Dudley balances the books

THE oil industry has had a rough ride since the last WPC in Moscow three years ago, but BP chief executive Bob Dudley says investments in technology have given a big boost to operating efficiencies. “Today our cash margins in places like the Gulf of Mexico are better than they were when the price of oil was $80,” he tells Upstream.

Trump talks up LNG exports on visit to Europe

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Southern North Sea and its tight gas potential

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Iran investment bid
Country chases foreign cash to boost energy production.

Outages take a toll
Australia sees earnings shrink as troubles at LNG plants hit exports.

Martin Linge delay
Total forced to push back Norwegian field project after fatalities at South Korean yard.

Apache makes exit
US independent sells last of its assets in Canada as it refocuses portfolio.

Winds of change
Oil giants include wind as deepening part of offshore strategy.
WE ARE so excited to be here in Istanbul for the 22nd World Petroleum Congress with you after three years of planning, organising and hard work. As well as being known as the “Olympics” of the oil and gas industry, it is one of the most effective and most significant events in the world, bringing together the most important actors in the arena.

International oil and gas newspaper Upstream successfully mirrors industry facts and figures, discussions and includes critical reporting as well as strategic evaluations and detailed analysis on all issues affecting the global oil and gas sector. All readers will be able to follow up the greatest challenges and opportunities our industry is facing. The oil and gas industry will continue to serve affordable and sustainable energy to the world as long as the necessary capital expenditure, creative thinking, innovation and co-operation is provided.

Through innovative ideas and strategic evaluations, as well as the dialogue to be created between the key stakeholders during the 22nd World Petroleum Congress, we aim to sustain the long-term goals of the industry, effective and efficient provision of upstream, midstream and downstream activities and petroleum products in general to the benefit of all.

While designing the Congress we always keep in mind that access to energy is fundamental to improve people's lives. Therefore, all programmes are developed to discuss the solutions and development opportunities for a long-term perspective.

With the participation of heads of state, honorable ministers, 20,000 attendees, more than 500 chief executives, and highly effective decision makers and government representatives, 10,000 square metres of exhibition and more than 50 exhibitors, the 22nd WPC is the largest oil and gas event in 2017.

The in-depth technical programme covering the full spectrum of the sector, high-level plenary sessions, forums, best practice keynotes, and round table meetings will provide the expertise and knowledge the industry needs.

Energy related ministers of Turkey, Bahrain, the Russian Federation, India, and the United States will be addressing the Congress with former presidents and ministers with their significant expertise. Keynote speakers from countries such as Iran, South Africa and Qatar will be joining, as well as the presidents and chief executives of giant companies such as Socar, Royal-Dutch Shell, Woodside Energy, BP, DNV GL, IFP Energies Nouvelles, Chiyoda Corporation, Saudi Aramco, Total, GE Oil & Gas and ExxonMobil Corporation, together with the heads of the sector’s global influencing agencies and organizations such as OPEC and the International Energy Agency, and also special representatives from the United Nations and many more actors in the global oil and gas industry.

This incredible event is being organised by the Turkish National Committee of the World Petroleum Council under the auspices of the Presidency of the Republic of Turkey and full support of the Ministry of Energy & Natural Resources. On behalf of the Turkish National Committee, I wish a very successful Congress and encourage you all to explore all the opportunities the 22nd WPC and Istanbul offer.

Besim Sisman,
Chairman, WPC Turkish National Committee
Chief Executive and President,
Turkish Petroleum
Istanbul opens its doors

KNOWN as ‘the Olympics of the Oil & Gas Sector’ the triennial World Petroleum Congress is the oil and gas industry’s largest and most prestigious international event. The first World Petroleum Congress was held in 1933 by the World Petroleum Council.

The Congress covers all aspects of the industry from technological advances in upstream and downstream operations to the role of natural gas and renewables, management of the industry and its social, economic and environmental impact.

Today, 65 countries including Turkey are the members of the World Petroleum Council, the most comprehensive organisation in the industry.

The Turkish National Committee carried out its promotional activities with the motto “this time ISTANBUL”, and was chosen as the host city for 2017 during the Council Meeting held in Calgary, Canada on 23 October 2013.

During the closing ceremony at the 21st WPC held in Moscow between 15-20 June 2014, the Minister of Energy of the Russian Federation and the Minister of Energy and Natural Resources of the Republic of Turkey attended the handover ceremony of the Congress to pass the Congress from Russia to Turkey.

With the participation of accomplished experts in their fields, academicians, technical specialists, NGO representatives, presidents of international agencies and global decision makers, the WPC is a platform where people from all aspects of the industry gather to find real solutions to real problems.

The 22nd WPC will comprise plenary and keynote addresses from the leading IOCs and NOCs and international organisations plus an extensive technical Congress Programme covering exploration and production, refining and processing, transportation and marketing, investment and sustainability issues, social responsibility as well as HSE.

With over 600 international expert speakers, 50 Ministers of Energy from around the world, over 150 exhibitors including all major National and International oil companies, as well as the leading contractors and service companies which attract in excess of 10,000 visitors to the World Petroleum Congress, this remains the main event for the Oil & Gas sector.

We are looking forward to sharing the unique Turkish culture with guests from all around the world in one of the most beautiful and historic cities, Istanbul.

It is our pleasure to welcome you all to the 22nd World Petroleum Congress, which will surely be one to remember.

Kutluhan Olcay, Chairman, 22nd WPC Organising Committee

WPC Social Responsibility programme 9th July, 2017

FIND US!
The SR Global Village Stand will be on The Bridge, connecting the two exhibition areas in ICC and the Rumeli Hall, positioned next to the WPC Young Professionals Lounge.

The “Social Responsibility Global Village” stand will provide a hub for networking with experts and interested stakeholders and will feature a host of activities on innovative industry approaches and SR activities, including presentations, interactive discussions, kinetic “Green Pedal” energy stations, an interactive art panel, the school children’s projects about the green energy, the SR Art Gallery and the World SR Globe.

The 22nd World Petroleum Congress will generate a demand from its participants to show their REFRESHED ideas about Corporate Social Responsibility.

Key elements include:
1. WPC Excellence Awards for Social Responsibility
2. Congress Sessions on Social Responsibility at the 22nd WPC
3. SR Panels at the Bridge Auditorium
4. “Global Village” Stand Activities in the World Petroleum Exhibition

Each SR programme will be announced daily, please see the daily congress programme or follow us on our WPC 2017 application at the Social Responsibility section.
Sunday 9 July

**08:00 – 10:00**
**Women's Networking Breakfast**

*Speakers:*
- Meg O'Neill, Vice President, Africa, Development Projects, ExxonMobil Development Company, USA
- Burcü Gündüz, Executive Secretary, WPC Turkish National Committee and WPC EC Member
- Emeliana Rice-Oxley, Vice President Exploration, Upstream, Petronas, Malaysia

**19:00 – 22:00**
**22nd WPC Official Opening Ceremony & Dewhurst Award**

**Keynote Speakers including:**
- Jozsef Toth, President, World Petroleum Council
- H.E. Berat Albayrak, Minister of Energy and Natural Resources, Turkey
- Besim Sisman, Chairman, Chairman of the Turkish Organising Committee and CEO, TP, Turkey
- Alexander Novak, President and CEO, Saudi Aramco, Saudi Arabia

**Ceremonial Handover from:**
- Emeliana Rice-Oxley, Vice President Exploration, Upstream, Petronas, Malaysia
- Burçu Günal, Executive Secretary, WPC Turkish National Committee and WPC EC Member

**Presentation of the Dewhurst Award:**
- Rex Tillerson, Chairman & CEO, ExxonMobil, USA
- Lakhdar Brahimi, UN Special Adviser to the Secretary-General 2004–05

**Monday 10 July**

**08:00 – 09:30**
**09:30 – 10:30**

**Plenary 1: Building Bridges to our Energy Future**

*Plenary Hall*

**Session Chair:**
- Besim Sisman, CEO, TP, Turkey

**Keynote Speakers:**
- H.E. Dr. Mohammed Bin Saleh Al-Sada, Minister of Energy & Industry and Chairman of the Board, Qatar Petroleum, Qatar
- Rovnag Abdullayev, CEO, SOCAR, Azerbaijan
- Wang Yilin, Chairman, CNPC, China

**Plenary 2: Shaping the Future of Energy**

*Plenary Hall*

**Session Chair:**
- Besim Sisman, Chairman of the Turkish Organising Committee and CEO, TP, Turkey

**Keynote Speakers:**
- Emeliana Rice-Oxley, Vice President Exploration, Upstream, Petronas, Malaysia
- Burçu Günal, Executive Secretary, WPC Turkish National Committee and WPC EC Member

**10:30 – 11:00**
**Coffee Break**

**11:00 – 13:00**
**PRESIDENTIAL CEREMONY**

**13:00 – 14:30**
**Lunch Buffet**

**13:00 – 13:30**
**Break**

**13:30 – 15:00**
**CEO Panels**

**CEO 1 The industry’s response to the Paris Declaration**

*Hall 5*

**Chair:**
- Dev Sanyal, Chief Executive, Alternative Energy and Executive VP Regions, BP, UK

**Speakers:**
- Bjorn Otto Sverdrup, Senior Vice President Sustainability, Statoil, Norway
- Marc Hauchecorne, EVP Strategy and Business Development, Engie E&P, France
- Decio Oddone, General Director, ANP, Brazil
- Alparslan Bayraktar, Deputy Undersecretary, Ministry of Energy & Natural Resources, Turkey

**CEO 2 How to be competitive in a cyclical environment**

*Hall 6*

**Chair:**
- Mark McCollum, President and CEO, Weatherford, USA

**Speakers:**
- Steven M Greenlee, President, ExxonMobil Exploration Company, USA
- Arnaud Breuillac, President Exploration & Production, Total, France
- Toqer Red, Senior Vice President Project Development, Statoil, Norway
- Lorenzo Simonelli, President and CEO, GE Oil & Gas, Italy

**15:00 – 15:15**
**Coffee Break**

**15:15 – 16:15**
**CEO Panels**

**CEO 3 Diplomacy and dispute resolution in the oil and gas industry**

*Hall 7*

**Chair:**
- Sir Robert Fulton, Global Leadership Foundation, UK

**Speakers:**
- F W de Klerk, former President of South Africa and Nobel Peace Prize Laureate 1993
- Lakhdar Brahimi, former Foreign Minister, Algeria and UN Special Adviser to the Secretary-General 2004–05

**15:15 – 16:35**
**Expert Workshops**

**EW01 Carbon Emission Management:**
- Upstream and Downstream Best Practices & Opportunities

*Hall 5*

**EW02 Masterclass on Strategies & Techniques for Raising Capital for the Global Oil & Gas Industry**

*Hall 6*

**16:15 – 17:45**
**ST1 Risk management, resilience & adaption in a volatile World**

*Hall 5*

**Chair:**
- Maria Moraes-Hanssen, CEO, E&P, ENGIE, France

**Speakers:**
- Ahmed Kenawi, Senior Vice President, Middle East and North Africa, Halliburton, USA
- Orlando Velandia, CEO, ANH, Colombia
- Emeliana Rice-Oxley, Vice President Exploration, Upstream, Petronas, Malaysia
- Abdulmunim Salf Al Kindy, Director, Upstream Directorate, ADNOC, UAE
- Raad Alkadri, Senior Director, Boston Consulting Group’s Center for Energy Impact

**13:30 – 15:00**
**Technical Programme**

**Block 1: F1**
- Exploration challenges – how to reduce risk?
  - Hall 1

**Block 2: F2**
- Competitive refining technologies
  - Hall 2

**Block 3: F3**
- Opening up new uses and applications for gas
  - Hall 3

**Block 4: F4**
- Knowledge management
  - Hall 4

**Block 3: RT3**
- Role of gas in the energy mix in a volatile World
  - Hall 7

**14:30 – 16:30**
**WPC Excellence Awards Technological Innovation**

*Bridge Auditorium*

**14:30 – 16:30**
**WPC Excellence Awards SR Presentations**
BP to put its foot on the gas

In response to an Upstream survey of leading industry executives, BP’s Bob Dudley explains how his company adjusted to the lower oil price environment and how he sees the UK supermajor and the industry moving forward.

H

As the industry adjusted to the extent that companies can operate profitably in the current lower price environment for oil and gas? If not, what more needs to be done and by whom? DUDLEY: The short answer to that is yes. At BP, we have built in a high level of resilience to the current low price environment by improving our safety and operational performance. That means we’ve made our operations simpler, more reliable and more efficient.

We’ve also capitalised on opportunities that presented themselves during the downturn — opportunities that increase our growing portfolio of large, competitive natural gas projects. This shift toward gas will be a key part of the transition toward a lower carbon energy mix. We’ve also taken advantage of opportunities to deepen our position in low-cost oil developments.

I think it’s important for the industry as a whole to remember the lessons from the past few years and continue to work together to drive down costs. By working with our partners and suppliers on things like simplification and standardisation, we’ve reduced project costs by more than 50% in many cases and we need to maintain this cost discipline going forward.

UPSTREAM: What impact will climate concerns have on the operations of oil and gas companies over the next five years and beyond? Does the US decision to pull out of the Paris accords actually change that outlook?

DUDLEY: I think we’re already seeing momentum building across the industry to move toward the lower end of the carbon spectrum and it’s fair to say that BP was ahead of the curve in recognising the need to take action to address climate issues. Our deep experience in lower carbon energy is now more important than ever because it helps us understand the obstacles and opportunities presented. There’s no one solution to this challenge. That’s why we’re working on multiple fronts — to shift our portfolio toward natural gas, to grow our renewables businesses where profitable and venturing with other firms on innovative lower carbon energy solutions.

BP has long supported the Paris agreement, and we hope the US administration follows through with its intention to find a way for the country to re-enter the accord — or another mechanism for addressing the global climate challenge — rather than to walk away from it. BP continues to believe that it’s possible to provide the growing world population the energy it needs for economic growth while also helping to transition the world to lower-carbon energy.

UPSTREAM: Can large-scale, multi-billion-dollar conventional oil and gas developments, including in deep waters, compete for capital against short-cycle shale and unconventional developments in the US and beyond?

DUDLEY: The environment is going to reward businesses that can be really competitive, and we believe we are well positioned for that, working to a very disciplined capital framework while looking to grow. We already have a very robust portfolio and don’t need to do any big acquisitions. Having said that, if opportunities present themselves, like the partnership with Kossos in Mauritania and Senegal or renewal of our concession in Abu Dhabi, we can find ways to make them happen.

UPSTREAM: Where do you expect the oil price to be by the end of this year? And by 2020?

DUDLEY: There is a continuing need for projects like this and we are making them work. We’ve made a lot of changes in the past few years to be more competitive, we’ve got the business firing on all cylinders and we’ll keep working hard at that. During the down-turn in prices, we paused and refocused our exploration programme, we looked at the workforce we needed and adjusted, and worked closely with our third-party suppliers to capture deflation in the market and other efficiencies. At the same time, we invested in technology to boost operating efficiencies from our existing production wells and facilities. Today, our cash margins in places like the Gulf of Mexico are better than they were when the price of oil was $80.

UPSTREAM: What financing challenges does the industry face, and will addressing such challenges involve more mergers and acquisitions?

DUDLEY: The environment is going to reward businesses that can be really competitive, and we believe we are well positioned for that, working to a very disciplined capital framework while looking to grow. We already have a very robust portfolio and don’t need to do any big acquisitions. Having said that, if opportunities present themselves, like the partnership with Kossos in Mauritania and Senegal or renewal of our concession in Abu Dhabi, we can find ways to make them happen.

UPSTREAM: Where do you expect the oil price to be by the end of this year? And by 2020?

DUDLEY: It’s always difficult to predict prices, but we are seeing markets coming back into balance and we’re making our planning assumptions around a price of about $50 at the end of this year and about $50 to $55 over the next couple of years. For BP, what is more important than price assumptions is driving down our break-even price each year and thus making our business more resilient for a range of prices.
**MIDDLE EAST**

We need foreign investments in order to reach the envisaged 6 million bpd of crude oil and condensates output under the 6th (national) development plan.

Iranian Energy Minister Bijan Zanganeh

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**Trio sign up for green day**

**GAS SWITCH TO HYDROGEN BID**

NORWEGIAN state player Statoil, Swedish utility Vattenfall and Dutch state-owned Gasunie have signed a deal to look at converting a gas power plant into a hydrogen-powered facility, writes Anamaria Deduleasa.

The trio will evaluate the possibilities of turning Vattenfall’s Magnum gas power plant in the Netherlands green, as the potential emission reduction is 4 million tonnes of carbon dioxide per year.

The scope of the memorandum of understanding also includes exploring how to design a large-scale value chain where production of hydrogen is combined with CO2 capture, transport and permanent storage as well as considering potential business models, the companies said.

The Magnum gas power plant has three combined cycle gas turbines (CCGT) with a capacity of 440MW each. One CCGT emits about 1.3 million tonnes of CO2 per year.

To start, the companies will work on feasibility studies to evaluate the conversion of one of the three Magnum units to run on hydrogen. In addition, Gasunie will examine what infrastructure is needed for transport and storage.

According to the project partners, the results of the feasibility studies will form the basis for a decision on further progress. “We are still in an early phase and like all pioneer projects there are uncertainties that need to be addressed. But the potential CO2 emission reduction is significant,” said tense Rutmelhoff, vice president for new energy solutions at Statoil.

So far, high costs combined with lack of CO2 storage facilities have limited the development of a low-carbon value chain for hydrogen based on natural gas. However, Rutmelhoff said that “designing a large-scale value chain where production of hydrogen from natural gas is combined with CO2 capture, transport and storage can open up new business opportunities”.

Last year, the Norwegian government initiated a new national CO2 capture, transport and storage project. Studies confirmed the feasibility of storing CO2 on the Norwegian continental shelf, with high storage capacity and the potential to expand the facilities to manage additional CO2 volumes beyond the initial demonstration project.

“Making CO2 storage from other projects, including the joint Vattenfall, Gasunie and Statoil project, possible,” Statoil said.

**Iran banks on $90 billion foreign oil and gas cash**

**Country chases target figure from international investment as it aims to raise production capacity**

VAHE PETROSSIAN

London

Iran is counting on $90 billion in foreign finance for upstream oil and gas projects over the next five years, as it raises its production capacity for crude and condensates to 6 million barrels per day.

In the latest breakdown of Iranian requirements and targets following the signing of a $2 billion deal early this month with France’s Total to develop Phase 11 of the South Pars gas field, Iranian Energy Minister Bijan Zanganeh put overall investment in oil and gas at $200 billion.

About $70 billion of that amount would be for downstream projects, with the balance of $130 billion going to upstream projects, he said.

International oil companies are expected to provide 70% of the amount required for the upstream sector, he said.

“We need foreign investments in order to reach the envisaged 6 million bpd of crude oil and condensates output under the 6th (national) development plan,” Zanganeh said. The development plan ends in 2022-23.

Zanganeh did not specify the volume of condensates to be produced early next decade, but nearly all condensates will come from the South Pars field, where peak production is targeted at just over 1.1 million bpd.

The volume of oil suggested by Zanganeh’s stated targets would be 4.9 million bpd — about 200,000 bpd above the level discussed over the past two years by officials.

The minister’s comments suggest that the National Iranian Oil Company (NIOC) is hoping to exceed the official crude output target of 4.7 million bpd set for early in the next decade.

NIOC Deputy managing director Gholamreza Manouchehri earlier this year told Upstream that preliminary master development plans submitted by international oil companies over the past year indicate that production targets set earlier for both green and brown fields may be too modest.

With the right amount of investment and management, Iran’s overall crude production capacity could be raised by an unscheduled 3 million bpd over the next decade, he said.

That would take capacity to nearly 8 million bpd, with another 1 million in condensates.

However, experts say that such a massive programme would be very unlikely — with NIOC instead focusing on maximising recovery rates at the country’s ageing oilfields.
US President Donald Trump used his recent visit to Europe to promote the role of his country’s burgeoning liquefied natural gas industry in meeting energy demand that is heavily dependent on imports from Russia.

Ahead of his highly anticipated first meeting on Friday with Russian counterpart Vladimir Putin, Trump told an audience in Warsaw that states in eastern and central Europe could rely on emerging LNG export projects in the US Gulf and elsewhere to plug supply shortfalls, also vowing not to politicise the issue of gas trade.

“Let me be clear about one crucial point — the US will never use energy to coerce your nations, and we cannot allow others to do so,” Trump said at a press conference in the Polish capital before the G20 summit in Hamburg.

“You don’t want to have a monopoly or a monopolistic situation,” US network CNBC quoted Trump as saying.

Trump was speaking at a meeting of the Three Seas Initiative, a grouping of European nations including Poland, Lithuania, Latvia and Estonia that aims to promote trade and energy ties. The other members are Bulgaria, Romania, the Czech Republic, Slovakia, Hungary, Croatia, Slovenia and Austria.

Many European nations have a large degree of dependence on Russian gas imports to meet energy demand. Some importers worry about supplies being interrupted during times of political tension between importing nations and the administration in Moscow, with Ukraine in particular having found itself short of supplies in winter months.

“We are committed to securing your access to alternate sources of energy, so Poland and its neighbours are never again held hostage to a single supplier of energy,” Trump told the audience in Warsaw.

The US leader was speaking after Poland accepted its first cargo of LNG from the US last month, a shipment from Cheniere Energy’s Sabine Pass facility on the Louisiana coast. Lithuania will also soon receive its first cargo, while the UK was due to take its first this weekend, also from Sabine Pass.

So keen was Trump to push his country’s LNG sector that he offered to strike up a deal with Poland immediately, telling Polish President Andrzej Duda: “I think we can enter a contract for LNG within the next 15 minutes. Do you have anybody available to negotiate?”
Outages hit Australian exports

Government reduces its earnings forecast from LNG and warns of challenges ahead for its industry

THE Australian government has revised its forecast for export earnings from liquefied natural gas while also warning of challenges that could derail its bid to become the world’s largest LNG exporter.

In the government’s Resources & Energy Quarterly report, the Office of the Chief Economist largely blamed unplanned outages as the reason behind revising the estimated earnings from LNG exports down by A$1 billion (US$786.4 million).

During the recent quarter, Chevron’s Gorgon LNG project in Western Australia suffered yet another outage at Train 1, while the project’s second train was also shut down in March this year.

The Woodside Petroleum-led North West Shelf joint venture also suffered two outages at its Karratha gas plant in the June quarter. Those outages are understood to have affected multiple trains.

The report also noted that output at Woodside’s North West Shelf and Pluto projects had been affected by adverse weather conditions in the March quarter.

However, it was not all bad news for LNG with export prices rising 15% in the June quarter due to the lagged effect of higher oil prices in the early months of 2017.

Australia’s LNG exports over the 2016-17 financial year, which ended 30 June, totalled roughly A$22.7 billion and that figure is forecast to increase to A$37 billion over the next two years.

This will be driven by a rise in exports, from an estimated 31 million tonnes in the recent financial year, to 74 million tonnes by the end of the 2018-19 financial year.

Adding to the export volumes will be the start-up of three major projects over this period — Chevron’s Wheatstone project, Inpex’s Ichthys projects and Shell’s Prelude floating LNG project — which will bring Australia’s overall nameplate LNG capacity to 88 million tonnes per annum.

Australia is widely expected to overtake Qatar as the world’s largest exporter of LNG in 2019 when all nameplate LNG capacity to 88 million tonnes is expected to be online. The government expects LNG prices will remain near their current levels over the next two years.

The extent of the decline will depend on the cost competitiveness of Australian LNG projects and the amount of flexibility in Australian LNG contracts,” the report stated.

“LNG contracts often include clauses that allow buyers to reduce purchases to minimum ‘take-or-pay’ levels. It is possible buyers may utilise these provisions if oil-linked contract prices remain higher than spot prices, or if they become over-contracted for LNG.”

It also noted the Australian Domestic Gas Security Mechanism (ADGSM), which was announced by the government earlier this year and allows for the restriction of LNG exports if a shortfall is projected in the domestic gas market, could also have a potential effect on future exports.

Australian upstream industry body the Australian Petroleum Production & Exploration Association (APPEA) echoed the report’s warnings, noting Australia’s recent success in growing its LNG industry could not be taken for granted.

“While global supply capacity is set to increase from 285 million tonnes to 382 million tonnes by 2019, almost half of this increase will come from the five new export projects under construction in the US,” APPEA director Matthew Doman said.

“Qatar, the world’s largest LNG producer, has also signalled its intention to massively increase its own export capacity. So, Australia may soon find itself caught between an established LNG giant determined to regain its market share and an emerging challenger hungry for success.”

Doman also hit out at the government’s ADGSM initiative, saying a supportive policy and regulatory framework in Australia will be vital for the industry to meet those competitive challenges.

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Matthew Doman said.

“Policies that undermine our competitiveness or tarnish our high-cost, low-risk country but high-risk country,” he said.

“Policies that undermine our competitiveness or tarnish our investment reputation risk doing significant damage to our LNG industry and, ultimately, our economy.”
WPC YP Programme
Lounge & Auditorium

WHILE the 22nd World Petroleum Congress is opening its doors to the world, the WPC Young Professionals Committee will welcome students, young professionals, current and aspiring leaders throughout the week with inspiring and empowering activities. We invite all the Congress attendees to join us and continue building bridges between the generations. Indeed, the Young Professionals programme invites future and current industry leaders to connect and debate the future of oil and gas.

Offering glocal perspectives and led by an active team of volunteers, the YP lounge and auditorium will provide our guests with international and transgenerational networking opportunities, foster leadership skills today to serve the industry tomorrow, broaden technical knowledge by deep diving into the activities of the leading companies, and explore the new frontiers of oil and gas with reputed experts. As we also want to hear from them, students and young professionals will contribute to the oil talks and share their experience. We believe in a continuous and renewed generational dialogue, our industry leaders will devote their time and enthusiasm to mentor the most active participants to the programme.

Work hard, play hard. The World Petroleum Congress is the Oilympics. Students and Young Professionals will discover Istanbul and the industry value chain on Saturday. The best team will be awarded at the YP Lounge on Monday. Finally, on Wednesday evening, a special student and young professional gathering will be organised by the WPC YP Turkish committee to become familiar with their culture, cuisine and hospitality. Don’t miss this opportunity to have an unforgettable night in Istanbul.

The WPC YP Lounge will be on the bridge, connecting the exhibition areas ICC and the Rumeli Hall, next to the WPC Social Responsibility Lounge. We are waiting for you.

Ummugulsum Güneyligil
WPC Turkish YP Representative

Stephane Rousselet
WPC YP Committee Vice Chair

Students and young professionals at the YP auditorium of the 21st WPC in Moscow

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Southern North Sea approaches

Significant potential remains in area despite maturity of fields, with tight gas accumulations believed to hold up to 3.8 trillion cubic feet

ROB WATTS
London

In the next month, families will flock in droves to Skegness, Mablethorpe, Hunstanton and other seaside towns along England’s east coast. But as the holidaymakers eat their ice creams and stroll along the promenades, few are probably aware of the oil and gas industry that has a long and proud history in the waters off this flat, low-lying region of the UK.

After 50 years of production, the UK southern North Sea oil and gas business, a little like those slightly faded resorts, is past its peak. In fact, the situation is fast-approaching a critical juncture, as a mix of decreasing resources, ageing platforms and lower commodity prices conspire to make the remaining gas increasingly expensive and complex to access.

Production from a number of fields has been winding down and larger pieces of infrastructure — one notable example being ConocoPhillips’ Theddlethorpe terminal — have been earmarked for closure, leaving questions hanging over the future of several other fields that not yet depleted.

However, despite this advanced maturity and significant potential does remain.

Recent years have yielded a number of sizeable gas discoveries, while exciting new exploration is also ongoing.

The UK authorities and industry are also devoting plenty of time to a rejuvenation effort to highlight what does remain and hopefully change the industry mindset.

“The southern North Sea sometimes gets overlooked and overshadowed by the bigger developments in the west of Shetland and the central North Sea, but there is still a lot of potential in the area,” says Eric Marston, area manager for the southern North Sea and East Irish Sea at the UK Oil & Gas Authority (OGA).

“The southern North Sea is a viable, remaining basin, albeit with challenges, but nonetheless economic.” One big focus right now for the OGA is encouraging the exploitation of the southern North Sea’s tight gas, locked in reserves of low-permeability rock that need some sort of stimulation to get gas to flow.

In a new strategy document published last week, the OGA said the potential tight-gas prize in the southern sector could be a substantial 3.8 trillion cubic feet or even more.

Spread right across the southern sector, tight gas accumulations have often been disregarded as either too expensive or too risky by licence holders, who have tended to focus on less complex developments with lower costs and higher recovery rates, although some have had success.

At least 60% of undeveloped discoveries within the southern North Sea have 5% of known prospects are considered to be tight accumulations, the OGA believes.

Officials are conscious that companies need encouragement and assistance to find innovative business and technical solutions that will make exploitation economic.

Strategy hopes

Marston hopes that the new strategy will “raise the profile” of what is left for operators to chase, while also encouraging them to co-ordinate and collaborate their exploration and development efforts.

It will also hopefully raise the profile of the expertise that exists — but perhaps remains untapped — in companies across the supply chain, he says.

Beyond the immediate benefits of increased production and activity for the service sector, more tight gas development could extend the economic life of remaining infrastructure. It could also stimulate field redevelopment and economically marginal pools.

“We are trying to get companies to take tight gas seriously. We need to focus on what the future looks like,” Marston says.

He admits that the 3.8 Tcf number is “broad”, including a wide range of “opportunities”, from remaining gas accessible by infill drilling to undeveloped discoveries and prospects, as well as remaining reserves.

Marston also believes that figure — which, for example, does not fully represent the total prospect inventory in the southern North Sea — is probably a cautious estimate.

“We think that 3.8 Tcf will likely be conservative. If industry can really come together, there may be more. We believe there will be upside beyond that,” he says. Based on current gas price projections and analysis of operators’ work plans, the OGA expects exploration, appraisal and development drilling for tight gas to increase in the short to medium term.

Only two to four wells — one exploration and one to three development — are planned by operators this year in the UK southern North Sea.

Next year, however, drilling could leap to about 10 to 12 wells. Furthermore, an average of about eight wells per year could be sustained until mid-way through the next decade.

Marston cautions that most of these wells are not yet sanctioned so one measure of success for the new strategy will be if plans are converted into final investment decisions.

Clearly, for operators to make investment decisions they need confidence in the opportunity. Their ability to sanction wells will come from their ability to de-risk these tight gas opportunities.

That is where the tight gas strategy comes in. Hopefully it will help to build confidence.

“The measure of success will be if operators’ aspirations to drill translate into reality and in turn starts to unlock that 3.8 Tcf.”

Industry has now come
Open acreage to be made available when the UK’s 30th round begins

THE UK’s southern North Sea is dotted with numerous tight gas producing fields, some of which have been producing for more than 40 years, writes Rob Watts. The majority of tight gas fields in the Lower Permian Rotliegendes sandstones can be found within Sole Pit, the major inversion axis within the Southern North Sea Basin, where average permeabilities can be as low as one millidarcy.

However, fields on the fringes of the main Aesidian basin with sabkha dominated reservoirs outside Sole Pit can also be tight.

According to Westwood Global Energy Group (WGEG), more than 40 undeveloped discoveries have been drilled in the UK southern basin with tight gas Permian and Carboniferous reservoirs, holding total estimated resources of 2.4 trillion cubic feet.

Only eight of these discoveries have initial resources of over 100 billion cubic feet, says Dave Moseley, WGEG’s manager for northwest Europe.

Much of the total resource in the tight gas play was found prior to the turn of the millennium, with only 600 Bcf discovered between 2000 and 2016, partly reflecting the overall reduction in exploration drilling in the UK gas basin, Moseley believes.

Of the discoveries, approximately 50% are held under licence, with the remainder lying on open acreage.

These unlicensed discoveries are expected to be made available in the forthcoming 30th Round.

The operators of the licensed discoveries range from supermajors, such as ConocoPhillips, to small private companies holding previously awarded ‘promote licences’, such as OK Energy and Arie ne Petroleum.

Many of the early discoveries in the Carboniferous were classed as tight, but modern 3D seismic data assisted in identifying sands with better properties, such as in the CMS (Caister-Murdock) area.

Where developed in any thickness, the Zechstein carbonates are generally tight and only a couple of fields, such as Wissey, sustained any meaningful production, but were short-lived.

Tight gas fields generally require some form of stimulation from acid wash, through acid frac in vertical wells to extended reach horizontal wells with multistage massive sand propped fracs, such as at Clipper South.

Clipper South and Ensign, operated by Ineos and Centrica, respectively, were both brought on-stream in 2011 with initial reserves of 210 Bcf and 31 Bcf, respectively.

Clipper South has performed particularly well, whereas the Ensign field has underperformed reports WGEG.

Looking forward, the future development potential of tight gas discoveries appears to be limited, Moseley believes.

Cluff Natural Resources, a small publicly listed UK company, is attempting to progress two tight Zechstein discoveries, though it is having to seek third party funding in order to drill a proof of concept well.

Reduced exploration activity in the region means the addition of new tight gas discoveries is currently limited.

However, BP, with partners Perenco and Premier, is currently drilling a heavily deviated well targeting the Namurian to the south of the Ravenspurn field, which if successful has the potential to open up a new tight gas play in the region.

A sidetrack to the initial well, which spudded in December 2016, is currently drilling.

Hackathon spawns ideas for basin’s future

AS PART of the southern North Sea Rejuvenation Special Interest Group initiative, almost 100 industry representatives joined a brainstorming event in Norwich at the end of May to come up with ideas that might make UK tight gas developments cheaper and less technically challenging, writes Rob Watts.

Almost 100 ideas emerged from the “hackathon”, the latest in a series of UK industry events borrow ed from a computer programming industry idea to bring software developers together to solve problems.

“There is a significant prize for companies to access,” says Eric Marston, area manager for the southern North Sea and East Irish Sea at the UK Oil & Gas Authority. "Activity levels amongst operators with tight gas opportunities are on the increase. It is challenging work — difficult and expensive, but there is a clear appetite to unlock this remaining potential in the SNS. “We want people to learn from each other — to share the good stuff, the bad stuff, the lessons learned.”
The World Petroleum Council launches ‘Journey of The Drop 2017’, a news style film with ITN

THE World Petroleum Council (WPC) and ITN Productions have launched ‘Journey of the Drop 2017’, a news and current affairs-style programme, that explores the perceptions of the oil and gas industry as well as addressing the challenges for the future and the on-going contribution the profession makes to societies and economies across the globe.

Hosted by national news anchor Natasha Kaplinsky, ‘Journey of the Drop 2017’ looks at the extraordinary reach and influence that oil and gas has on almost every aspect of life. Many of us take for granted, or have little knowledge about how the energy sector influences our daily lives. In a world of increasing demand, the programme explores sustainable solutions for the energy needs of the 21st century.

‘Journey of the Drop 2017’ features a special report from India, looking at the influence access to clean energy has on communities across the country – and speaking to the people whose lives have been positively affected by the introduction of LNG.

During the programme, we also look at how the oil and gas sector is working to address the gender balance in the boardroom and beyond. Women currently account for around one fifth of the workforce across the oil and gas sector, with an even smaller fraction working in technical posts. This special report highlights how attracting and retaining the female workforce and creating greater gender diversity is a worthwhile and attainable goal for the profession.

‘Journey of the Drop 2017’ will premier at the 22nd World Petroleum Congress in Istanbul, Turkey. It features interviews with leading organisations including the Indian Petroleum Ministry and The Boston Consultancy Group, news-style reports, along with sponsored editorial profiles from BP, Goodwin International, Honeywell UOP, JX Oil & Gas, Price Forbes, Shearwater GeoServices and Shell.

ON THE eve of the official opening of the 22nd World Petroleum Congress the Turkish Organising Committee held their Welcome Reception for the other national committees of the WPC from around the world at the stunning setting of the Hilton Istanbul Bosphorus - Veranda Bar & Terrace. Attendees were also given a preview of the ‘Journey of the Drop 2017’ a news and current affairs-style programme launched by the World Petroleum Council and ITN Productions. Welcome speeches were given by the Turkish National Committee and the President of the WPC, Jozsef Toth.
INTERVIEW

On the eve of WPC 2017, Upstream surveyed many of the leading figures in the international oil & gas industry on topical issues shaping the sector. Sounding in here is DNV GL president Remi Eriksen

Has the industry adjusted to the extent that companies can operate profitably in the current lower price environment for oil and gas? If not, what more needs to be done and by whom?

ERIKSEN: The downturn was steeper than the industry was prepared for, it came on faster and has lasted longer than most of us expected. Cost-efficiency and smarter operations are still on top of the agenda despite many companies having successfully cut costs and reduced complexity substantially over the past few years.

I believe digitalisation offers opportunities for further efficiency improvements in the industry — beyond the traditional measures used so far. The promise of data-driven decision making, machine learning and automation is very attractive. But getting there is not easy. The key to unlocking further value is to start sharing data and to create new insights from previously unconnected data sets.

Upstream: What impact will climate concerns have on the operations of oil and gas companies over the next five years and beyond? Does the US decision to pull out of the Paris Agreement actually change that outlook?

ERIKSEN: I see two major forces driving change in our industries — digitalisation and decarbonisation. The next two decades will see big changes in the global energy mix as the world decarbonises and pursues energy efficiencies. It will happen on a scale not seen before. Despite this, oil & gas will play a significant role in the mix also in 2040 — in particular gas. Climate concerns will definitely put more pressure on the industry across the whole value chain — from how oil and gas are being produced to how end products are being used — both in terms of energy efficiency and emissions to air.

The US decision to pull out of the Paris Agreement is unfortunate, but could in fact lead to others wanting to do more, but maybe that is just my optimistic gene becoming dominant.

Upstream: Is gas becoming more attractive than oil to companies and, if so, what implications does that have for the business?

ERIKSEN: I believe in a higher uptake and a broader role for gas, especially in the road and maritime transportation sector. We at DNV GL have been promoting LNG as a fuel in the maritime sector for a long time and see clear advantages on CO₂, SOx, NOx, fine particulates and mercury and arsenic. With increasing volumes of LNG, we see a market where gas is traded in smaller volumes for shorter contract periods and this may enable a faster and larger uptake of gas.

For Europe, I have a question mark about the European Union’s gas strategy. The EU has a huge potential to have a very cost-efficient and climate friendly energy system with a combination of renewables and gas, and a greening of the gas mix itself. I have often referred to this as energy convergence. However, right now, their commitment to gas seems less strong.

Upstream: Can large-scale, multi billion-dollar conventional oil and gas developments, including in deep waters, compete for capital against short-cycle shale and unconventional developments in the US and beyond?

ERIKSEN: The number of large-scale conventional projects is on the rise and they are competitive. The market is more selective than before, so only the premium ones are moving forward.

The industry has had a pause for thought about the way offshore fields are being developed and this has certainly given smarter and more cost-efficient solutions. The number of final investment decisions for large developments will be bigger in 2017 than in 2016. The question now is whether we as an industry can deliver on these promises in practice.

Upstream: What financing challenges does the industry face, and will addressing such challenges involve more mergers and acquisitions?

ERIKSEN: The number of mergers is increasing, as is normal for an industry in troubled waters, and our annual survey among senior industry leaders indicates that this will continue for some time. Mergers offer an attractive proposition of cost synergies that are important in the current cost-sensitive environment. We have just been through a large merger ourselves, and the benefits are real and significant.

Furthermore, I see international oil companies reorganising their portfolio in line with more targeted strategies, resulting in sales of (now) non-core assets, which again offers opportunities for more specialised and niche players.

Upstream: Where do you expect the oil price to be by the end of this year? And by 2020?

ERIKSEN: I don’t usually bet on the outlook for the oil price, but internally we are using a “lower for longer” scenario and operate with an expected bandwidth of $40 to 60 per barrel towards 2020.
Total forced to push back Martin Linge date again

Fatal crane collapse at Geoje yard has knock-on effect as work on topsides is delayed and project off Norway falls further behind schedule

EOIN O’CINNEIDE
London

TOTAL has delayed start-up of its Martin Linge project off Norway by another year following an accident at a South Korean shipyard in May that left six workers dead.

The 1 May crane collapse at Samsung Heavy Industries’ Geoje facility led to a downing of tools and thus has caused delays to topsides sailaway, which has had a knock-on effect on planned installation work at the field development, where Total is joined by Norwegian duo Statoil and Petoro.

Upstream reported in early June that the Martin Linge project was facing further delays of up to a year following the fatal incident at Samsung as the partners were said to be of the view that it made sense to ensure that the platform modules were completed before sailaway.

Six people were killed and others injured after a crane collapsed at the Geoje yard on top of a module being built for the Martin Linge development. All work at the yard was suspended for several days, while all work on the Martin Linge project at Geoje was suspended until 1 June.

Total wrote in a statement this week: “As a result, the shipping of the Martin Linge modules from the South Korean yard to Norway will be delayed.

“The installation of the modules and lifting operations, which can only be carried out during summertime given weather conditions in the Norwegian North Sea, had initially been planned for summer 2017 but have now been postponed to summer 2018.

“Therefore, given the hook-up and commissioning operations, production start-up has been delayed to first half 2018.”

Upstream reported a month ago that work on Martin Linge at Samsung was complicated by uncertainties relating to the damages, the remaining workscope and the need for renegotiation of contracts for lifting and commissioning of the topsides.

In 2015, Total revealed that Martin Linge was delayed and would not start producing until the first half of 2018.

Earlier this year, Total announced that sailaway of the Martin Linge topsides modules from Samsung’s yard had been delayed from May to June. It added that lifting of the modules onto the pre-installed steel jacket was scheduled to be carried out by Hereema’s heavy-lift vessel Thialf in September.

The Martin Linge project is currently running about 26% over budget at Nkr35.5 billion ($4.24 billion today) in capital costs, according to figures from October last year. This is expected to increase further.

In the 2013 plan for development and operation of the field, Total assumed that the project would break even at an oil price of $59 per barrel.

Unrelated to the tragedy at Samsung, Total was criticised by Norway’s Petroleum Safety Authority (PSA) over the status of work on Martin Linge after an audit uncovered “serious” shortcomings within maintenance and electrical equipment.

The PSA audit report highlighted that the state of completion of the platform modules was not as expected given the short time span until sailaway, with outstanding carry-over work that could result in major commissioning challenges at the field location.

Total operates the Martin Linge field with a 53% stake, with Petoro on 30% and Statoil on 19%. The field lies 180 kilometres west of Bergen.

The French major also had components being built at Geoje for the Inpex-led Ichthys liquefied natural gas project off Western Australia and the Egina floating production, storage and offloading (FPSO) project.

Aker Solutions, the supplier of subsea equipment for the Aasta Hansteen development, will also deliver the single-slot subsea template, a suction anchor and umbilicals for the Sneffid North development.

The subsea template and suction anchor that will moor it to the seabed will be delivered by Aker Solutions from its Sandnessjoen plant in Norway. The umbilicals will be delivered by Aker Solutions from Moss.

Subsea 7 will deliver flowlines and spools in addition to performing all subsea installations, Statoil added.

All contracts covering the supplement to the Aasta Hansteen plan for development and operation are subject to the approval of the Ministry of Petroleum & Energy.

“Aasta Hansteen is a strategically important development as the platform and related pipeline open a new area in the Norwegian Sea for gas exports to Europe,” said Siri Espedal Kindem, Statoil’s senior vice president for operations.

Statoil operates the 2015 Sneffid North discovery with a 51% interest. Winterhall, OMV and ConocoPhillips are also joint stakeholders in the project.
Cantium buys US Gulf fields

START-UP NETS CHEVRON DEAL

PRIVATE equity-backed start-up oil and gas company Cantium has acquired a substantial package of producing assets from Chevron in the shallow waters of the US Gulf of Mexico, writes Luke Johnson.

Cantium, a Houston-based independent backed by York Capital Management and Sole Source Capital, said it has acquired Chevron’s Bay Marchand and Main Pass assets in the US Gulf.

The acquisition includes five fields located on the outer continental shelf and in Louisiana state waters. The fields boast about 100 active wells, 151 platforms, caissons and other offshore structures. The Port Fourchon onshore treatment plant is also included in the purchase.

No financial terms were disclosed. However, an entity called Cantium HoldCo disclosed in a filing with the US Securities & Exchange Commission (SEC) on 27 June 2017 that it had sold $16.2 million in a recent equity offering. The total amount in the offering was classified as "indefinite" in the filing.

Separately, on 5 July 2017, an entity called SPC Partners Cantium — presumably an affiliate of Sole Source — disclosed the sale of $13.1 million in an equity offering. No remaining equity is expected to be sold in that offering, according to that SEC filing.

Chevron confirmed the sale on Thursday afternoon, saying the company is “transitioning into a deepwater-focused business with fewer, more complex assets.”

The deal was finalised on 30 June. Chevron said, adding that regulatory approvals and transfer activities will be completed later this year.

“Chevron will continue to operate the assets until after regulatory approval is received and will maintain our dedication to safe operations during this transition,” a spokesperson said.

Cantium is led by chief executive Richard Kirkland and chief operating officer Mark Smithard. Kirkland spent years in management roles with Baker Hughes while Smithard worked for Texaco and then Chevron for more than two decades.

York Capital hailed the duo’s “broad experience in the Gulf and a history of safely managing these assets”.

“This acquisition demonstrates Cantium’s commitment to reinvigorating the Gulf of Mexico’s outer continental shelf,” Cantium said. “We are working with the Chevron team to ensure a smooth transition of operations and, we look forward to welcoming the Chevron employees and our team of renowned global experts.”

Apache to take its final bow in Canada with sale

INDEPENDENT CLINCHES DEAL TO SELL REMAINING ASSETS IN COUNTRY TO FOCUS ON CORE AREAS IN US, NORTH SEA AND EGYPT

CAROLINE EVANS
Houston

Apache is selling off its remaining Canadian assets for C$459.5 million ($354 million) as it shifts the focus of its portfolio to the US, the UK North Sea and Egypt.

The company agreed to sell its Canadian subsidiary to Calgary-based Paramount Resources. The transaction, expected to close in August, will add 1.6 million acres to Paramount’s portfolio.

The announcement follows agreements in June in which Apache agreed to sell its Provost assets in Alberta to an undisclosed privately owned company as well as its Midale and House Mountain assets in Saskatchewan and Alberta to Canada’s Cardinal Energy.

Apache expects to net $713 million from the transactions. It plans to use the proceeds to fund a portion of its 2017-2018 capital programme, to reduce debt, or to “improve overall liquidity”, the company said.

Apache also expects to allocate the $125 million it would have spent in Canada in 2017 and 2018 to other assets in its portfolio.

“This is shifting the focus of our portfolio to the US, the UK North Sea and Egypt. The company agreed to sell its Canadian subsidiary to Calgary-based Paramount Resources. The transaction, expected to close in August, will add 1.6 million acres to Paramount’s portfolio.

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“With our decision to exit Canada, Apache’s resulting global portfolio is more streamlined and our resources more focused,” Apache chief executive John Christmann said.

“Our strong positions and enhanced focus in our core areas will drive improvements to overall returns on capital invested going forward.”

For its part, Paramount will get 185,000 net acres in the Montney and another 45,000 net acres in the Duvernay. It also will get about 46,000 acres of undeveloped acreage in the Wapiti area of Alberta, which it plans to develop soon.

Paramount says the Wapiti assets are located within the core of the overpressured, liquids-rich fairway of Alberta’s Deep basin and have “multiple” intervals in the Montney formation.

The company plans to develop the assets using the successful full completion designs it has implemented at its Wapiti asset.

“We believe the 46,000 Montney acres we are acquiring at Wapiti are a continuation of Paramount’s liquids-rich resource play at Karr, where our drilling and completion programmes have been delivering record results for Paramount,” Paramount chief executive Jim Riddell said.

Paramount plans to fund the transaction with cash on hand and without assuming any debt.

The Apache assets also include properties in the Northwest Territories, ex-British Columbians, and north-west Alberta, as well as about 176,000 net acres of fee simple lands in central Alberta.

The company plans to “explore opportunities to monetise the fee simple lands and certain other properties”.

For its part, Paramount will gain additional acreage through a merger with peer Trilogy Energy, of which it already owns 15%.

Following both transactions, Paramount would have a strong Western Canadian footprint of 2.7 million net acres, fourth-quarter 2017 production north of 90,000 barrels of oil equivalent per day (35% liquids), and proven plus probable reserves of 600 million barrels.

The Trilogy deal is expected to close in September.

“Paramount, upon acquiring Apache Canada and merging with Trilogy, will become a Montney, Duvernay and Deep basin-focused intermediate exploration and production company with the financial strength to accelerate the development of a portfolio of top-tier resources, producing high-quality, low-cost liquids from high-quality Montney and Duvernay assets,” a Paramount spokesperson said.

“Paramount also believes this transaction will create a company with the financial strength to fund its operations without the need to raise capital in the public markets.”

“The integration of the two companies is expected to result in a combination of companies that will generate operational synergies, optimise cost structures, and provide a world-class development platform for the next generation of Canadian energy producers.”
INTERVIEW

On the eve of WPC 2017, Upstream surveyed many of the leading figures in the international oil & gas industry on topical issues shaping the sector. Here Lukoil president Vagit Alekperov answers the questions.

ALEKPEROV: 2016 was a challenge for our industry as the oil price was at its lowest level for 12 years. Despite that, thanks to large investments in the oil refining sector, Lukoil managed to overcome these challenges. We completed upgrading our refineries last year, as well as the addition of new oil processing units, at a cost of about $10 billion. As a result, we finished last year with record-high profits, just as the company turned 25 years old.

The oil price challenges also led to organisational restructuring in the company. We have been compelled to re-evaluate our assets and to sell those that were producing a low return. Today, we are working hard to improve our productivity.

The company is going through constant change, on the staffing level and in its corporate structure. We have already adapted to operate in the oil price range of $40 per barrel, though we have penciled in an average price of $40 per barrel in our budget for 2017. The company is demonstrating a good performance that is confirmed by its free cash flow.

UPSTREAM: What impact will climate concerns have on the operations of oil and gas companies over the next five years and beyond? Does the US decision to pull out of the Paris Agreement actually change that outlook?

ALEKPEROV: Lukoil was the first among other major Russian oil producers to take real action to reduce flaring of by-pass gas, long before Russia adopted obligatory demands to do that in its legislation.

Today, Lukoil is among the leaders in utilising by-pass gas, achieving a 92.1% utilisation rate in 2016. Lukoil has also switched to producing motor fuels of the fifth and sixth generations that considerably reduce the amount of carbon dioxide emitted by cars and trucks.

Additionally, Lukoil has been installing wind and solar energy generation facilities for its own and local community needs in the regions where it operates.

We take a positive approach to joint efforts by countries to reduce atmospheric emissions. This improves not only the quality of the air that we breathe, but also promotes technological progress in the modern energy industry.

UPSTREAM: Is gas becoming more attractive than oil to companies and, if so, what implications does that have for the business?

ALEKPEROV: Today, we are considering a number of projects that are aimed at using gas in the chemical business. These projects are aimed at monetising our gas reserves. We have installed facilities in Nizhny Novgorod that convert gas into propylene, polyethylene and polypropylene. At the Stavrolen gas processing facilities in the town of Budennovsk, we are considering the possibilities of adding chemical processing units.

Our goal is to use some of the gas coming to the facilities from our Caspian Sea offshore fields for chemical production, rather then sending all of it into the Gazprom-operated trunk pipeline network. Among potential products to be produced are methanol, urea and ammonia. These projects will be more detailed once we approve our next 10-year development strategy.

Meanwhile, Uzbekistan is the chief focus for the company in its gas strategy and Lukoil is actively working on several gas projects in that country.

UPSTREAM: Can large-scale, multi-billion-dollar conventional oil and gas developments, including in deep waters, compete for capital against short-cycle shale and unconventional developments in the US and beyond?

ALEKPEROV: Investors will still be attracted to challenging oil development projects just because the demand for oil is set to grow in the long term, while the volume of explored and confirmed reserves will continue to decline.

Lukoil has already gained extensive offshore experience compared with other Russian oil producers. In West Africa, we operate projects with a water depth of 2800 metres. We continue to drill wells off Nigeria, Cameroon and Ghana.

In the Caspian Sea, we discovered a new oil and gas province where production is conducted from ice-resistance platforms. These developments have been challenging, but due to the quality of produced oil, high well flows and the close location of oil reserves to refineries and markets, as well as government-provided tax breaks, such offshore projects will remain attractive to investors.

However, I believe that it is not economically effective to develop oil in the Russian offshore Arctic zone today. If the oil price remains at $50 per barrel, Russian Arctic projects will be delayed for a considerably long time, mainly because of their geographical location.

Today, our priority remains to improve production efficiencies at our oilfields and increase the recovery ratio to the 50% target, as well as to look at vast unconventional hydrocarbon reserves that we have in abundance.

We are targeting the Bazhenov layers in West Siberia and testing various technologies to find the key to open commercial production from these reservoirs. I am confident that we will be able to discover the way to commercialise the Bazhenov reserves in the next several years because it is our future.

UPSTREAM: What financing challenges does the industry face, and will addressing such challenges involve more mergers and acquisitions?

ALEKPEROV: The stability of the tax regime is the key condition for investments into oil and gas projects. Our industry requires long-term planning for periods of between 15 and 20 years. Hence, investments into oil and gas have the most success in countries with transparent legislation for the energy industry.

Based on that assumption, we have recently sold our assets in the Baltic states, Poland, Ukraine, central European countries such as Hungary, the Czech Republic and Slovakia.

Meanwhile, we have decided to continue operating refining assets in Turkey, Bulgaria, the Netherlands and Belgium as they enable profitable work in marketing of oil products.
Oil giants continue offshore push

Any doubts that offshore wind is now deeply embedded in the strategies of some of the world’s biggest oil groups were settled at OWE 2017

SOME of the boldest demands and most forward-looking statements at the recent Offshore Wind Energy 2017 event in London came from oil and gas groups, which are continuing their push into wind at sea.

Shell’s executive vice president for new energies, Mark Gainsborough, suggested the offshore wind industry should think bigger, and instead of organising the next tranche of tenders driven by 2030 national targets, much bigger projects of up to 10 gigawatts should be designed.

In this vision, the mega-projects should be built around an anchor tenant who would take the biggest risk for about half the project. Churning out several hundred wind turbines continuously like an offshore assembly line would lower costs further and stimulate economic growth.

Shell, which plans to spend around $1 billion per year for investments in renewable sources from 2020 on, behind the scenes is also lobbying the Dutch government to greatly scale up its already successful offshore wind programme.

The oil major last year won the 680 megawatt Borssele 3&4 zone off the Netherlands in a tender with a for the time very low winning bid of €54.50 ($61.07) per megawatt hour, showing it has the war chest needed to enter the offshore game seriously.

Statoil published its Energy Perspectives 2017 report during OWE that for the first time looks at the period all the way through to 2050.

In it, Shell – which already has experience in offshore wind at the UK fixed-bottom offshore arrays Sheringham Shoal and Dudgeon, as well as floating offshore wind pilots off Norway and Scotland – describes diverging scenarios for the future, all of which see global population growth translate into increased energy needs.

Renewable energy according to Statoil’s projections may soar from meeting just 1% of the world’s total primary energy demand currently to almost 20% in 2050, while oil reduces its share from 31% to 23% and gas remains at around 20%.

Chief executive Eldar Saetre thinks “growing in profitable renewables will give competitive advantages and provide attractive business opportunities in the transition to a low carbon economy.”

Statoil has the strategic ambition to allocate 15-20% of its annual investments towards new energy solutions” in 2030.

Its forays into the fledgling US offshore wind sector — Statoil recently won development rights for a zone off New York that could accommodate more than 15GW of offshore capacity — show that the company’s plan to move beyond oil and gas is not restricted to Europe, but is global. Denmark’s Dong Energy is in the course of completely selling off its oil and gas business to the UK’s Ineos in the third quarter, while it is on a good path to widen its offshore capacity to have stakes in 11-12GW of offshore installations by 2025.

By then it also plans to have commissioned 490MW in subsidy-free capacity off Germany. Oil and gas companies have ventured into renewables before, but often lost interest when profits were not as high as hoped or not immediate.

Think of UK oil major BP’s sale of its solar business earlier this decade.

But some factors have evolved – even when ignoring the pressing need for a less-carbon intensive economy due to climate change. Thanks to the US shale oil boom, oil prices are not recovering to levels guaranteeing oil majors lasting good profits, leaving the old oil and gas business model outdated.

As a consequence, the move towards renewables increasingly becomes a necessity, not just some fringe activity to greenwash a company’s image, if oil firms want to survive as energy companies.

The other major factor is size.
Offshore wind farms are becoming huge power plants at sea with a capacity of 700MW to 1GW or more, while state subsidies are rapidly falling. At these scales and prices, only large utilities or other companies with deep pockets like the oil majors can compete. The oil and gas majors will have to go through a learning curve just like any other company entering the offshore wind game. But with their experience from offshore oil and gas drilling, they don’t come unprepared.

Statoil’s executive vice president of new energy solutions, Irene Rummelhoff, sees the company’s plans to grow in renewables as an opportunity rather than a threat, “because we have an industry with immense growth potential in front of us, where we can play on the competences we have already developed.” It will be very interesting to see whether Shell manages another win at the tender in the third quarter of the 700MW Hollandse Kust South 1&2 zone off the Netherlands that is slated to be held during the third quarter.

But even if it does not, it is increasingly clear that oil and gas firms are to remain in offshore wind for the long run.

Oil giant Statoil, pursuing diversification, has successfully installed five wind turbines on floating foundations in Stord, Norway, writes Ole Ketil Helgesen.

The turbines, each of 6 mega-watts, will be towed to Scottish waters to form part of Hywind, the world’s largest floating wind project, located 25 kilometres offshore in 90 to 120 metres of water.

Each wind turbine is 175 metres high and all were assembled onshore and lifted onto their spar foundations by the heavy lift vessel Saipem 7000.

At location, the floating foundations in the Hywind project will be stabilised using ballast and anchored to the seabed with mooring lines.

Statoil and Masdar, its Abu Dhabi-based partner, are investing £200 million ($254 million) in the groundbreaking project.

Irene Rummelhoff, executive vice president of Statoil’s New Energy Solutions business, told Upstream the investment will be profitable.

“Statoil would of course not do this if it was not profitable. For us, we don’t come unprepared. We have to find new ways for our business,” Rummelhoff said.

Statoil is targeting markets in the Far East and US to expand its floating offshore wind business.

“We are in dialogue with authorities in Japan and some states in the US (including California), and we hope Hawaii will open a round for floating wind power already next year,” she said, stressing these are markets with a high concentration of consumers and where water depths preclude bottom-fixed turbines.

Asked if renewable energy projects can compete with Statoil’s upstream oil and gas projects, Rummelhoff said the company’s aim is to achieve comparable margins even if wind subsidies are removed.

The Hywind concept proved its effectiveness in 2009, when Statoil and Siemens Wind Power successfully installed a 2.3 MW Siemens turbine at the first full-scale floating wind turbine project, Hywind Demo.
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