progress of policy reform to support exploration.

“While it is natural that current market conditions have depressed exploration, we have gone beyond a normal cyclical adjustment to a 30-year low.”

“A steady escalation of regulatory costs and risks, compounded by investment drying up, has led to an unsustainable situation.”

“The Commonwealth’s offshore resource management review should be a positive step towards more flexible regulation,” he said.

Yet the mooted COAG review of retention leases risks creating more uncertainty in an already difficult environment, cautioned Lake.

“Again, there is the potential for sovereign risk if costly investments in exploration are lost because of unexpected policy changes.”

He noted that Australia had boosted production to new records with output on the east coast trebling over five years, with west coast production increasing by almost 50% over the same timeframe. “After two tough years, the industry has adjusted to a sub-$50 oil price, emerging leaner and more competitive.”

“We all know how painful this adjustment has been, but our businesses are stronger today. And we will need to be. While the global demand for our products continues to grow, so does our competition,” said Lake.

He told delegates at the opening plenary session at this year’s APPEA conference and exhibition that Australia has succeeded as a high-cost, low-risk country. However, Australia would fail if it becomes a high-cost, high-risk country.

Lake explained that, as the national industry association, it is the purpose and duty of APPEA to speak on behalf of the entire industry on current big policy matters.

“We do not take this responsibility lightly — our positions are developed through member-led policy committees and endorsed by the board.”

Fears over tax change fall-out

Australia’s upstream industry is exposed to the prospect of “destructive tax changes” that would particularly affect new projects, says APPEA chairman Bruce Lake.

He told delegates at APPEA 2017 in Perth that as the association’s members assess backfill projects to sustain existing facilities, there is a risk that tax changes may make projects marginal in the global competition for capital.

“The first test could be the Barosa project for Darwin LNG.”

“APPEA will continue to assert the need for a stable tax regime which minimises the upfront barriers to investment as the best way to maximise the return to the community, over the life of projects.”

He said that another significant issue jeopardising the competitiveness of the Australian industry is the introduction of export controls for liquefied natural gas, calling the Australian Domestic Gas Supply Mechanism recently announced by the Commonwealth “an unprecedented intervention.”

“While average gas prices on [Australia’s] east coast are, according to the International Gas Union, lower than prices in Japan, Korea and other Asian country, new contract prices are clearly rising.”

“APPEA has been warning, for years, that stifling new gas supply will have consequences for local customers as well as our export trade. These warnings have been ignored by states which have preferred to free-ride on interstate gas producers.”

“It is startling that our two largest states have virtually no local gas production – and in the case of Victoria has banned onshore developments,” said Lake.

He added that the industry association condemns export controls for damaging Australia’s international reputation as a low-risk destination for investors.

“At a time when we may require as much as A$50 billion (US$37 billion) to fund upstream developments in eastern Australia, it is counter-productive to create sovereign risk.

“APPEA has insisted that only genuine policy reforms to open up new acreage, strip out unnecessary regulatory costs and improve the transparency of the market will deliver a sustainable solution.”

He added that among the most important issues affecting Australia’s competitiveness is the national climate change policy.

“2017 will see the release of the Commonwealth’s review of climate change policy and the Finkel report. We will have to see whether these reports mark a turning point or a dead end in the climate debate.”

APPEA, for its part, has updated its climate change policy principles and Lake encouraged everyone in the industry to consider its position.

“We have confirmed our support for a national climate change policy that achieves national and international targets at least cost. The policy should facilitate investment decisions consistent with an international price on carbon and have appropriate safeguards for trade-exposed industries.”
EXPLORATION

Offshore blocks offer puts 21 on the table
Resources Minister Canavan urges companies to consider areas off the east coast

RUSSELL SEARANCKE
Perth

The Australian government has launched its annual offering of offshore exploration blocks in proven basins with 20 permits made available on a work programme basis and one on a cash-bid basis.

Ten of the permits are located off Western Australia, two are off the Northern Territory, two are off Tasmania, three off Victoria and four are located in the Ashmore and Cartier Islands area of the Timor Sea.

The blocks are located in water depths ranging from 25 metres to 4200 metres and vary in size from 161 square kilometres to 2465 square kilometres and vary in the level of existing geological knowledge.

All areas are supported by pre-competitive geological and geophysical data and analysis carried out by Geoscience Australia.

Speaking at the APPEA Conference in Perth, Australian Resources Minister Matt Canavan said he hoped companies would take a close look at the blocks available on Australia’s east coast, which is currently facing a potential supply shortage.

“The government wants to ensure that industry is ready for the eventual strengthening of the oil price, hopefully, by implementing policy reforms ensuring new exploration will continue to meet Australia’s future energy security needs,” he said.

“The release includes five areas close to existing infrastructure off Victoria and Tasmania, and I hope prospective bidders will carefully consider these areas in the context of supporting Australia’s east coast gas markets.”

The five east coast blocks are all in shallow water. They are T17-1 and T17-2 in the Bass basin of Tasmania, V17-1 in the Gippsland basin of Victoria, plus V17-2 and V17-3 in Victoria’s Otway basin.

The 21 blocks are being offered in two tranches — bids for the first set of 11 permits are due on 19 October 2017, bids for the second tranche of nine blocks are due on 22 March 2018. On 19 October 2017, bids also close for four blocks that did not receive any bids in round two of the 2016 offer.

The cash-bid permit W17-6 is located off Western Australia near the Woodside oilfield and Breindeer gas field, with an auction for pre-qualified companies earmarked for 22 March 2018.

The government introduced the cash-bidding system in 2014 for exploration permits in mature areas or areas known to contain petroleum accumulations, but no bids were received in the 2014 or 2015 auctions.

Chevron was awarded Australia’s first-ever cash bid exploration permit as part of the 2016 Blocks Offer. The US operator agreed to pay $83 million to secure the rights to Block WA-526-P near its Gorgon infrastructure for six years, unlike the regular offshore exploration blocks, there is no specific work programme in cash-bid permits.

Support: Australia’s resource minister Matt Canavan

Photo: RAY CASH/IAIN ANDERSON/APPEA

Think local says McGowan

WEST Australian Premier Mark McGowan has called on industry to think locally as his recently-elected government looks to tackle the state’s economic woes.

Western Australia has the second-highest unemployment rate in the country at 6.5% along with the worst levels of debt and the highest deficit of any state or territory.

Speaking at the APPEA conference in Perth on Monday, McGowan said the West Australian community had historically been supportive of the oil and gas industry, and this support needed to continue to be nurtured through local jobs and apprenticeships.

“If you always keep that in mind, you will have a ready band of supporters in the West Australian community,” McGowan said.

“Make sure that in those communities in which you operate... the young people graduating from high school have those opportunities of apprenticeships in the industry.”

McGowan also highlighted local content as “a huge issue” in Western Australia and called for companies to keep this in mind.

“The stories I hear of jobs going over east or overseas are continuous... it causes hostility and resentment, not just amongst the workforce but also amongst the business community in Western Australia,” he said.

“Always think what can we do when it comes to local content, because that is an important part of social licence to operate in Western Australia.”

McGowan also confirmed the government was doing its bit to help tackle the slumping economy and boost investment in the state.

His government is looking to reduce red tape, with the number of government departments reduced by about 40%, from 41 to just 25, since McGowan was elected in March.

In terms of benefits for the oil and gas industry he said this meant there would be fewer approval and development agencies to deal with.

“Bigger, stronger government departments, more focused and more collaborative, removing red tape are things that we are determined to follow through on to ensure that we see more opportunities jobs and investment,” he said.

McGowan also said the government’s decision not to back calls for a new mining tax on the state’s iron ore industry during the recent election would also help boost confidence.

He said the reason he did not support the tax, despite the fact it could have raised A$7 billion ($US5.2 billion), was because it would have created a sovereign risk to the nation.

“To rip up existing state agreement acts unilaterally on the part of government, and to therefore jeopardise investment and opportunity in our state, is wrong,” he said.

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Modec sees green shoots of recovery

Japanese floater builder has steered a steady course through the industry downturn and now senses the time is coming for fresh investments

Modec chief executive Toshiro Miyazaki is cautiously optimistic that the upstream sector is nearing the end of the cash-crunch that has held back major investments in the offshore arena, particularly deep water, in recent years.

"With oil prices starting to recover, companies are thinking that they need to make new investments," the head of the Japanese floating production contractor tells Upstream.

"It's about time this should start and we are seeing signs of this (revival).

"We feel that there might be new projects coming up. Looking at statistics and data from research companies we believe there might be some orders placed in 2017 and 2018."

Miyazaki did not identify Modec's target projects, saying only:

"We are narrowing down (what) we want to pursue."

However, in an analyst presentation two months ago, the company identified 27 potential projects — seven in its key Brazilian market, six in South-East Asia, five in West Africa, three in the Gulf of Mexico, two each in India and Australia, and one each in East Africa and Guyana.

Citing data from Fearnley Offshore, Modec's February presentation also suggested seven lease contracts for floating production, storage and offloading vessels could be awarded in both 2017 and 2018, rising to eight in 2019 with one engineering, procurement and construction contract likely to be placed in 2018 followed by two in 2019.

On Modec's books at the moment is an EPC contract for an FPSO due for delivery in 2018 to Maersk Oil for the Culzean project in UK waters. In the second half of this year, it will deliver an eleventh FPSO — the Cidade de Campos dos Goytacazes — to Brazil for deployment on Petrobras' Tartaruga Verde field under a fixed 20-year time charter.

It is also set to complete in mid-2017 an engineering, procurement, construction management and commissioning contract covering the hull of Hess' Stampede tension-leg platform in the US Gulf of Mexico.

**Favourable results**

Despite the industry downturn being "a challenging situation" for the Japanese floater specialist, Miyazaki says: "We were able to finish existing projects very smoothly and, because of that, over the last two years, our operating profit and net income were favourable."

Modec, which closes its financial year on 31 December, saw its operating profit rise from 5 billion yen (A$59.4 million) in 2015 to 18 billion yen in 2016 — a company record — while net income surged from 5.4 billion yen to 19.6 billion yen over the same period.

This profit increase came despite the Tokyo-based player reporting a drop in revenues from a peak of 378.5 billion yen in 2014 to 295.5 billion yen in 2015, dropping further to 229.9 billion yen last year.

For 2017, Modec’s management predicts that operating profit will edge down slightly to 15 billion yen on lower revenues of 190 billion yen.

Miyazaki says that during the downturn, an important focus for Modec has been to ensure client satisfaction with its services and maintain uptime on FPSOs at a high level.

Modec addressed engineering, procurement, construction, operating and maintenance costs but did not reduce staffing levels.

Miyazaki says he received some client requests to review dayrates, but these were withdrawn because any reduction "would have gone against the terms of covenants" related to Modec’s project finance arrangements.

Securing finance is a big factor among competitors in the FPSO market, with Miyazaki confident his company's backers remain supportive despite the current market conditions.

"We are very fortunate in that we receive support from state-owned Japan Bank for International Cooperation (JIBC) and trading companies including Mitsui, Marubeni and Mitsui O&K Lines," he says.

He admits these lenders' risk assessments "are very strict and therefore very challenging", pointing out that JIBC in particu-
Company keen to generate business

WITH its finances in a healthy position, Modec has been busy preparing for the industry upturn by, among other things, developing a new product stream to address the global challenges of power and water provision based on clean fuels, writes lain Evans.

"In many countries there are shortages of power and clean water," says Modec chief executive Toshiro Miyazaki. "We want to (address this problem) by developing and providing a facility that can generate power and clean water by using natural gas."

In essence, Modec wants to add water treatment and power generation facilities to floating storage and regasification units in order to provide fresh water and power to coastal regions. According to Miyazaki, initial market interest in these water and power solutions is promising.

"We have just started sales promotions and we are already getting a good response from areas such as Latin America, Africa and South-East Asia," he says.

While converting this interest into an actual project may take two to three years, Miyazaki is confident that once the first order is placed, more will follow.

"What is important in this business is a track record, so once we get a project we will be getting interest from other areas as well," he says.

Another niche market of growing interest to Modec is floating liquefied natural gas, although, like many industry observers, Miyazaki believes that the days of large FLNG projects, such as Shell’s Prelude in Australia, are numbered.

"We believe the market needs small and mid-sized FLNG vessels and not large ones like Prelude," he says.

Modec has developed its own FLNG proposal — its ship-shaped Libro concept — for vessels ranging in capacity from 1 million to 2 million tonnes of LNG per annum.

Sales activities began five years ago but the Japanese player has had no success yet because broad industry acceptance of FLNG as a viable development solution has been slow, partly due to perceived technical risks but also because of costs and general market conditions.

"Gas prices are currently low so there are not many FLNG projects," says Miyazaki, but he expects the number of floating liquefaction schemes "to increase significantly going forward."

Modec is also developing a generic hull design that could be common to 80% of fields.

What is important in this business is a track record, so once we get a project we will be getting interest from other areas as well.

Modec chief executive Toshiro Miyazaki

Powering up an added use for floaters

MODEC’S floating storage regasification water and power concept is based on meeting the energy and freshwater needs of the world’s burgeoning coastal communities, writes Juan Evans.

Building on its experience with producing power and clean water on its fleet of floating production, storage and offloading vessels, Modec has come up with a variety of vessel designs that aim to meet short-term or long-term demand.

The FS RWP would use liquefied natural gas as feedstock for on-board power plants and desalination plants, with Modec claiming these units could be in operation just 18 to 24 months after contract award.

Temporary power solutions could be provided within two to three months. Hulls could be converted tankers or newbuild barges and they could be installed in a variety of water depths.

Marinised aero-derivative and industrial gas turbines will be used to provide power — up to 1000 megawatts is possible. The vessels could also include a high-voltage sub-station with an option to export gas, jet fuel or liquid petroleum gas to shore.

There is also an option for power transmission through weather-vaning 200 MW electrical slip rings.

Reverse osmosis technology would be used to produce clean water at rates up to 380,000 cubic metres per day.

Water would be sourced offshore with the resulting brine disposed of in deep waters.

Water could be used for human consumption or for water flooding.

If power and water equipment is needed on the same vessel, flash evaporation technology could be deployed for desalination.

Modec is offering three contracting options — an independent power producer; build, own, operate and transfer; and engineering, procurement, construction and installation.
Co-operation key says Coleman

Woodside chief executive sounds warning over producers ‘being seen to be creating problems rather than solving them’

AUSTRALIA’s oil and gas industry will lose out if gas is no longer seen as a reliable and available energy source, if producers are seen to be creating problems for the community rather than solving them, according to Woodside chief executive Peter Coleman.

“It should be a time of opportunity for gas, as energy markets search for reliable supplies of low emissions energy.

“It should be a time for gas to shore up its position in Australia’s energy mix. It should be a time for Australia to celebrate its abundant energy sources, according to Coleman.

“Exploration is already in dire straits. We should all be concerned if it becomes even harder for small- to mid-cap explorers to attract backing.

“There must be explorers and seismic companies questioning whether there’s a future for them in the Australian industry.

“Perhaps it’s time for the industry to consider that the future might look pretty grim without them,” warned Coleman.

“In many ways, it is the junior explorers who are more likely to take the risks that might lead to the discoveries that will be crucial if we want to grow Australia’s gas production.

“Exploration onshore is largely off-limits at the moment due to state government bans and that’s particularly problematic for smaller explorers, who may not have the resources for offshore exploration.

“Offshore exploration has been in decline for years, even when commodity prices were strong. Unless, we, as an industry, throw our support behind changes to reinvigorate exploration activities, we face a long-term decline in production,” said Coleman.

Challenges, especially for smaller companies, include regulatory and commercial frameworks.

“Fiscal measures could help in this regard. Another way the federal government could help unlock stranded reserves and stimulate exploration is by providing rollover relief in targeted circumstances for swaps involving both upstream and downstream assets.

“It would allow projects that have not reached a final investment decision on a standalone basis to be aggregated into more economic prospects,” he said.

Coleman added that now is the time for industry to unite and define its common purpose, mindful of the need to explain to the community how they benefit from our activities.

“We need to convey to the community that we understand they own the resources.

“As resource developers, we commit to being responsible stewards of the environment. But over and above this, we have a responsibility to make a contribution to energy security, as well as a social contribution and an economic contribution, including through creation of jobs and payment of taxes,” he said.

He noted that the exploration and drilling bans in parts of Australia are symptomatic of “a trust deficit” that has emerged between the oil and gas industry and the broader community.

“The imbalance between exports and domestic gas has made this situation worse.

“It is clear we need to consider how we can regain the trust of the public.

“If we are to get onshore development back on track, we should think about whether a first step might be for APPEA to consult and agree on a code of conduct for land access and use that recognises and assuages landowners’ concerns.

“We need to commit to a clear set of principles and processes to enable us to work with landowners and affected communities. Similar codes exist elsewhere in the world,” he added.

“Australia also faces challenges with exploiting its deep-water resources. According to Coleman, “We could look to the Gulf of Mexico, where seismic data was made more readily available and royalty relief was offered for deep exploration. “Significantly, templates were agreed for negotiating third-party access to pipelines, reducing the time it takes to reach agreement on the use of infrastructure.”

He noted that, currently, the cost of building new infrastructure, like ports and transmission pipelines, could be a barrier to exploration and development of resources.

“As an industry, we have built a lot of infrastructure in recent years. We need to think about how we can maximise its value while enabling the development of new resources.

“It is important that industry works together, and that existing infrastructure owners co-operate with other players if they request access to infrastructure as they look for a path to discover and commercialise resources.

“Indeed, we could begin a conversation about what principles should apply to accessing plants, pipelines and transport infrastructure, bearing in mind that the investors must be able to recoup their costs.

“We need to co-operate, and we need to innovate,” Coleman told delegates at the plenary conference session.
Call for greater incentives for landowners

AUSTRALIA’S Resources Minister Matt Canavan has called for landowners to receive greater incentives in return for access to their land for oil and gas production.

Speaking at the APPEA conference in Perth yesterday, Canavan said it was important, from his perspective, that landowners share in the wealth they help generate.

“They might not own the resource under their land but they certainly own the soil and the gates that you drive through and they deserve to make a return, not just compensation,” he told delegates.

In order to drive home that he believed just compensating landowners was not enough, he used the example of the current review of Australia’s Petroleum Resource Rent Tax (PRRT).

“If I came to you with a response to the PRRT review and said we’ll compensate you for what you’ve spent, you won’t be out of pocket, but we are not going to let you make a return from the profit I probably would have some pies coming towards me today,” he said.

Canavan backed a recent plan by the South Australian government for landowners to be given 10% of state royalties generated from gas wells on their properties.

He claimed that if more landowners around the country were allowed to share in the wealth generated by gas production there would be farmers “jumping out of their skins to have gas wells on their property.”

“While they don’t see a return... they are not going to be jumping out of their skins,” he said.

“They will pick up their pitchforks, they’ll pick up their signs, they’ll join with the Greens and the people in the Koala suits and oppose the development of gas in their country and that will be to the detriment of our industry in the long-term.”
SUSTAINABLE ENERGY

Carbon capture ‘is key to future development’

Shell’s Bentham says CCS, more electricity and a carbon pricing system is the way forward

BRIAN DONAGHY

Perth

IT IS possible to have a better life for everybody, with a healthy planet, but it will mean carbon capture and storage, greater use of electricity, and some system of carbon pricing, one of Shell’s top executives told the conference yesterday.

Jeremy Bentham, Vice President Global Business Environment and Head of Shell Scenarios for Royal Dutch Shell, said energy was at the heart of sustainable development. “Being everyone in the world up to a decent standard of living would involve doubling the amount of energy consumed per head of the population to 100 gigajoules per annum, he said. But he assured delegates: “The work I am involved in (shows) that it is possible to have a better standard of living for everybody, with a healthy planet.”

In Australia, energy consumption per head is more than 200 gigajoules per annum — the equivalent of every man woman and child in the country having 200 full-time servants working for them.

“That is a quality of life that would have been available to only a few aristocrats a few centuries ago,” he said.

Over the century you are going to see a much bigger electricity system globally, up from 18% to 20% today to 50% to 60%”, he said. This compared with around 20% today.

Decarbonising the built environment would be relatively straightforward as long as we could decarbonise the power sector, Bentham said.

But the results would be patchy — areas in the world had lots of solar and wind, with some gas or nuclear, but other parts of the world had challenges such as land availability.

It would be important to look at social structures such as urban development patterns. Having compact cities with good public transport made a big difference.

There would still be sectors that needed energy-dense, portable energy, such as heavy industry, marine and aviation transport. But there were also land use opportunities to create negative emissions.

In Australia, increasing the energy efficiency of the transport industry was the biggest opportunity out to 2035, he said.

But it was going to be very hard to decarbonise industries which needed very high temperatures, such as iron and steel, cement and some chemical processes, he said.

“That is why carbon capture and storage is going to be extremely significant in the world,” he said.

Transition to zero emissions would require funding to support the areas that were more difficult to decarbonise. It would require “joined-up policy — you cannot have isolation government.”

There would be growth in some areas, shrinkage in others, and these would need to be managed.

Quoting Shakespeare, Bentham added: “There is a tide in the affairs of man, which, if taken at the flood, will lead on to fortune. I think we are at such a time.”

In response to questions, he assured delegates that he believed the gas industry would continue to grow for decades to come.

Industry ‘needs to catch up with digitisation’

THE oil and gas industry needed to catch up with digitisation, delegates were told yesterday.

“The technology is out there. It is not about creating new ideas, it is about taking ideas from other areas,” Thomas Sparks, vice president Oil and Gas Strategy for Siemens, said.

Digitisation could lower capital expenditure, increase production and even cashflow.

As an example, he cited a case where digitisation had made it possible to have 17 fewer people employed on a Norwegian offshore platform.

The work was transferred to a remote monitoring centre 1000 kilometres away in Trondheim. As it could cost around US$1 million ($A1.3 million) a year to keep a person offshore, that was not only a significant saving but it also transferred those people away from the hazardous offshore environment.

While there was a lot of digitisation in exploration, the industry generally is not as far advanced as other industries such as auto manufacture or telecommunications.

Digitisation meant working more collaboratively, from the initial planning and design all the way through to production and maintenance, generating data to create a single source of truth, he said.

That meant that companies had to have systems for sharing the information generated, making it accessible not only across company divisions but in some cases also sharing data with outside equipment manufacturers and service providers.

He urged companies to collaborate with universities and to recruit “younger kids, more geeks — I can tell you, these young guys are a great asset.”

Speaking to journalists at a press conference later, he said it was also important to have a huge partner network.

“You need to design your information needs and get the data into one place and make it accessible to everyone involved in a project”.

Carbon key: Jeremy Bentham, Vice President Global Business Environment and Head of Shell Scenarios for Royal Dutch Shell

Photo: RAY CASH/ IAIN ANDERSON/APPEA

Australia’s clean bill on safety

FOR the first time since the Australian government’s safety and environmental regulator was established for the offshore oil and gas industry in 2005, there were no deaths or serious accidents reported in 2016.

However, in the same period, there was a 28% increase in the total number of hydrocarbon releases.

These results came against the background of a 38% drop in the total number of offshore hours worked.

The figures come from the latest annual report of the National Offshore Petroleum Safety and Environmental Management Authority (Nopsema), released yesterday.

Nopsema noted that the majority of the hydrocarbon releases involved 300 kilogrammes or less, but added that “any uncontrolled hydrocarbon release warrants attention due to the risk of ignition and the potential widespread damage and associated threat to lives they could cause”.

Design was the top root cause identified by operators for hydrocarbon releases in 2016, followed by preventative maintenance and procedures.

However, the number of dangerous occurrences reported fell by 17% with the majority relating to unplanned events.

During the year, the regulator carried out additional focused inspections regarding oil spill management.

“The results of the inspections were encouraging.

“Areas for improvement were also identified that are applicable to all stakeholders operating in Australian waters,” Nopsema said.

It said it saw “scope for the industry to continue expanding” its co-operative approaches to oil spill risk.

Nopsema acknowledged that exploration proposals for the Great Australian Bight had prompted environmental campaigns, increased media scrutiny and parliamentary inquiries.

These “reflected changing community expectations for consultation, engagement and transparency by the industry”, the regulator said.

These changing expectations placed an onus on the regulator and industry to respond with actions that ensure maintenance of our social license to operate,” the regulator said.

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Tuesday 16 May 2017
Indonesia to offer new exploration acreage

Country to launch oil and gas licensing round this week, with blocks covering both conventional and unconventional resources

AMANDA BATTERSBY
Perth

INDONESIA is set to formally launch its first oil and gas licensing round of the year on Wednesday, with the exercise including both conventional and unconventional acreage, according to a Ministry of Energy & Mineral Resources official.

The touted conventional blocks include offshore and onshore tracts with three to be made available by regular tender and a further seven up for direct bidding. Also up for grabs will be three coalbed methane blocks and two shale gas blocks.

The regular tender conventional blocks are Durian (Riau), East Tanjungpinang (Maluku) and Memberamo (Papua), while those offered by direct tender are Andaman I and II, South Tuna, Merak, Pekawai, West Yamdena and Kasuri III.

The three CBM blocks — all in Sumatra Selatan (South Sumatra) — are Raja, Bungamas and West Air Komeriting.

The shale gas tracts, both in Jambi province, are Jambi I and II.

The official cautioned that the blocks remain tentative until the formal launch that is intended to be unveiled at this year’s Indonesian Petroleum Association convention in Jakarta.

The ministry’s Directorate General of Oil & Gas noted that the new production sharing contracts for Indonesia’s oil and gas upstream would be based on the ‘gross split’ model where operational cost recovery is no longer applied. The base split under this contractual model is government 57% and contractor 43% however there are some 12 components that affect this split.

Ten of these components, including whether it is onshore or offshore, the depth of the reservoir, carbon dioxide content and local content, are deemed variable splits.

There are also two progressive splits considered — the oil price and cumulative production.

As of 10 February this year Indonesia had a total of 279 working areas for upstream oil and gas operations. A total of 194 of these are in the exploration phase, while 85 are in the exploitation phase.

Of these 85 blocks, 71 are already in production and the remaining 14 are under development.

The official told Upstream that the above details constituted a “sneaky peak” at what is due to be launched on Wednesday.

Details of the exact acreage being offered plus dates for the submission of bids and other relevant information would be posted on the ministry’s website later in the week.

Muruk sidetrack delivers

EXXONMOBIL and partners have completed a third sidetrack on the Muruk gas discovery in Papua New Guinea confirming “a potentially significant new gas field”.

Well logs and pressure data confirmed the entire Toro reservoir section is gas saturated, said partners Oil Search and Santos.

The third sidetrack penetrated the top Toro at 3968 metres and was drilled to a depth of 4025 metres.

Two cece were cut and the well was deepened to 4150 metres to enable a full suite of logs and pressure data to be acquired. No gas-water contact was hit.

Production tests will be done to assess the deliverability and potential flow rates from the Toro.

“The Muruk drilling programme has successfully discovered a potentially significant new gas field, 21 kilomtres north-west of the Hides facilities and immediately north of the Juha gas field,” said Oil Search.

The data from the Muruk campaign will be evaluated to assist in designing a potential appraisal programme in 2018.

The Muruk partners are ExxonMobil on 42.5%, Oil Search on 35.5% and Santos on 20%.

UMW wins jack-up jobs

MALAYSIA’S UMW Oil & Gas has won two contracts worth a combined US$34.8 million ($46.9 million) for two of its jack-up rigs to drill for national upstream company Petronas Carigali.

UMW will lease its UMW Naga 3 for a firm five-well contract, due to start next month, which comes with five one-well options.

UMW Naga 3 is an independent-leg cantilever jack-up unit that has a drilling depth capability of 30,000 feet and is rated for operations in water depths of up to 350 feet.

The contractor will also deploy the jack-up UMA Naga 4 for a separate firm two-well contract with Petronas Carigali.

This charter, which is also due to start in June, comes with three optional wells.

UMW Naga 4 has a drilling depth capability of 30,000 feet and has a rated operating water depth of 60 feet.

Kuala Lumpur-listed UMW earlier this month sold for almost $1.7 million its 50% stake in the semi-submersible rig Naga-1 to Japan Drilling Company. In the current oil price environment, the disposal is aligned with the company’s strategy to reduce exposures from high maintenance costs and capital expenditure of Naga-1, UMW said at the time.
Shenandoah shudders to halt

Stop-work order as project shelved for foreseeable future as Anadarko ‘evaluates the path forward’

LUKE JOHNSON
Houston

Anadarko now includes the design phase of a semi-submersible production facility for Anadarko Petroleum’s Shenandoah field in the deep-water US Gulf of Mexico have been told to stop work on the project, delivering a hefty blow to a region desperate for work.

Multiple industry sources said the Shenandoah project has been shelved for the foreseeable future.

The stop-work order came within the last two weeks, sources said.

“Shenandoah is shut down,” said one source last week.

“Anadarko pulled the pin,” said another. “It’s a dead project,” said a third.

The decision not to move ahead with the development at this time follows news earlier this month that the latest appraisal well, Shenandoah-6, failed to find the eastern flank of the reservoir. A sidetrack oil-water contact on the eastern Shenandoah-6, failed to find the source now stands at between 200 million and 300 million barrels of recoverable resource, said this week that Shenandoah in the pipeline, contractors will likely need to position themselves for new opportunities, even as the number of future deep-water development projects in the US Gulf continues to shrink.

Industry observers were split on the ultimate factor in Anadarko’s decision to stop work on Shenandoah, over and above the recent appraisal disappointment.

Many blamed the complexity of the Lower Tertiary reservoir, where pressures can exceed 20,000 psi and producibility is a challenge.

“They technology is lagging facilities, so they shut it down,” one source said.

Other sources said the blame falls squarely on the current pricing environment and on the four- to five-year cycle time before Anadarko would see a return on its multi-billion-dollar investment in a newbuild semi-sub.

The realities of deep-water mega-projects make them hard to compete in a portfolio stuffed with relatively low-cost shale and deep-water tieback opportunities, such as Anadarko’s.

“It’s purely a matter of what makes the most sense for deploying capital in today’s market,” said one source. “There’s so much runway left before you start seeing any kind of return.”
With budget restrictions and cost cutting featuring prominently on the business agenda it’s easy to do away with the ‘non-essentials’. Some say paid-for industry publications fall into this category. It's easy to say no. But is it wise?

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It is not every day that you get to ride in the sun with a Commonwealth Games’ silver medallist and 2011 world track champion. On Sunday, the great majority of APPEA’s cyclists missed out on that opportunity when the annual APPEA bike ride was led by Michael Freiberg.

Including a strong contingent from the sponsors, Intertek, fewer than 20 riders donned the lycra for the spin to Fremantle and back. There is always a risk that a ride like this could become more than a little ragged. The organisers just have to keep their fingers crossed at the start.

They know that they will find out in the first five kilometres if any of their riders are a tad short on thigh muscles.

On Sunday, none of them was, and Freiberg was suitably impressed. Not that this is a race, as the ride director Bill Hayes stressed in his initial briefing.

And indeed there were “pit stops” almost every half hour for the riders to fuel up on bananas and lurid jelly snakes.

Hayes was a little disappointed by the turnout — he had been hoping for up to 50 — but was pleased by the group that did saddle up. “Their skill level is quite even, and they have been able to stay together quite well,” he said, during a quick “lunch break” for coffee and cake at Applecross.

Only later, on the last leg, when the riders were battling a stiff and gusty headwind, did some of them find the conditions a little challenging. Mark Sheppard, at APPEA this year to represent his own recently-formed company, Opus Energy Solutions, thoroughly enjoyed the ride.

Although he has attended previous APPEA conferences, this was his first time in the saddle, but it will not be his last. “We all need time out, so having sporting events included in the conference is a very wise thing to do,” he said.

There was one near miss, when at the bottom of a hill a car that had just overtaken the cyclists suddenly turned left across them. “He just didn’t look in his mirror,” Hayes said. “Cycling has just got bigger and bigger. But some of our roads are not ready for it, drivers are not ready for it, and half the time the worst offenders are the riders themselves,” he said.

Wheeling off at half past 11, the last riders were back at the Convention Centre by 3pm, while others opted to ride home directly.

**Saddling up and Freo-bound**

Small but beautifully-formed band of cyclists join Commonwealth Games medallist Michael Freiberg for Sunday spin

**BRIAN DONAGHY**

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