Tillerson demands frontier spirit

EXXONMOBIL chief executive Rex Tillerson tells WPC industry needs to balance drive into new frontiers with ‘wise environmental stewardship’.

Sechin wants return to ‘fair play’
Rosneft executive chairman calls on Russian authorities and governments of other industrialised nations to end ‘systematic manipulation’ of tax, pricing, finance and sanctions.

Novatek deal
Russian gas player joins Rosneft and Gazprom in yards push.

Subsea move
New twist in Russia’s Shtokman project development.

Eyes on Arctic
Statoil plans to build own unit for Arctic offshore drilling.

Tight costs
Saudi Aramco hopes to reduce tight gas production costs to a level that will rival US.

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Tillerson says industry must seek new frontiers

ExxonMobil chief executive says expansion into new areas needs to be balanced with ‘wise environmental stewardship’

NOAH BRENNER
Moscow

EXXONMOBIL chief executive Rex Tillerson argued that the oil and gas industry must continue to push into new areas such as the Arctic, ultra-deepwater and tight unconventional formations.

However, Tillerson warned that industry must do so with an eye toward reducing the environmental impact of its operations at the same time.

“We seek not just to deliver the energy the world needs but do so in a way that is safe and environmentally responsible,” Tillerson said during the opening plenary at the World Petroleum Congress in Moscow.

Industry will need to adhere to that mandate of safe and environmentally responsible energy while ramping up production.

“We must recognise the global need for energy is projected to grow and grow significantly,” Tillerson said.

Currently, one in five people in the world has no access to electricity and two in five people use biomass, such as wood or animal dung, for heating and cooking, both of which “have far-reaching consequences for their health and their quality of life,” Tillerson said.

Bringing modern energy to those people will boost worldwide energy use by 30% over the next 25 years or so, according to ExxonMobil research.

The increase is more than the combined energy use of Russia, India, Africa, Latin America and the Middle East, Tillerson said.

“These fundamental facts mean that every discussion of energy and policy has a humanitarian dimension,” he said.

However, the biggest source of additional energy to meet that demand will not be new sources at all.

“The number one source of new energy” will be gains in energy efficiency, Tillerson said.

“We must pursue strategies that reflect wise environmental stewardship,” he said.

“This means we must invest, innovate and relentlessly advance the technologies and techniques that promote energy efficiency, improve environmental performance and reduce the greenhouse gas and air pollution emissions associated with increased energy use.”

However, efficiency gains can only go so far and the world will need to continue to expand production from new geographic and geologic frontiers.

Deep-water oil production will grow roughly 60% to more than 10% of total globally. Exploration in the Arctic in places such as Sakhalin and the Kara Sea will further add to world production.

Finally, Tillerson singled out the combination of multi-stage hydraulic fracturing and horizontal drilling as one success story for both industry and the environment.

Since 2005, US oil production has grown by almost 70% and US natural gas production has grown by about 45%.

However, US greenhouse gas emissions levels are the lowest they have been since 1990, even though the US economy is 50% larger and there are 50 million more people using energy in the country.

“The US unconventional revolution has shown we can expand supplies and reduce air pollution and carbon emissions,” Tillerson said.

“With sound policies our industry can apply new technologies and techniques to unlock cleaner burning natural gas around the world.”

GLOBAL OUTLOOK

Nations need to innovate

NATION’S energy strategies need to foster and support innovation as the search for hydrocarbons moves into deeper waters and other frontier areas, according to India’s recently appointed Minister of Petroleum & Natural Gas, Dharmendra Pradhan.

Addressing the first plenary session at the World Petroleum Congress in Moscow, Pradhan said that investments in technology innovation had helped companies to explore in deeper waters for oil and gas, develop shale gas and tight oil reserves and step up Arctic operations.

“The climate for innovation and technology development must be achieved through policy measures, joint ventures and industry partnerships,” Pradhan told delegates.

Improving regulatory and policy issues can enhance oil and gas production and “we must proactively address regulatory and political bottlenecks”, said Pradhan.

Sanctity of contracts and transparency are also key to securing a healthy energy market, according to the minister.

“At the same time, meeting growing energy needs will require the responsible use of energy,” he said.

Rosneft executive chairman Igor Sechin said at the same plenary session that if global per capita energy use was the same as that in the US then the world would need four times as much energy.

“There is tremendous responsibility on the world’s oil and gas industry leaders to ensure that the energy needs of all are met in a manner which enables the holistic development of mankind,” said Pradhan.

“The source of energy has always been an integral part of the Indian spiritual journey, and harnessing it in a sustainable manner has always been spiritual to us,” he said.

Moscow

Pradhan at WPC 2014 in
Minister Dharmendra
Responsibility: India’s
Petroleum & Natural Gas
Minister Dharmendra
Pradhan at WPC 2014 in
Moscow
Photo: KAIA MEANS

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RUSSIA

Novatek signs up for yard plan

Gas player joins with Rosneft and Gazprom in deal to finance and build at least two yards in far east of country

VLADIMIR AFANASIEV
Moscow

RUSSIA’s largest independent gas producer, Novatek, and state-controlled gas giant Gazprom have joined an initiative of Rosneft, Gazprombank and OSK United Shipbuilding Corporation to finance the construction of at least two modern fabrication yards in the far east of the country.

According to a memorandum of understanding, signed on Monday on the sidelines of the World Petroleum Congress in Moscow, participants will discuss the conditions of a joint initiative to invest some $3.3 billion in the project.

Russian Minister of Industry & Trade Denis Manturov said the project will have three phases of construction. After the third phase is completed, the Zvezda yard in Bolshoi Kamen Bay in the Russian far east will be able to build substructures for offshore drilling rigs and platforms, as well as liquefied natural gas carriers and other support vessels for Arctic offshore projects.

Plans are also in place for opening another yard on the shores of Pyati Okhotnikov Bay, targeting construction of topsides for drilling rigs and platforms, Manturov said.

He added that the government could consider bankrolling the yards project at a later stage by providing direct financing or other indirect support.

Rosneft president Igor Sechin has just held meetings in Moscow with the president of South Korean yard giant Daewoo Shipbuilding & Marine Engineering, Jae Ho Goh, to discuss Daewoo’s possible participation in the Zvezda yard construction project, as well as the transfer of technology, according to Rosneft.

The Russian government agreed last year to cede a 75% controlling interest in the Zvezda yard to a consortium of Rosneft and Gazprombank, leaving the remaining interest in the hands of state-owned OSK United Shipbuilding.

Earlier this month, Sechin told Russian President Vladimir Putin that Rosneft will need about 100 offshore rigs, platforms, vessels and other marine units for its Arctic exploration and development programme.

New deal: Novatek executive chairman Leonid Mikhelson (left) and Rosneft executive chairman Igor Sechin (right) at the signing at the World Petroleum Congress of the joint initiative to construct new fabrication yards

Photo: VLADIMIR AFANASIEV
Plenary Sessions

PL 03 - The industry's role in promoting development
08.30-09.30 (PL-Hall)
Session Chair:
Daniel Yergin, Vice Chair, IHS, and Pulitzer Prize Winner for "The Prize", USA
Plenary Speakers:
Bob Dudley, CEO, BP, UK
Jose Alcides Santoro Martins, Director, Gas & Energy and Member of the Board, Petrobras, Brazil
PL 04 - Science and technology: energising the future
09.30-10.30 (PL-Hall)
Session Chair:
H.E Suhail Mohamed Al Mazrouei, Minister of Energy, UAE

Plenary Speakers:
Hégé Lund, CEO, Statoil, Norway
Samir Bihiu, CEO, AMEC, UK
PL 05 - New frontiers in conventional and unconventional oil and gas
13.00-14.00 (PL-Hall)
Session Chair:
Li Panyang, CEO and President, CNOCO Limited, China
Plenary Speakers:
Mr. Eulogio Antonio del Pino Díaz, Vice-president of Exploration and Production, PDVSA, Venezuela
Yves-Louis Darracarre, President, Total Exploration & Production, France

Block 1. Exploration and Production of Oil and Natural Gas
F03 – Deep water exploration and production
14:15 – 15:45
Chair:
Mr. João Carlos Figueira, Senior Petroleum Geophysist, PETROBRAS, Brazil
Vice Chairs:
Dr. Emmanuel Bekele, Assistant Director, Department of Petroleum Resources, Nigeria
F04 – Unconventional oil and gas exploration and production
16:00 – 17:30
Chair:
Mr. John Wright, President and Chief Executive Officer, Lightstream Resources, Canada.
Vice Chairs:
Prof. Jeremy Stopa, Vice Chairman of Petroleum Engineering Chair, AGR-University of Science & Technology, Poland
F05 – New technologies for geosciences
14:15 – 15:45 (Room 5)
Chair:
Mrs. Catherine MacGregor, President Europe and Africa, Schlumberger, France
BPKZ – Best practice for managing E&P risks
12:00 – 13:00
Chair:
Mr. Paulo Costarcuta, E&P Strategy, Portfolio General Manager, PETROBRAS, Brazil
Speakers:
Mr. Martin Bachmann, Member of the Board, Ressort "E&P – Exploration and Development", Wintershall Holding GmbH, Germany.
Mr. Ali Meshiti, President, Chevron, United States
RTO3 – How should we optimise cycle time from exploration to production?
12:00 – 13:00
Moderator:
Mr. Philip Whittaker, Associate Director in Energy practice, BCG, Spain
Panelists:
Dr. Jefferson Luiz Dias, Exploration, PETROBRAS, Brazil
Mr. Simon Dunkin, VP Safety, Environment & Social Performance, Shell, Netherlands
Mr. Misfer Azzahzani, General Manager at Upstream, Saudi Aramco, Saudi Arabia
Mr. Ahmed Usman, Vice President and Chief Reservoir Engineer, Baker Hughes, United States
Block 2. Refining, Transportation and Petrochemistry
F11 – Technologies for biofuels production
14:15 – 15:45
Chair:
Prof. Luz Augusto Horta Nogueira, Professor, Universidade Federal de Itabira, Brazil
Vice Chairs:
Dr. Hans Gosselink, Team Lead Biobased, Shell Projects & Technology, Netherlands
Ms. Melissa Stark, Partner, Clean Energy Lead, Accenture, United Kingdom
RTO4 – Influence of local product specifications on refinery modernisation
12:00 – 13:00
Moderator:
Dr. Robert Storey, Managing Director, Turkey, Sotac, Turkey, United Kingdom
Panelists:
Mr. Jaime Berbes, Director Technology, CEPSA, Spain.
Dr. Nello Uccelletti, Senior Vice President, Eni, Italy, Technip, France.
Mr. Sri Ganesh Gandham, Executive Director Refineries, Hindustan Petroleum Corporation Limited, India.
Dr. Davod Nasser, VP of Strategic Investment, BAPCO Refinery, Bahrain
RTO5 – Sustainability of biofuels from different feedstocks
16:15 – 17:30
Moderator:
Dr. Peter Sauermann, BP Technology Manager Europe, BP Europa SE GFT, Germany
Panelists:
Dr. Barbara J. Buger, President, Chevron Technology Ventures, United States.
Mr. Milosz Evangelista, Director of Ethanol Ventures, PETROBRAS BIOFUELS, Brazil.
Mr. B.P. Das, Executive Director, Refining Technology, India.
Dr. Mark Tsdokov, Head of Laboratory, Institute of Petrochemical Synthesis, Russian Academy of Sciences, Russian Federation

Block 3. Natural Gas Processing, Transportation and Marketing
F15 – Impact of the growing unconventional gas supply
14:15 – 15:45
Chair:
Mr. Cunzhang Yan, President, PetroChina Foreign Cooperation Administration, China
Vice Chairs:
Dr. Konstantin Simonov, Director, National Energy Security Fund, Russian Federation.
Panelists:
Ms. Melody Meyer, President, Chevron Asia Pacific E&P Co., United States.
Ms. Melody Meyer, President, Chevron Asia Pacific E&P Co., United States.
Mr. Szabolcs Ferenczi, Managing Director Pearl GTL, Shell Qatar, Qatar
RTOB – What is the future of natural gas?
16:00 – 17:30
Moderator:
Mr. Nobuo Tanaka, Global Associate for Energy Security and Sustainability, Institute of Energy Economics, Japan, Japan
Panelists:
Mr. Dick Benschop, Vice President Gas Market Development, Shell, Netherlands
Dr. Olivier Appert, Chairman and CEO, IFP Energies nouvelles (IFPEN), France
Mr. Hadi Bahar, Chief Economist, IEA, France.
Mr. Tarhanya Mitrova, Head of oil and gas industry department, Energy Research Institute, Russian Academy of Sciences, Russian Federation
Mr. Colin Parfitt, President, Supply and Trading, Chevron, United States
Ms. Melody Meyer, President of Chevron Asia Pacific E&P, Chevron, United States

Special Sessions

SP07 – Inspirational Leadership: Promoting talent in the industry
14:15-15:45 (Room 6)
Session Chair:
Dr. Jeff Spath, 2014 SPE President and Vice President Industry & University Relations, Schlumberger, France
Keynote Speakers:
Nishi Vatsaldeva, Chair and MD, Hindustan Petroleum CL, India
Remi Eriksson, Group Executive VP and COO, DNV GL.
Ulu Ijefika, CEO, Britannia U Company, Nigeria
Vladislav Pozdyshev, Vice President for Human Resources, Bashneft, Russia
Celine Rottier, Chair, WPC Youth Committee
SP08 – Changing the image of the industry
16.00-17.30 (Room 6)
Session Chair:
Ulfie von Lonski, Director of Communication, WPC
Keynote Speakers:
Galen Cobb, VP Industry Relations, Halliburton, USA
Eng. Jorge Ciaccialberti, Executive Secretary, ARPEL, Uruguay
Katharina Gruenberg, UK Representative, WPC Youth Committee
Erik Means, Editor-in-Chief, Upstream Committee

Technical
RUSSIA

GAZPROM’s on-hold multi-billion-dollar Shtokman giant gas field development in the Russian Arctic is now being eyed as a subsea development, according to partner Total.

“The advances we made with flow assurance made the possibility of making ‘well to shore’ transportation possible,” said Total’s senior vice president of development, Michel Hourcard.

The partners are now looking at delivering Shtokman’s gas and condensate together by pipeline from the subsea wells and separating these and the water at an onshore plant. All gas treatment would be carried out onshore, added Hourcard.

The Shtokman field is located in the north-west part of the South Barents basin, about 550 kilometres offshore, and is estimated to hold about 3.9 trillion cubic metres of gas plus significant condensate reserves. Shtokman, which is touted as a three-phase development, had earlier envisaged floating production units with on-board gas dehydration.

“We came up with the FPU — a logical project [but] with high costs… the fiscal terms offered by the state could not make a viable project so we had to reassess the logic of the development with floating facilities,” Hourcard told delegates at a keynote session covering management of Arctic and deep-water mega projects at WPC in Moscow.

Co-venturer Total related its experience with the Laggan Tomore project in deep UK waters West of Shetland, which is designed in a similar manner, explained Hourcard.

Laggan Tomore sits in a water depth of 550 metres about 140 kilometres from shore.

The Shtokman field development is divided into three phases. Phase one and Phase two facilities commissioning will allow for respective annual production of 23.7 billion and 47.4 billion cubic metres of gas, according to operator Gazprom.

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Sechin in call for ‘fair play’ to be brought back

Rosneft executive chairman wants an end to ‘systematic manipulation’ of tax, pricing, finance and sanctions

VLADIMIR AFANASIEV
Moscow

Rosneft executive chairman Igor Sechin has called for Russian authorities and governments of other industrialised nations to restore “fair play” conditions in the oil and gas sector to promote competition and equal access to resources and capital.

Speaking on Monday at the morning session of the World Petroleum Congress in Moscow, the head of the state-controlled oil giant said that large oil companies are suffering from a “systematic manipulation” imposed by authorities in the shape of excessive taxation, price regulations, limited availability of project finance and sanctions, despite the vital role they play in supplying the world with energy to drive progress and growth.

Sechin has first-hand knowledge on the subject of sanctions, as he and a handful of other Russian business leaders, are deemed to be in the inner circle around Russian President Vladimir Putin, to be in the inner circle around Russian business leaders, all deemed as he and a handful of other Russian authorities in the shape of excessive taxation, price regulations, limited availability of project finance and sanctions, despite the vital role they play in supplying the world with energy to drive progress and growth.

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Gazprom stops gas to Ukraine

RUSSIAN gas monopoly Gazprom halted gas supplies to Ukraine on Monday after last-minute talks in Kiev failed to reach a compromise on the price of gas imports to the country, writes Vladimir Afanasiev.

Gazprom executive chairman Alexei Miller reportedly walked away from the talks late on Sunday evening after Ukraine reiterated it will not agree to the price of $386 per thousand cubic metres offered by the Russian gas giant.

Gazprom has firmly rejected alternative gas pricing proposals from Ukraine, backed by the European Commission, ranging between $300 and $326 per thousand cubic metres.

According to Gazprom, it will continue pumping gas to Ukraine under its long-term contracts with European buyers, and will monitor the outflow of gas on the country’s western borders with Europe.

Gazprom said it has warned the EC that it may reduce transit gas supplies if Ukraine starts “siphoning off gas from transit flows”, currently running at just 185 million cubic metres per day of gas.

The company said that such a scenario will unfold, it will attempt to deliver more gas to Europe through “alternative routes”, such as the Nord Stream and Yamal-Europe pipelines.

Gazprom added that it has filed an appeal with an international arbitration chamber in Stockholm in an attempt to recover over $4.5 billion of Ukraine’s debt for earlier gas deliveries.

Ukraine Prime Minister Arseny Yatsenyuk has been quoted as saying that his country will not agree to Russia’s high gas price demands, so that the Russian authorities do not use these revenues to buy and supply weapons for pro-Russian separatists in the Ukraine’s eastern regions of Donetsk and Luhansk.

According to Ukraine government officials, the country has sufficient gas stockpiles to last without Russian gas imports until the end of December.

However, European energy commissioner Gunther Oettinger, who brokered talks between Gazprom and Ukrainian gas importer Naftohaz, warned that Europe may face gas shortages this winter if Ukraine does not continue to store Russian gas this summer.

Warning: European Union Energy Commissioner Gunther Oettinger

Photo: AFP/SCANPIX
ARCTIC DEVELOPMENTS

STATOIL is progressing plans to build its own Arctic offshore drilling rig to save money and increase safety at its assets in the Barents Sea and the north Atlantic.

In collaboration with suppliers, Statoil said it is developing the Category I rig to decrease its environmental footprint and help reduce costs, as well as avoid growing competition for rigs capable of drilling in Arctic conditions.

“We need an overall strategy that will help to explore and develop our Arctic basins in a safe, sustainable and cost-effective manner,” Statoil executive vice president Tim Dodson told delegates at the World Petroleum Congress in Moscow on Monday.

Speaking in a special session at WPC on the challenges and opportunities of Arctic development, Dodson said: “To unlock the full potential of the Arctic and to make Arctic projects commercial—viable and globally competitive, we need new technology and innovative business models.

“This is really a solution to operating remotely in the Arctic — in order to do that we need to develop a rig, or drillship, for robust and cost-efficient operations. The Cat-I rig is being designed from scratch to fit the needs of Arctic operations,” he said.

Dividing its Arctic assets into three categories, Statoil is developing new approaches to deal with conditions ranging from shallow areas such as the south Barents Sea and eastern Canada to significant ice in north-west Greenland, or continuous heavy ice in north-east Greenland.

“I think the Arctic, in addition to the Middle East and Russia, is one of the very few remaining areas with the potential to make huge discoveries,” Dodson said. “The large resource potential is the driver for our position in the Arctic.”

With global demand expected to increase 30% between now and 2040, collaboration among Arctic operators and governments will be a major driver behind successfully unlocking Arctic resources and getting it to market.

“We need to work with other oil companies and suppliers to develop Arctic solutions,” he added.

Comparing the Arctic’s potential to Russia and the Middle East, Dodson said its setbacks are equally daunting, with climate, health and safety, environment and remoteness the biggest challenges.

Petcon scores contracts

MALAYSIAN player SapuraKencana Petroleum has secured more work for its drilling division in the form of new contracts and an extension worth a total of $700 million, writes Steve Marshall.

Wholly-owned subsidiary Petcon has landed a brace of contracts with Petronas Carigali to provide two tender-assist rigs, SKD T-9 and SKD T-10, for development drilling work off Malaysia.

The SKD T-9 has been hired for an initial five years — effective from next month — with an optional two-year extension, while the other unit has been taken on for a three-year lease starting in August and extendable for two more years.

Another tender-assist rig, SKD T-18, has been taken on charter by Chevron for development drilling off Thailand under a separate five-year deal with wholly-owned subsidiary SapuraKencana Drilling Asia due to start this month.

Wholly-owned offshoot Seadrill Jaya has meanwhile gained a one-year contract extension with UK supermajor BP for use of the tender-assist rig West Jaya off Trinidad, due to start in August.
**TIGHT SANDS RESERVOIRS**

Breaking new ground: Saudi Aramco chief executive Khalid al-Falih

**SAUDIARAMCO seeks to bring down output cost**

**Player aims to better US unconventionals production price with break-even rate from tight formations**

NOAH BRENNER

Moscow

SAUDI Aramco hopes to bring down the costs of producing nat-ural gas from tight formations to as little as $2 to $1 per thousand cubic feet within the next few years — a break-even cost that would be equal to or better than many of the best unconventional plays in the US.

"We are pushing, we are seeing good signs, good indications from the sandstones and good cost in our drilling and completions," Saudi Aramco manager of gas reservoir management Adnan Kanaan told the World Petroleum Congress in Moscow.

"So we are marching toward that." Much of Saudi Aramco's initial work has been done in tight sands reservoirs where permeability and porosity is greater than that of the shale formations produced in the US, but below that of conventional oil- and gas-bearing sands, Kanaan said.

"The majority now is sandstone," he said. "We do have shale but shale will take a little bit more time because we need to go with the low-risk, high-reward (projects) to get our revenue, but definitely shale is part of our focus area and it is part of the exploration and appraisal." Aramco began its own research into multi-stage hydraulic fracturing in 1998, experimenting at first with just a couple of stages and progressing to 10 stages in a single wellbore to determine the impact of the volume and size of the fracture stimulation on well production.

In its first effort, the company re-entered a vertical tight sand well that had an initial production rate of about 1.4 MMcfd, and drilled a lateral leg that was then fracked in four stages. After the fracture job, production jumped to 10 MMcfd.

More recent efforts have included frac jobs of up to 15 individual fracture stages and resulted in initial production rates as high as 20 MMcfd.

The well results benefit from reservoirs that are not quite as tight as some of those targeted in the US, Kanaan said.

"The production and the reservoir quality is a little bit better than the US," he said. "Some of them belong at the borderline between conventional and unconventional." Much like its counterparts in the US, Saudi Aramco is looking at gas plays with high liquids content to yield better economics for its projects.

Kanaan declined to talk about exactly how many unconventional wells Saudi Aramco might drill in the coming year.

"I can tell you, a lot," he said.

RESEARCHERS in Japan are designing the third phase of their methane hydrate exploration plan as they mull the best way to get a long-term production test of cutting-edge energy source.

The energy-starved country estimates that its research area around the Nankai Trough alone could hold up to 1.1 trillion cubic metres (about 40 trillion cubic feet) of methane trapped in icy hydrates, Yoshihiro Masuda, associate professor of engineering and project leader for Japan's methane hydrate research consortium, said at WPC in Moscow.

In 2011, the team tested the first offshore methane hydrate well, which flowed at an average rate of 20,000 cubic metres (more than 700,000 cubic feet) over the course of six days before the well became plugged with sand. The next step in the programme is a long-term production test but no decisions have been reached yet about when that will happen.

"We are now talking about the next production test — when and how and the budget," Masuda said, adding that the next test would be "very important to our commercial production".

The long-term test could take place in the existing wellbore or in a newly-drilled well. Either way, Masuda said he still viewed methane hydrates as a promising new energy source, in part because the researchers believe that only about three metres of the 40-metre hydrate-bearing formation actually contributed to production.

"I hope in the next production test we can produce much more," he said.

**EYES turn to rail network**

**NETWORK PROPOSED**

Treb & Titov may hold Arctic key

EXPANDING Russia’s existing rail network to Bashneft’s Treb & Titov oil project along the coast of the Barents Sea would go a long way to solving the Arctic region’s significant lack of infrastructure, writes Tonya Zelinsky.

In 2013 the privately-held Russian company moved about 86 million tonnes of equipment and supplies to its Treb & Titov operation in the Nenets region via rail and winter roads.

However, with other majors like Rosneft and Lukoil also operating in the region, the rail system is overtaxed, according to its vice president of oil gas, Oleg Mikhailov.

"If you envision full-scale development of the Arctic you have to envision moving millions of tonnes of supplies to one of the most remote regions of the world," he said during a special session on Arctic development Monday morning.

"More significant development would require expansion of the railroad infrastructure — building a network of ports and shore bases along the coast of the Russian Arctic.

"This will not be possible without close collaboration with the Russian Federation Government." Achieving first production in August 2013 at its US$8.5 billion Treb & Titov joint venture with Lukoil (25.1% working interest), the project is targeting ultimate capacity of 100,000 barrels per day by 2020.

Mikhailov said the project was a good example of the type of challenges operators face when developing Russia’s Arctic reserves.

Adding to its infrastructure woes, Bashneft is required to build its own waste processing and drill cutting processing sites.

"Safety is another major concern," said Mikhailov. It requires working closely with the Russian federation to ensure strict safety standards are in place for all operators in the event of an oil spill.

"The 2010 Macondo incident in the Gulf of Mexico showed the challenges that can be faced even by the largest companies in the world when dealing with an uncontrollable oil spill.

Dealing with an oil spill offshore in the Arctic during ice conditions would be an even more daunting task," he said.
SOCIAL media is now acting as one of the key tools allowing industry to build continuous and strong relations between staff and the public globally. It provides a platform for companies to communicate their projects, achievements and their social responsibility to a wider audience.

Furthermore, it is a helping hand in both challenging and prosperous times for companies. Social platforms are an important element to communicate with the public in the event of a crisis. In addition, the involvement of employees in the evaluation of projects and discussions on niche technologies can be achieved through social media — this acts as a confidence-building measure.

As social media is becoming an integral part of our lives, it is increasingly used to attract and retain talent into the oil and gas industry. Improving perceptions about the industry’s good corporate social responsibility policies and practices can play a major role on a continuous basis.

An international survey, conducted by the WPC youth committee with 1400 youth respondents, indicated that youth, regardless of gender, is critical about the industry messages in media and proper use of social media. Educating the public on developments in industry is vital to improve perceptions about the industry and wipe out myths, but also to bring more awareness and understanding to a broader audience.

By managing the risks associated with an uncontrolled diffusion, the international oil and gas companies could capitalise on the unlimited potential of social networks and youth enthusiasm for these platforms.

Is your company using Facebook or Twitter?

Vijay Anne
WPC Writing Fellow

AGM is an Africa-focused private oil and gas exploration company working in cooperation with National Oil Companies and indigenous operators to develop hydrocarbon concessions and build strategic national capabilities.

AGM combines extensive operational expertise with world leading technical capabilities in deep water offshore well engineering and drilling.

AGM is committed to building long-term partnerships in the countries in which it operates. Acting as a strategic partner to National Oil Companies and indigenous operators, our focus is to jointly operate and manage oil and gas assets and build technical and operational expertise, which over time would position our business partners to become standalone operators. We are also dedicated to invest in social and community welfare of the countries in which we operate, ensuring local communities benefit from the development their national resources and broadening local participation in the petroleum industry.

In Ghana, AGM entered into a strategic alliance with the Ghana National Petroleum Company (GNPC) to explore and develop the South Deepwater Tano offshore concession. The concession is part of the prolific Tano Basin boasting several discoveries including the >2BBOE Jubilee field. Two exploration wells are planned to be spudded in 2015.

Minexco (S.L.) Limited, another of Minexco Petroleum group of companies, holds acquisition and reprocessing programme has been conducted over the entire concession area, with plans for a further 3D seismic acquisition program to be conducted later this year.
**UNCONVENTIONALS**

**LNG still has a future — so long as costs are kept in hand**

*Photo: AMANDA BATTERSBY*

**Many views on where to turn for new resources**

While shale and tight oil plays are the future for some, there are **many different answers to the same question**.

**Photo: EOIN O'CINNEIDE**

**IT IS not just the geological differences and challenges that explain why Russia and China are not today enjoying the shale revolution that is sweeping the US, according to Lukoil vice president Andrey Kuzyaev.**

Russia's unconventional resources are 40% higher than those in the US and yet the country have not produced even 1 million tonnes yet, he told delegates at the WPC round table on where to find new resources.

Kuzyaev said shale requires special taxation to make it attractive for companies to explore, test and produce from plays.

Moreover, unlike in the US, there were lengthy negotiations required for licensing and permitting that may deter players.

Those companies with deep pockets could be tempted to play the long game on China and Russia's tight oil and shale gas plays, but he noted that the revolution in the US was driven by "oil entrepreneurs" rather than industry heavyweights such as Chevron, ConocoPhillips and ExxonMobil.

Kuzyaev also mused about what would come out of the "marriage between liquefied natural gas and shale", pointing out that associated shale gas has not found a market in the US.

GDF Suez Exploration & Production International chief executive Didier Holleaux added that shale gas has to compete locally with conventional gas.

"A very important factor that some people forget about the US is that, at the time of shale gas development, the price of conventional gas was around US$8 per million British thermal units," said Holleaux. This contrasts with Russia, where you can develop a medium of conventional gas fields at a price of less than US$2 per million Btu.

"Why should you invest in shale gas in Russia... it doesn’t make any sense," said Holleaux.

"**Tax is ‘key to shale profits’**

**Photo: EOIN O'CINNEIDE**

**THE booming unconventional industry may have led some oil companies to believe that the likes of shale gas and tight oil plays are the places to bolster dwindling reserves, but in reality industry players hold divergent views on where is best to find new resources.**

Three panelists presented with such a question at the opening day of the 21st World Petroleum Congress in Moscow on Monday epitomised this split in attitude, bringing different perspectives from contrasting global markets.

"It is amazing how different the answers are that oil and gas companies are giving to the same question," said Didier Holleaux, chief executive of GDF Suez E&P International.

"The (real) question at the end of the day is — what is fitting with your company’s strategy?" Holleaux said: "We have no interest in resources, we have only an interest in reserves — because there is nothing you can do with resources unless you turn them into reserves."

Holleaux said oil companies can create large amounts of reserves simply by delaying the abandonment of fields — by utilising enhanced oil recovery techniques, for example. Although the French player does participate in some frontier plays — in Azerbaijan’s Caspian Sea waters with Total, for instance — it will continue to concentrate on near-field exploration, such as its operated positions in the Dutch North Sea.

Cesar Cainelli, vice president of exploration at Brazilian independent Barra Energia, pushed the exploration at Brazilian independent Barra Energia, pushed the frontier exploration agenda, highlighting how the Brazilian pre-salt discoveries had opened up new provinces globally.

"Deep-water exploration is going to continue to be the main frontier," he said.

"Of course you (also) can continue pushing forward the limits of exploration — like the north of the North Sea, Greenland, maybe even offshore Argentina," he said.

"We see that we have the opportunity everywhere, the potential for growth." We must look everywhere where there is an economic potential," he said, highlighting Mexico and Iraq as regions with significant upside. Iran also has huge potential, but this is counterweighed by political barriers. "But we are sure that sooner or later conducive conditions for investment will be established there," Cainelli added.

Andrey Kuzyaev, vice president of Russia’s Lukoil, indicated that the company is primarily pinning its hopes on conventional oil, identifying Middle Eastern markets as the likely main drivers behind increased output.

"We believe that in the next 10 years conventional resources will be able to satisfy demand," he said.

Although Lukoil is pursuing some unconventional oil and gas projects, Kuzyaev said that unconventional generally involve higher degrees of geological and geopolitical risk, and produce lower recovery rates than conventional resources.

**Market: Andrey Kuzyaev, vice president of Lukoil**

**Photo: EOIN O'CINNEIDE**
INDUSTRY EXPERIENCE

Bid to beat the knowledge leak

Companies must improve in efforts to stop loss of invaluable expertise when older employees retire and younger ones take over, say experts

ROB WATTS
Moscow

Oil and gas companies have to do a better job of stopping valuable knowledge leaking permanently out of the industry as older staff retire, delegates to the 21st World Petroleum Congress in Moscow heard on Monday.

Industry leaders were told the issue is becoming even more critical as the size and technical complexity of many oil and gas projects—and capital costs—increase.

Thierry Pilenko, chief executive of French service company Technip, said it was crucial for the whole sector to ensure that knowledge and expertise are transferred more effectively from older to younger staff. “It is not only a problem for my company hiring engineers, it is the problem of the industry,” Pilenko said during a session on knowledge management.

“Knowledge management is first and foremost about people.”

David Williams, managing partner of global oil and gas at UK-based Highland Group, echoed this view.

“Knowledge in our industry has never before been in such need of management on a formal and active basis,” Williams said.

“It is my belief that knowledge is embedded within people, developed by people’s experience and understanding. Therefore, when we talk about knowledge management we really need to consider people management and how we organise our industry.”

He added: “There is an unprecedented leakage of experience and knowledge from the industry as the ‘great crew change’ happens and the older guard retires.

“Knowledge is a precious resource and we need to think of this as an asset to the industry as a whole, as well as the individual organisations within it.”

Also speaking was Rima Al-Awadhi, knowledge management team leader at Kuwait Oil Company, who said companies could develop mentoring programmes as an effective first step to safeguard knowledge.

One idea she put forward to keep retired staff in touch with their former employers—and provide a pool of expertise to current employees—was to keep their email accounts active for a few years after they leave the company.

Retention: Technip chief executive Thierry Pilenko

Photo: AFP/SCANPIX
SOME governments need to provide adequate incentives to capital-constrained oil companies or run the risk of seeing their resource bases lying untapped, according to BP chief executive Bob Dudley.

The crunch on capital is not only affecting private oil and gas players but is also hitting national oil companies in the pocket, although a number of countries are leading the way in terms of creating the right business environments — among them Mexico, Dudley argued on the opening day of the 21st World Petroleum Congress in Moscow. “The industry will be very, very careful on selecting its projects so that we can begin to generate the kinds of returns on investment that we must do as an industry,” he answered to panel chair, IHS vice chairman Daniel Yergin.

“I think we are starting to see that all across the industry — the cost of suppliers and contractors has been going up quite significantly over the last decade.”

When asked by Yergin if this “new reality of discipline and selectivity” was being recognised around the world by resource-holding countries, Dudley was forthright in his response. “I think the words ‘competition for capital’ cannot be overdone, whether it is inside a company or around the world,” he said. “All companies have limits on how much capital they have.”

“There are some countries around the world that are realising very quickly that they need to create (the right business environment) in order to spur investments.”

“Countries that don’t understand that this great energy industry is under pressure on how it allocates its capital will be left behind and will be left to import fuel rather than (produce) it themselves.”

Yergin immediately asked fellow panellist, Russian Deputy Minister for Energy Kirill Molodtsov, if his government was cognisant of such concerns. Molodtsov said the Russian government is very attentive to these issues and is looking at what it can do as regards initiatives to stimulate production.

Many of the issues and concerns raised at WPC would be taken back to the ministry for debate as it looks to hammer out the country’s energy plan to 2035.

Dudley pointed to a trio of countries that are leading the way in terms of recognising the competition for oil company capital — India, Norway and Mexico. While India has its own re-
BP Statistical Review says 2013 bucked trend

LAST year proved to be a trend-bucking 12 months as global energy demand accelerated despite slacking economic growth, according to BP’s latest Statistical Review of World Energy.

Oil prices also remained remarkably stable against the backdrop of some severe supply disruptions — most notably in Libya — as the US unconventionals boom drove domestic consumption.

The UK supermajor’s 63rd instalment of a review dating back to 1954 showed that the global economy balanced last year. However, non-OECD energy demand was below average, while OECD demand was above average, mainly driven by the US.

China, the US and Russia were, in that order, the three largest consumers of oil and gas last year. However, the share of oil in the global energy mix fell to 33%, whereas coal increased to about 30%.

Gas lost some market share, as did nuclear, but renewables were up, while hydroelectric stayed flat.

Energy consumption has been flat in recent years in the OECD region despite economic growth. However, 2013 broke that pattern, with global energy consumption growing around 2.3% despite a slacking in economic growth, and the key economies of US and China going down very divergent paths, BP’s review found.

In the OECD region, demand growth was about 1.2% — almost on a par with GDP growth. In the non-OECD countries, despite being up 3.1%, consumption growth was at its lowest in 13 years — except for the crisis year of 2009 — and “substantially below GDP growth”, BP’s chief economist Christof Ruhl said.

North American consumption growth was even faster than GDP growth, also outpacing the rest of the OECD region, while Asian consumption growth was below 4% for the first time in years, Ruhl said.

Whereas the US and China together accounted for about 70% of oil demand, the former was responsible for the relative strength in oil demand growth last year, BP said.

With 400,000 barrels per day of oil, the US slightly outpaced China in terms of crude demand last year.

This was against an average annual decline in the US of 1.6 million bpd over the last four years, Ruhl said.

US oil production — driven by tight oil plays — reached 10 million bpd, representing a jump of more than 1 million bpd and the highest for the US since 1996.

Ruhl said this rise in US oil production was largely the reason for the continued stability of the oil price, as disruption due to geopolitical factors in the Middle East and North Africa was “matched almost barrel for barrel” by the increase in US output.

“Higher prices may induce more production over time, but virtually nothing else of logical substance connects these two developments,” he said.

Therefore, I think markets will remain on edge — or remain eerily calm, as we have seen in prices today — until one side gains the upper hand,” Dudley added: “Take away disruptions and we would have seen a lower energy price, no doubt. But take away the production increases and we would have seen a much higher one.”

Ruhl reveals what vexes him about global energy

AS BP chief economist Christof Ruhl gets set to quit the UK supermajor for the Middle East, IHS vice chairman and Pulitzer Prize winner Daniel Yergin threw the chief economist a curve ball to wrap up the presentation of his last Statistical Review of World Energy.

Ruhl has been snapped up by the Abu Dhabi Investment Authority to become its inaugural global head of research, heading to the new post in July.

On delivering his eighth and BP’s 63rd such energy review at WPC on Monday, Ruhl was questioned by Ruhl on what has most vexed him about global energy patterns in his time at BP.

Although initially reluctant to put forward a view, Ruhl finally offered: “How long would it take before we have more Mexicos and less countries that get themselves into trouble for no good reason?”

Mexico is on the verge of opening up its oil and gas industry to international players as it looks to ramp up production and open new reservoirs.

“How long will it take before people understand that energy is subject to the same sources, it continues to import most of its energy, though the government of newly-elected Prime Minister Narendra Modi plans to stimulate investment.

“The world is watching Nor- way...and as Mexico opens up its energy markets as well, there are a lot of thoughts there about what it will do to attract investments,” Dudley said.

Yergin added: “One of the changes we have seen in Mexico is that it has observed what has happened with the unconvention- al revolution in the US.

“Texas oil production now exceeds that from all of Mexico.”

On the spot: BP chief economist Christof Ruhl

basic forces that we have with everything else? It is not different in that respect,” said Ruhl.

“It is not something that should be protected in the interest of national security), but something that should be produced competitively for (the benefit of) everyone.”

Ruhl certainly sounds like he will continue to rattle some cages once he takes up his new position in the United Arab Emirates.
Big data now the big issue

OIL and gas companies that make the best use of massive new amounts of digital information – “big data” – will be the ones that remain most competitive, industry leaders heard on Monday, writes Rob Watts.

Rapid advances in computing technology and a trend towards more affordable sensors in billions of objects and devices linked over the internet are now making enormous amounts data available to businesses, including ones in the exploration and production sector.

“We are facing an unprecedented time,” said Ulises Mello, director of IBM Research Brazil, at the 21st World Petroleum Congress in Moscow.

Oil majors and drilling companies are now generating terabytes of data each day, he said.

Mello cited an example of an automated upstream Chevron facility off Nigeria that uses about 80,000 sensors, 1500 of which are located in so-called “intelligent” wells.

However, this sort of data creation and complexity is also creating challenges and in many cases is exceeding industry’s capability to process and make use of it.

Celestine Vettical, vice president intelligent energy products and technology at Baker Hughes said key challenges include the volume, velocity and variety of data.

Barents Sea to the fore

NEW exploration in the Barents Sea is a primary focus of development for the Norwegian Petroleum Directorate in its upcoming 23rd bidding round.

Rapid on 3D seismic data acquired in 2011 and 2012, coupled with a 3D survey conducted during the spring and summer of 2014, the federal agency is seeking partners to develop the largely unexplored region in the hopes of unlocking the estimated 8 billion barrels of oil equivalent estimated in the Norwegian Barents, said NPD director of exploration, Sissel Eriksen, during a technical session on Arctic exploration and production.

At present there are 61 offshore blocks in the Barents Sea in the public consultation process for the upcoming 23rd bidding round, to be announced later this year.

NEW oil and gas technology is crucial not only to drive innovation, but also in reining in costs, panelists said at the World Petroleum Congress Moscow.

The applications range from onshore oil and gas developments to offshore deep-water drilling as oil majors are under pressure from investors worldwide to pull back spiraling expenses of ambitious mega-projects, attendees heard on Monday.

“Through history it’s made a significant impact on what we’ve been able to develop as an industry,” Sara Ortwein, president of ExxonMobil upstream research, said of new innovation.

Proprietary drilling technology has helped the US supermajor shave 15% to 20% off its budget for the area in recent years, Ortwein said, while in onshore shale plays ExxonMobil has developed a “plugless” completion technique designed to bring production online more quickly, while driving costs down.

In deep-water, Brazil’s Petrobras has worked to standardise its offshore deep-water drilling as oil majors are under pressure from investors worldwide to pull back spiraling expenses of ambitious mega-projects, attendees heard on Monday.

“The backbone of the whole R&D programme is recovery,” said Henriette Undrum, vice president at Norway’s Statoil, stimulation of mature environments and a focus on increasing recovery have also been a valuable tactic for Saudi Aramco, vice president Khaled Al Buraik said.

“Capitalising your existing asset and try to extend the life... is really going to reduce your costs and will ensure the sustainability of that investment.”

Technology seen as key to reduce industry costs

New solutions sought as players come under pressure to cut back on the price of projects around the world

KATHRINE SCHMIDT

Moscow

EXHIBITION 2014 MOSCOW

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"Innovations in Polymers for the New Era of Green Technology and the World of Biopolymers"
NALCOR Energy plans to extend its three-year 2D seismic programme along Newfoundland & Labrador’s offshore into 2015 and include three areas largely unexplored and undeveloped.

The Crown Corporation, along with marine seismic contractors TGS and Petroleum Geo-Services (PGS), are targeting new areas of interest along the south coast in slope and deep water.

The programme will include two vessels and add 30,000 line kilometres of 2D seismic to its previously shot 47,000 line kilometres.

The MV Sanco Spirit has already begun shooting and the MV Atlantic Explorer will set sail in mid-July.

Nalcor’s vice president of oil and gas Jim Keating said it was approached by TGS and PGS to extend the survey based on interest from their client list.

With two-thirds of the current data already available to the market, Keating said the feedback to date has been very positive.

“Even though it’s early... that data was able to reveal to us these new basins which were announced last year,” he said.

“Even though the survey was of a regional nature, covering 1.1 million square kilometres — an area bigger than the Gulf of Mexico — we were able to intercept by serendipity many prospects which we’re in the process of mapping.”

Nalcor has been targeting foreign investors, global majors and experienced deep-water exploration companies with the data.

It has been touring the circuit of international conferences and forums to present its findings, as well as publishing its results in nearly a dozen journals.

“We’re seeing lots of analogues that were quite successful as play openers in other parts of the world in our own data set,” said Keating.

“Even though the survey was of a regional nature, covering 1.1 million square kilometres — an area bigger than the Gulf of Mexico — we were able to intercept by serendipity many prospects which we’re in the process of mapping.”

Keating added that the combination of the new data set and new licensing terms released by the Canada-Newfoundland & Labrador Offshore Petroleum Board in November 2015 is the “one-two punch that’s really going to get new entrants into Canada.

“We’re putting everyone on a level playing field in areas they’re interested in,” he said.

The initial seismic programme cost was estimated at up to C$80 million (US$73.7 million), of which about C$13 million was funded by the Newfoundland government on behalf of Nalcor.

The cost of the extended project was not revealed.
Topsides for KBB loaded out

HEAVY transport specialist Mammoet has loaded out the platform topsides for Malaysia’s Kebabangan North Hub Development (KBB) project, operated by Kebabangan Petroleum Operating Company (KPOC) in the South China Sea, writes Xu Yihe.

The deck, fabricated by Pasir Gudang-based Malaysia Marine & Heavy Engineering (MMHE), weighs 20,500 tonnes and is billed as the heaviest in Malaysia. The topsides is now being carried by the heavy transport vessel Xiang Rui Kou, leased from Chinese contractor Cosco, and will be ready for installation by Malaysia’s PBJV Group in a matter of days, sources said.

The field is located 130 kilometres off the coast of Sabah, East Malaysia, and is projected to produce first oil and gas later this year.

Classification agency DNV GL won a sub-contract from PBJV for engineering on the loadout, transportation and installation of the topsides. The installation work is expected to take less than a week once the deck arrives on location, sources said.

The jacket was built by Malaysia engineering contractor SapuraKencana and was installed by McDermott.

Aker Solutions of Norway has provided detailed engineering for the field development, which involves a single integrated drilling, production, utilities and quarters topsides mounted on a fixed eight-leg jacket in 142 meters of water.

The KBB platform will handle up to 825 million cubic feet per day of gas and 80,000 barrels per day of crude.

Gas and oil will be send to shore via 135-kilometer export lines. The Shell-operated deep-water Malikai field will also be tied in via separate, partially stabilized liquid and dry gas lines shortly after first gas from KBB.

KBB will be a hub for the development of deep-water and on-shore oil and gas assets off northern Sabah.

KPOC comprises of Petronas Carigali with 40%, ConocoPhillips Sabah Gas with 30% and Shell Energy Asia 30%.

INTERNATIONAL oil companies have to develop new business initiatives including equity building programmes with national oil companies that provide an opportunity to improve international players’ “licence to operate” in a host country, said Nikolay Seregin, director of the International Projects Department at Russian producer Bashneft.

Addressing delegates attending the World Petroleum Conference in Moscow, Seregin said that the ability of international oil companies to set up local content programmes that meet national oil companies’ long-term strategic goals is emerging as a key determinant of success or failure in market development.

He said one of the main aims of local content delivery is to create a strategy that develops good practice for capitalising on business benefits while minimising the challenges.

However, local content outcomes are not achieved quickly, he said.

“We cannot expect changes in local content and community investment practices to occur in the absence of the right dedicated incentives,” Seregin said.

Seregin said that one of the most challenging issues on the way to achieving effective local content outcomes is to strike the correct balance between national and corporate interests.

For example, in Myanmar a production sharing contractor is required to spend 25% of its annual budget to procure goods and services locally — when they are either available locally or rendered by Myanmar nationals.

While local content requirements aimed at promoting indigenous participation and fostering technology transfers, protecting and developing local industries are growing, governments and national oil companies should understand that international players are not charity organisations but profit-oriented companies that are driven to benefit their shareholders.

Seregin added that contributions to local organisations and communities should be transparent and appropriate and in line with the global strategy of the company.

He said that although international oil companies are nowadays being challenged by ever more stringent local content requirements, few nations have such a clear policy.

In order to operate within the legal framework of local content requirements in a host country, international oil companies need to adapt to and adopt these requirements, said Seregin.

Bashneft is a vertically integrated oil and gas company involved in oil and gas exploration, development and production of petroleum products in Russia.

Onshore liquefaction still has the edge over FLNG for now

SHELL might be at the forefront of floating liquefied natural gas technology but the Anglo Dutch super-major’s general manager of FLNG, Neil Gilmour, believes that onshore liquefaction will still be the workhorse of the global LNG industry, writes Amanda Batterby.

“Onshore LNG, there’s plenty of life in that dog — certainly if we start to get off some of the very hot costs that we’ve got in places like Australia,” Gilmour told delegates at the Best Practices Key-note session 1: Management of Arctic and deep water Mega Projects at the World Petroleum Congress.

Shell is continuing apace with its 3.6 million tonnes per annum Prelude FLNG that will be deployed off Australia and is seeing similar-size floating units in other areas, while the operator’s FLNG Lean solution envisages nominal production of 6 million tpa from fields with limited liquefied gas reserves. Prelude has been a regulatory, as well as technological, game changer for Shell and the industry.

“We had really no regulatory systems in Australia for FLNG. We had onshore and offshore regs and they didn’t really cater for FLNG so we spent two years working with the regulator and certain agencies to really make sure that the ground was paved for that,” said Gilmour.

“Floating LNG is something that’s at the forefront for many companies,” said ExxonMobil Development Company vice president James Flood.

Gilmour added that the FLNG world today encompasses a range of development solutions including “very tiny little barges next to piers, perhaps in the Gulf of Mexico; then some of the big things that we’re doing at the other end with Petronas somewhere in the middle”.

“We’re really at the very beginning of the journey.”
UK groups eye talks on offshore safety boost

Regulators start consultations over introduction of new European Commission directive

Rob Watts
Moscow

UK REGULATORS pushing ahead with implementing a European Union directive aimed at strengthening offshore safety standards expect to launch a formal consultation next month.

The UK has the largest offshore oil and gas industry union and how its authorities update the country’s sophisticated suite of existing safety regulations to meet the requirements of the directive is being closely watched.

The process of introducing new rules began following the Macondo disaster in the Gulf of Mexico in 2010, when the European Commission concluded the patchwork of national safety laws in the 28-member group did not provide enough consistency or assurance that risks from offshore accidents were being minimised.

The UK’s Department of Energy & Climate Change (DECC) and Health & Safety Executive (HSE) are jointly transposing the directive into UK law as it contains requirements relating to licensing, environmental protection, emergency response and liability for accidents, as well as safety.

Last week, officials gave industry an early insight into the likely content of the consultation document, which will contain the two agencies’ formal proposals for implementation.

HSE official Jim Neilson told an industry audience at lobby group Oil & Gas UK’s first annual conference in Aberdeen that legislation needs to be set before the UK parliament by late January to guarantee the directive is transposed into UK law as required by July 2015.

“It is quite a tight timeline for us,” Neilson said.

However, complex issues still need to be ironed out. For example, in relation to the definition of operaship, a key issue in determining who is liable for accidents.

On this issue, lines are being blurred because many companies holding operating licences in the UK North Sea now outsource the daily running of their installations to contractors, delegates heard.

Oil & Gas UK health and safety director Robert Paterson said: “We need to find a way of resolving this issue. It is causing an awful lot of debate and an awful lot of heat but not much light at the moment.

“WE need to get through that process and get to a much better position on this issue.”

Directive 2013/30/EU came into force on 18 July last year and offshore producing nations have two years from that date to include it in their national legislation.

There will then be a somewhat complicated transition period to July 2018, with different implementation deadlines for different types of installations, and whether they are already in place or planned.

Compliance checks on the transposition are due to start in late 2015.

One key feature of the directive concerns the way regulators organise, control and follow up their activities.

It calls for countries to establish a single “competent authority” to regulate safety and environmental protection that is shielded from conflicts of interest with licensing or economic promotion of offshore activities.

In the UK, the HSE is currently responsible for safety and the DECC is responsible for environmental protection.

Neilson said the UK’s proposed option for delivering the competent authority is for DECC and HSE to work together under an enhanced memorandum of understanding, similar to the COMAH model that regulates onshore major accident hazard installations.

Meanwhile, the Wood Review’s proposals to take the bulk of licensing responsibilities for the UK continental shelf outside DECC and to place them in the hands of a well-resourced regulator operating at arm’s length from the government will also help meet this requirement of the directive.

The UK, Denmark and the Netherlands, with mature industries, are expected to see the least change to regulations. However, workloads are expected to increase substantially due to the number of offshore assets to be covered.

Meanwhile, emerging producing nations in the Mediterranean and the Black Sea nations will have to develop entirely new regulatory regimes, although they will apply to fewer installations.

Neilson said previously it does not plan to allow the EU any say in how it handles safety on its offshore installations.

The non-EU member says the offshore safety directive falls outside the scope of the European Economic Area (EEA) agreement, which ties the country closely to the EU.
Lamprell in rights issue

LONDON-listed Lamprell completed a rights issue targeted to raise $122 million that analysts said leaves the United Arab Emirates-based engineering specialist better positioned for medium-term growth, writes Bill Lehane.

About 83 million new shares from the Sharjah-based company’s rights issue were admitted to trading on London’s main market on Monday, where Lamprell was trading down around 1% at £1.50.

London-based analysts Investec said the rights issue, which clears the way for a $350 million debt refinancing, represented a bet on diluting earnings per share in the near-term in favour of “greater productivity, improved financial flexibility and enhanced growth in the medium-term”.

The market move is to raise proceeds of $122 million, with about half that to be spent on refurbishing Lamprell’s principal construction yard, Hamriyah, to increase automation and generate other production line improvements.

Investec said the refurbished yard’s better productivity should enable Lamprell to undertake more work (effectively increasing its yard capacity) while retaining these productivity improvements in its gross margin, as most of its work is undertaken on a fixed-price basis.

The analysts pointed to recent newbuild jack-up contract wins with Ensco and Shelf Drilling as having significantly de-risked Lamprell’s order book for next year, estimating that the UAE-based engineers now had orders to fill 66% of their targeted backlog for 2015.

In April, Lamprell landed a $90 million order from Ensco for a pair of jack-ups that came with options for another two units exercisable within six months.

Last month, the rig maker gained a $370 million contract from Shelf Drilling for another two jack-ups.

A further $11 million of the rights issue proceeds is going towards strengthening Lamprell’s balance sheet to help it compete for further new orders.

About $11 million from the rights issue is to go towards strengthening Lamprell’s balance sheet to help it compete for further new orders.

Global Financing

Oil and gas financing is growing more complex

Industry expected to require $1 trillion in capital per year over the next two decades, but expert says it can be done

KATHRINE SCHMIDT

Moscow

The oil and gas industry is expected to need financing of $1 trillion per year over the next 20 years, a steep requirement made more challenging by the complexity of exploration and production projects.

An ever more diverse mix of financing models will be required from private equity to local banks, but demand is expected to be met as the industry rebounds from the worst financial crisis since the Great Depression, Peter Gaw, Standard Chartered Bank’s managing director, oil, gas and chemicals, told panelists at the 21st World Petroleum Congress in Moscow.

“The real question is, can the market provide $20 trillion in capital for the next 20 years?” said Gaw, who is managing director of the bank’s global oil, gas and chemicals business. “The answer is yes.”

Today’s risk profile is different than in the past, with financial institutions forced to evaluate political and fiscal regime risk as national oil companies take up nearly 90% of resource control.

Other challenges are presented by frontier projects and unconventional oil and gas development, where project management can be the “major Achilles’ heel”, Gaw said.

Hybrid financing deals will become more common, Gaw predicted, as well as project-specific funds that are attracting interest from hedge funds and pension funds.

Private equity players, which surged to help finance the US shale boom, are also seen as on the rise, the panelists agreed.

That market is showing an appetite for different scopes of projects such as offshore deep water, as well as regions outside North America, in particular Latin America and Asia Pacific, said Andy Brogan, EY’s global leader of oil and gas transactions.

The trend comes as energy majors have yielded “lacklustre” returns over time on public markets, Brogan added.

Despite the challenges, even complex and expensive projects can be successful, with Russia’s $67 billion, 10 million tonnes-per-annum multi-phase Sakhalin liquefied natural gas project held up as an example. A range of players including Japan’s JBC and a consortium of other banks signed a 2009 deal to support the project, which also relied upon detailed production-sharing agreements and LNG purchase agreements, said Rob van Velden, finance director of the Sakhalin Energy Investment company.

Today, the company brings in about $10 billion per year from LNG sales and reported full-cost recovery in 2012.

Today’s financial institutions also look at factors such as environmental terms to protect grey whales in the region as well as close collaboration with the local government of Sakhalin island, where it is the largest taxpayer.

Gas from the project also provided feedstock to convert a coal plant to cleaner natural gas.
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The topsides for Statoil’s Valemon platform finally began its voyage to the Norwegian field at the weekend after sailaway from South Korean yard Samsung Heavy Industries.

The 9750-tonne deck departed the yard on Dockwise transport vessel Dockwise Triumph at 07:00 local time on Sunday, delayed from a previous schedule of early April because completion of the topsides required more time than originally envisaged.

The journey is estimated to take 45 days to complete.

The sailaway gives further impetus to the keenly-watched field project that marks the first time Statoil has built an entire topsides at an Asian yard.

The state-owned operator has secured the heavy-lift vessel Saipem 7000 to carry out topsides installation work at the gas condensate field in the North Sea during a late summer window, having missed an earlier available window due to the late sailaway.

A Statoil spokesperson said that if the Valemon topsides arrives in Norway before the vessel is ready to carry out the heavy lift, it will be taken to a Norwegian quay to remove equipment that was used to secure it during transportation. The company has said that the field remains on track for scheduled start-up in the fourth quarter.

Statoil had earlier refused to comment on whether cost of building the topsides had increased beyond the budgeted Nkr2.3 billion ($381.5 million) figure.

However, overall costs on the Valemon project are said to have risen by about Nkr2.6 billion compared with the original budget of Nkr19.6 billion, though this still remains within a 20% margin allowed for in the development plan.

The cost increase is attributed by Statoil to necessary modifications to be carried out on the Heimdal platform, as well as compensation to the Huldra licence for taking over the latter field’s pipeline, the need for an additional injection well due to new regulations and modifications to the newbuild rig West Elara.

Statoil is looking to tap recoverable reserves of 26 billion cubic metres of gas and 31 million barrels of condensate from Valemon.

The field straddles production licences 050 and 193 and lies in 135 metres of water about 160 kilometres off Bergen.

Total reserves of 206 million barrels of oil equivalent make the field one of the biggest undeveloped gas fields in the North Sea.

The field was initially discovered in 1985, with a further probe confirming hydrocarbons in 2006.

Statoil operates the Valemon Unit with a 53.8% stake. Its partners in the project are Petoro on 30%, Centrica on 13% and Shell on 3.2%.
TUNISIA

Medco takes Chinook stakes

Calgary-based player **sells Africa assets** to concentrate on developing **Montney and Dunvegan properties**

**BILL LEHANE**

London

INDONESIA’s Medco Energi has acquired stakes in eight Tunisian blocks in a $127 million acquisition from Canada’s Chinook Energy.

Chief executive Lukman Mahfoedz said the North African acquisition would “strengthen and expand the company’s global presence” by providing fresh development opportunities to support its growth agenda.

Calgary-based Chinook Energy said it was selling the assets to become a pure domestic oil & gas company focusing on development of its higher-margin Montney and Dunvegan properties in the Grande Prairie and Peace River Arch areas of western Canada.

Medco Energi is paying a base price of around $114 million for the eight blocks, plus a working capital payment estimated by Chinook Energy at $13.7 million.

The Jakarta-listed explorer said that the assets included five onshore Ghadames basin blocks situated in southern Tunisia near the border with Libya — Adam, Sud Remada, Bir Ben Tartar, Jenein and Borj El Khadra.

Three Pelagian basin blocks off the country’s north-east known as Cosmos, Hammamet and Yasmin, are also part of the deal.

Two of the blocks are producing, while another two are in development along with four exploration permits, Medco Energi said.

The Indonesian company said the stakes being acquired from TSX-listed Chinook Energy would add 2800 barrels of oil equivalent per day to its production and 12.3 million boe to its proven and probable reserves.

It estimates that in-fill onshore development potential at Bir Ben Tartar could send production on the assets up to 16,000 boepd.

A further 12.6 million boe could be added to reserves with the development of offshore pair Cosmos and Yasmin targeted for 2018, the explorer said.

Medco Energi previously held stakes in two other Tunisian blocks, Durra and Anaguid, before selling the interests to Austria’s OMV in 2011.
AUSTRALIA's Beach Energy has taken a 20% interest in an exploration permit in the offshore Otway basin in Tasmanian waters.

Beach has taken an interest in T49P exploration permit by paying $1 million to 3D Oil, which holds a 100% interest.

3D Oil is set to retain an 80% interest and operatorship of the permit, which is highly prospective for gas. The permit is located near existing offshore gas infrastructure. 3D Oil took its 100% equity interest in early 2013 via government gazettal.

According to 3D Oil, the permit has been lightly explored by a broad 2D seismic campaign, which is to be supplemented by a planned upcoming seismic programme.

The joint venture is planning a 755 square-kilometre 3D seismic acquisition planned for late 2014. "Eastern Australia gas markets are currently in a transition," 3D Oil said.

3D Oil is currently in discussions with other potential farm-in partners.

**Drillsearch ups value**

AUSTRALIA's Drillsearch Energy has increased the value of its offer to take over Ambassador Oil & Gas, adding an extra A$0.05 (US$0.05) cash per share.

Drillsearch chairman Jim McKerlie said this new deal would out-value the takeover offer from Magnum Hunter Resources.

The deal is now worth one Drillsearch share for every 5.4 Ambassador shares plus A$0.05 cents extra per share.

Ambassador's board has recommended that shareholders accept Drillsearch's revised deal.

Drillsearch recently took a 19% stake in Ambassador through an acquisition of more than 28 million shares.

Magnum revealed its intention earlier this month to make its own takeover offer, which would see it offer one Magnum share in exchange for every 27.8 Ambassador shares.

**Range share price jumps**

AN EARLY morning 15% jump in share price followed an announcement by Range Resources that it has received an independent reserves report.

Range announced on Monday that it received an independently audited increase in reserves across the company's onshore licences in Trinidad at the Beach Marcelle, Morne Diablo and South Quarry licences.

The share price jumped from a close of A$0.407 (US$0.50) on 13 June to a morning high of A$0.48. The company's proven and probable reserves have increased from 20.2 million barrels to 22.1 million barrels.

**Roc shareholders urged to support Horizon deal**

Meeting called by major shareholder planning motion to “frustrate” merger but independent report recommends creating “new Roc”

**Bianca Bartucciottot**

**Perth**

AFTER receiving an independent report supporting a merger between Roc Oil and Horizon Oil, Roc has recommended shareholders vote against a motion to “frustrate the merger”.

Grant Samuel & Associates has come to a conclusion that the merger is in the best interests of Roc shareholders.

Shareholders have recently received a notice regarding an extraordinary general meeting where they will have to vote to change Roc's constitution.

The meeting has been requested by investment house and shareholder Allan Gray, which is hoping to stymie the merger deal.

The report said the offer provides a number of benefits to Roc shareholders, stating the “new Roc” would be a much larger company than on its own.

“New Roc should be able to access both equity and debt capital on more attractive terms than those available to Roc on a standalone basis,” the report said.

"New Roc will have a broader array of assets within a geographically more diversified asset portfolio, although some shareholders may prefer to achieve this diversification directly through their own investment decisions.”

A major benefit was said to be the significant growth potential that the company can tap into through the merger.

The company’s asset portfolio “largely consists of producing assets that are approaching or are in production decline”.

"More generally, the size and enhanced financial flexibility of new Roc should give it the capacity to consider larger and potentially riskier acquisitions, developments or other growth initiatives than would have been appropriate for Roc on a standalone basis.”

It added that while it thought the terms were fair, this would change in different market conditions.

“In particular, the merger terms would become less attractive for Roc shareholders if oil prices were to fall materially or if the PNG investment environment was to significantly deteriorate.”

Allan Gray called for an extraordinary general meeting last month, calling on its 5% voting power to change the terms of the deal so Roc shareholders could have a final say in the decision.

Allan Gray managing director Simon Mafrica said the deal left Roc with less than Horizon.

"It is inappropriate for Horizon shareholders to determine the future for Roc shareholders because the merger will have a profound effect on our collective interests in Roc," he said at the time.

"Our request for the meeting is not about arguing the merits or otherwise of the merger, rather it is about giving Roc shareholders a voice and asking for the Roc constitution to be changed so that if Roc is issuing more than 30% of its share capital, Roc directors must first obtain shareholder approval.

"If 75% of the shareholders vote for this amendment at the EGM, Roc would then need to hold a meeting to determine if it should issue shares to Horizon.”

The proposed deal has been said to give power largely to Horizon shareholders and would leave Horizon boss Brent Emmett in charge of the merged entity.

Horizon and Roc unveiled the plan to merge late last month, which would see Horizon shareholders receive 0.724 Roc shares for each Horizon share they hold.

The companies together hold proven plus probable reserves of 36.9 million barrels of oil equivalent and best estimate contingent resources of 120.7 million barrel across assets in China, Papua New Guinea, Malaysia, Myanmar, Australia and New Zealand.
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