



Energy Outlook

A View from Doha

Thegulfintelligence.com Knowledge Series

ExxonMobil in Qatar



The story of Qatar's natural gas development is an inspiration for the world. It shows how progress and prosperity are possible when people come together in an open market that enables long-term vision, human ingenuity and disciplined investing.

ExxonMobil's involvement in Qatar goes back decades. Most recently, we've helped develop 12 of the 14 LNG facilities which liquify natural gas, the world's largest LNG ships to carry it to distant markets and three terminals where the liquefied gas is regasified and distributed for local use in power plants, factories and homes.

ExxonMobil strives to be a good corporate citizen wherever we operate. With that in mind, we've focused our efforts on establishing a research facility at the Qatar Science & Technology Park, hired a national development manager responsible for the career development of Qatar nationals and we continue to invest in human capital through our work with Qatar University and Qatar Foundation.

Few nations in the world offer a more encouraging environment than the State of Qatar. We are proud to have been there at the beginning of Qatar's remarkable journey - with more than US \$16 billion capital employed to date. And we are honoured to work with the State of Qatar and with Qatar Petroleum each and every day to develop the country's energy industry and contribute to the community.

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Taking on the world's toughest energy challenges.™

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Here we go again - \$100 oil!



Will it be another roller coaster ride or have we moved to a new era of triple-digit prices, allowing countries and companies to plan accordingly?

IT DOESN'T seem so long ago that a million dollars was the WOW number. They even made TV shows about it – Who Wants to Be a Millionaire? Now the pop song topping the charts goes, “I want be a billionaire so frickin bad!”

The old saying of once in a hundred years appears under threat as editors scramble for new metaphors to describe once in a thousand year events: unprecedented popular uprisings across the Middle East and North Africa, never before recorded 9-scale earthquakes in Japan and biblical floods in Australia catch everyone off guard.

The world seems to have changed a lot over the last year. As Nassim Taleb might say, we have certainly had our fair share of Black Swans. Random, unpredictable events that can have a huge impact on our lives have helped

Crude break the vice grip of \$60-\$80. The Dow Jones and FTSE 100 stock market indices are screaming it's back to the races – don't miss the train and jump on board!

And yet, I find we are still caught in a supply-demand imbalance limbo land of far too many questions and very few answers.

If most of the graphs are pointing to the sky, why are interest rates still near zero? And why is the Federal Reserve quantitatively easing, i.e. printing as much cash as possible? And how should one interpret a falling Shanghai stock market over the past six months?

In the meantime, in my home town in Ireland, a million dollars has reclaimed its WOW mantle!

Sean Evers is Managing Partner of Gulf Intelligence



DOHA ENERGY FORUM Interview with His Excellency Dr Mohamed Bin Saleh Al Sada, Minister of Energy and Industry, Chairman and Managing Director, Qatar Petroleum.

Interviewed by Sean Evers, Managing Partner, Gulf Intelligence

SEANEVERS: *What is now the main focus of Qatar's energy industry? How do you see the future and what will punctuate the decade ahead?*

HE DR AL SADA: Qatar has made an extremely successful achievement by reaching the strategic milestone of 77 million tons per year of LNG. But that by itself is only a milestone – ahead of us are many milestones to come. That milestone entails the fact that we built huge assets, we have signed many contracts, we have been working very hard to be a reliable supplier, and this is what we have been able to prove over the past 14 years since we started to exploit LNG.

We now need to emphasize the efficiency, reliability and safety of our production facilities.

“The winners are those who come to terms with the new reality and move quickly to where the center of growth is.”

We need to look at exploration further—we have been opening new acreage for exploration in both oil and gas, and we really think that the potential of adding to our reserves is there. This is coupled with the potential of revisiting our existing producing wells where we think that with new technology in seismic studies and new production technology we will be able to add to our reserves.

We also plan to expand internationally and efforts have already started with the creation of Qatar Petroleum International – the international arm of Qatar Petroleum. International investment relations have already started and we have co-operation with many international partners, especially with those who are known to us like those who have been working in Qatar for many years. That said, we are very open minded to partner with everybody as we don't have any geographic preference and are open for any upstream or downstream projects.

The downstream projects still have great potential, both major projects as well as small and medium ones. Ahead of us is going to be a very challenging era and QP and the other government agencies supporting QP are geared for such challenges and different fields of development.

SEANEVERS: *How do you think the relationship between IOCs and NOCs should be reconfigured to meet the massive rise in energy*

demand forecast over the next 20 years, especially given the hundreds of billions of dollars of investment required?

HE DR AL SADA: I think the argument that IOCs and NOCs have conflicting interests is inherited from the past and is no longer valid. You can see the NOCs stretching to be international companies and having investments in all corners of the world and developing their own capabilities – operational and technological. So the clear demarcation line between IOCs and NOCs is diminishing with time. NOCs have the energy reserves and they need the technological and operational expertise from the IOCs, and they sometimes need the financial support – this era is seeing complementary roles between the two rather than conflicting roles. I think the demarcation line is diminishing with time as they manage projects together and establish joint ventures around the world.

SEANEVERS: *If shale gas continues to develop as a major source of new energy supply, what impact could it have on LNG?*

HE DR AL SADA: Today shale gas has important potential, especially in the US. How it unfolds in other areas of the world, we have to wait and see and watch closely. Technological advances have reduced the drilling and production costs of shale gas in the US. I would expect to definitely see more gas utilization in the US competing with coal. Natural gas has a great advantage, so its utilization will grow more and more in various sectors, especially power generation, replacing many of the coal-fired power stations. Although the production of shale gas has lowered the price of gas significantly, the lower price will increase the appetite for consumption and in so doing open up more and more markets for natural gas, especially as it is the cleanest fossil fuel.

SEANEVERS: *Does the development of shale gas in the US lower the opportunity for LNG in that market from what was originally envisaged?*

HE DR AL SADA: I think that this is true, but there is still a market for LNG in the US, and as you know the US is a liquid market and gas can be diverted from where it has been abandoned to where it is most needed, and this process is happening and can happen more if necessary. Economic growth in various parts of the world are not equal, with a shift toward the Asia Pacific region, so with



that there is also a shift of energy resources being diverted to the Asia Pacific region.

SEANEVERS: *Who do you think are the winners and losers in the energy industry because of the shift from West to East?*

HE DR AL SADA: The shift is a reality! By 2030 or so Asia will add something like 900 million people. Asia is releasing its economic potential and that will definitely require more and more energy sources. Regarding your question on who the winners and losers are – in my view the winners are those who come to terms with the new reality and move quickly to where the center of growth is, react positively to the change in the global economic pattern, and realize that shift quite early.

SEANEVERS: *How is Qatar positioned to service the massive surge in demand for natural gas here at home and from its neighbors?*

HE DR AL SADA: Thank you so much for this question. We rarely ask such a question because people are looking at the growth elsewhere. The Middle East has experienced huge economic growth and with it the need

for energy consumption. If you look at what has been happening over the past few years, you will see more and more Middle Eastern hydrocarbon production being diverted for domestic use. With regard to the gas issue, as you know the first regional pipeline is the one between Qatar and the UAE, and we have experienced some requests for LNG regionally.

I am not going to be surprised if LNG is going to be used more and more in the region as it is an existing solution, and the facilities are there for liquefaction and transportation, so it's obviously easier and readily available. But I am not sure if in a few years' time we will have the flexibility to divert LNG cargoes to Middle East customers because increasingly LNG contracts are being reformatted from flexible type of contracts in liquid markets to more long term.

The power generation demand in the Middle East is increasing hugely between eight to 10 percent annually – it's really a staggering figure. Qatar experienced probably the highest level of growth, two or three years



ago, at 17 percent, and the GCC is averaging between eight and 10 percent. So we have to work very hard to catch up with this demand.

SEAN EVERS: *What implications do you think the current political unrest in the Middle East and North Africa will have on the energy industry? Do you think it will have a long-term legacy for the region?*

HEDRAL SADA: The Middle East and North Africa is experiencing a face-changing moment that will probably last forever, and in the long term I believe that it is going to be positive. I am not pessimistic in that. In fact, on the contrary, I am optimistic.

The Middle East, which has 60 percent of the world's oil reserves and around 45 percent of the known gas reserves, has not been the most stable region. We have experienced a number of wars in the heart of the Gulf and yet the flow of oil and gas was hardly ever hampered. One major factor is that everybody, including the conflicting parties, in the Middle East and elsewhere, realize that they can differ drastically on many issues but they all agree that they must take whatever measures are necessary to keep the supply going. Today, for example, Libya's production has been disrupted but other producers have

made up for that loss in a very timely manner and global supply and inventories have hardly been impacted.

SEAN EVERS: *The region has survived many conflicts and oil has continued to flow, but the rise of piracy is becoming a significant challenge. What are your views on the threat posed by piracy in the Gulf of Aden and the major shipping routes?*

HEDRAL SADA: I agree with you that piracy is an important issue here, but I don't think it is attended to adequately on two important levels. Level 1: the world community needs to deal directly to mitigate or eliminate piracy through coordinated international efforts. However, even with the full success of internationally coordinated efforts, it is unlikely that we will be able to eliminate the piracy issue unless we attend to the root cause of the problem. This leads to Level 2: it is a Somali domestic issue and the international community must attend to this problem. Piracy is a consequence of a country in turmoil. The root cause must be dealt with – help this country get a good government that will be able to develop and install security domestically. That is the real solution, rather than focusing only on one symptom of huge domestic problems in Somalia.

Doha Energy Forum - Roundtable Discussion E.ON Ruhrgas

MODERATOR: DR DIETRICH GERSTEIN

What will be the global appetite for LNG in the coming decade? Is the market viewed as demand or supply constrained? How price sensitive are Asian and European buyers, and what will be the implications for flexible volumes with North America no longer likely to be capable of underwriting new developments through its deep, liquidly traded natural gas markets.

Results

- 1) LNG will grow in importance within the global energy mix. It will become a more accessible fuel (particularly for power generation) and feedstock.
- 2) Currently the marketplace is sensitive to price. The US shale gas 'revolution' has currently placed a drag on Atlantic pricing vs Asia and has given rise to the possibility of price negotiations, i.e. a buyers' market. It was noted that some Asian buyers are not committing at old price level expectations. The current 'surplus' of LNG into Europe has also made buyers very price sensitive compared to traditional long-term contract pipeline gas. (this has obviously changed with the Japanese disaster).
- 3) We will see a move toward liquidity as additional LNG producers enter the market, but the high cost of liquefaction and the cost of transport will keep LNG prices buoyant in the long-term. A wildcard may be the turnaround in the use of US regas terminals as they seek to export 'shale gas volumes' as LNG.

2:10 p.m. THINK ABOUT GTL JET FUEL AND ITS THERMOPHYSICAL PROPERTIES.
2:11 p.m. APPLY TO TEXAS A&M AT QATAR'S MASTER'S PROGRAM.



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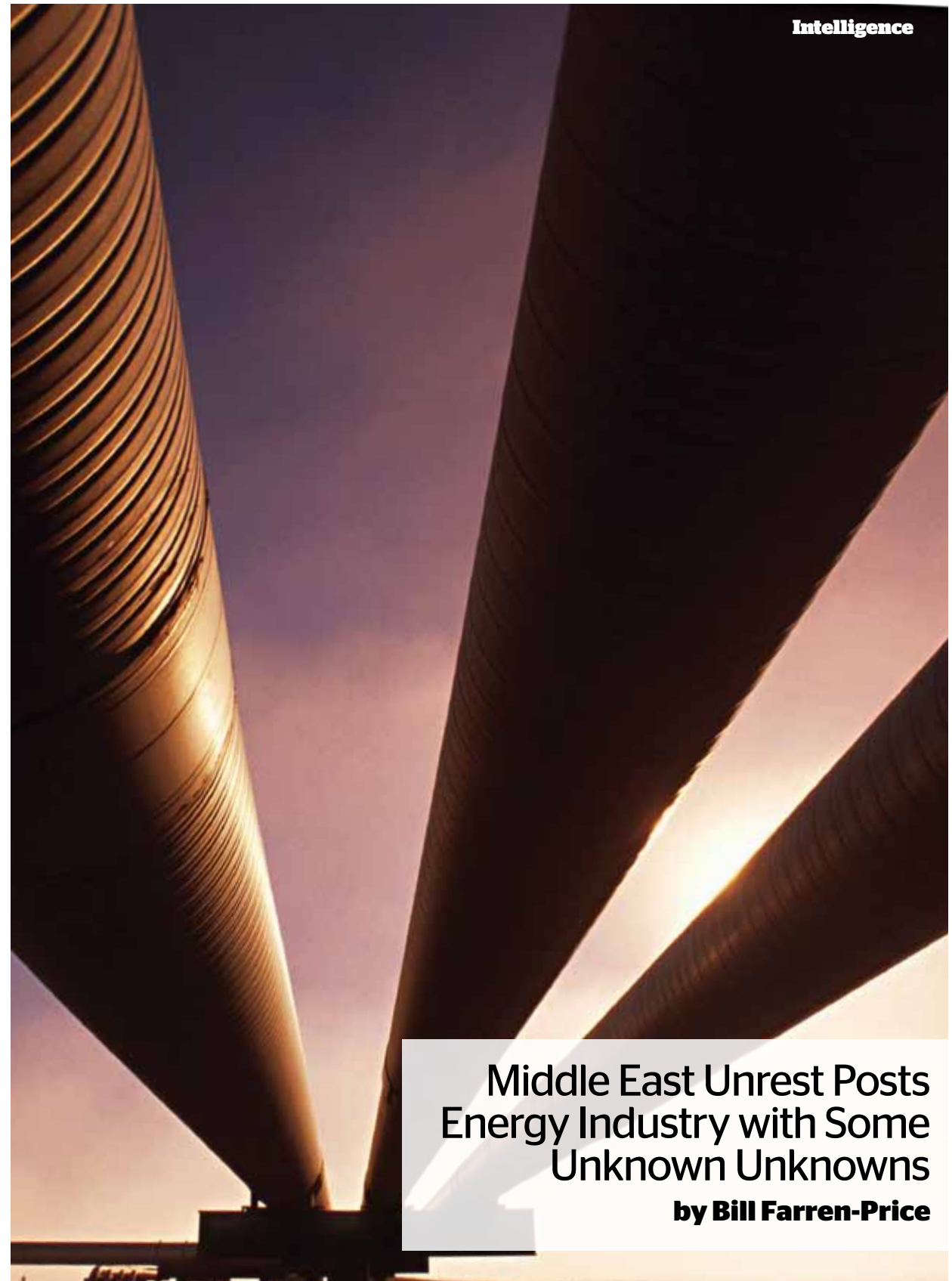
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Intelligence



Middle East Unrest Posts
Energy Industry with Some
Unknown Unknowns

by **Bill Farren-Price**



POLITICAL developments in the Middle East and North Africa (MENA) in the first quarter of 2011 defied the expectations of political analysts and journalists alike, driving policy-makers into uncharted waters as discontent sparked by worsening economic conditions quickly gave way to demands for democracy, freedom of speech and the easing of emergency constitutional restrictions.

While unifying themes in protests across countries in the region have been few and far between, the longevity of ruling elites came under the spotlight, as did weak governance and ineffective bureaucracy. In many cases social media overran traditional state-controlled communications, adding momentum to the unrest and sparking cross-border contagion.

For energy policy, there are a few important takeaways that are emerging. First, spare oil production capacity within OPEC and, more specifically, within major Gulf oil producing countries has been effectively deployed so far to make up for shortfalls in countries such as Libya, where fighting, the departure of foreign workers and the halt of port and some refinery activities has cut oil production.

Second, while major oil producers continue to be concerned about the long-term impact that elevated oil prices will have on the global economic recovery, oil price policy is on the back burner and will remain there while governments grapple with domestic challenges that threaten ruling parties and families.

Put simply, there is no appetite for dovish talk on oil prices at a time when regimes themselves appear to be under threat. That said, higher oil prices continue to feed inflation, which has been a key component of deteriorating living standards across the region as prices of imported food and other goods rise, presenting a difficult balancing act for policy-makers. Cash handouts and other new spending plans will in most cases have to be financed by higher energy export revenue. Plans to tackle state energy subsidies by raising fuel prices are also likely to be put on hold, underpinning surging regional energy demand growth and keeping international oil prices firm.

Third, post-revolutionary politics will offer no simple return to the status quo ante. Past decade's experience in Iraq has shown the limitations of democracy without security and post-authoritarian regimes can also be expected to struggle under the weight of popular expectation. The sudden weight of

generations of suppressed aspirations will be a heavy load to bear for the new political leadership.

In Egypt, political convulsions since the departure of president Hosni Mubarak indicate a mismatch between popular expectations and realities in a country that is still ruled by the military. In terms of energy policy, Egypt's over-extended natural gas export commitments, not least the unpopular agreement to supply Israel with gas, will likely be reviewed, with more gas likely to be ring fenced for domestic consumption.

“ Higher oil prices continue to feed inflation, which has been a key component of deteriorating living standards across the region.”

But again, identifying trends is difficult. The potential for a post-Gaddafi government in Libya could see Tripoli move to not only resume its shut-in oil production quickly, but also expand output, in an effort to regain the higher production levels the country enjoyed in the 1970s. Reconstruction and fresh development across a country that imports nearly all its food will have to be financed by energy exports. If the conflict develops into a political stalemate, prospects for resumed production and exports are much less clear.

For the global economy, the risks from the MENA region unrest are multi-pronged. Unless the political risk premium in oil prices can be deflated soon, higher oil prices and inflation will make life harder for monetary policy-makers, who are already talking about the need to exit from emergency interest rate levels in the OECD. The twin blow of a commodity rally and rising interest rates will make the trajectory of economic recovery even more uncertain.

On the political level, unrest in the energy-rich countries of North Africa and the Gulf also raises the risk of disruption to employment, especially among the army of foreign workers from nearby states, as well as the risk of major refugee movements into neighboring countries and Europe. Despite swift diplomatic agreement on Libya, agreement even between Western powers on how to deal with the fallout from the Arab Spring is patchy at best, and exhaustion with military conflict in Iraq and Afghanistan has left little enthusiasm for new ventures, even when the aim is humanitarian.



Bill Farren-Price is CEO of UK-based consultancy Petroleum Policy Intelligence.

Doha Energy Forum - Roundtable Discussion Maersk Oil Qatar

MODERATOR: SOREN FRANK

Much of the world's energy infrastructure needed in 2030 has yet to be built, posing an enormous responsibility and opportunity? How will the industry be reshaped by the confluence of policy, markets, technology, costs, and climate concerns - and the sheer scale of investment required?

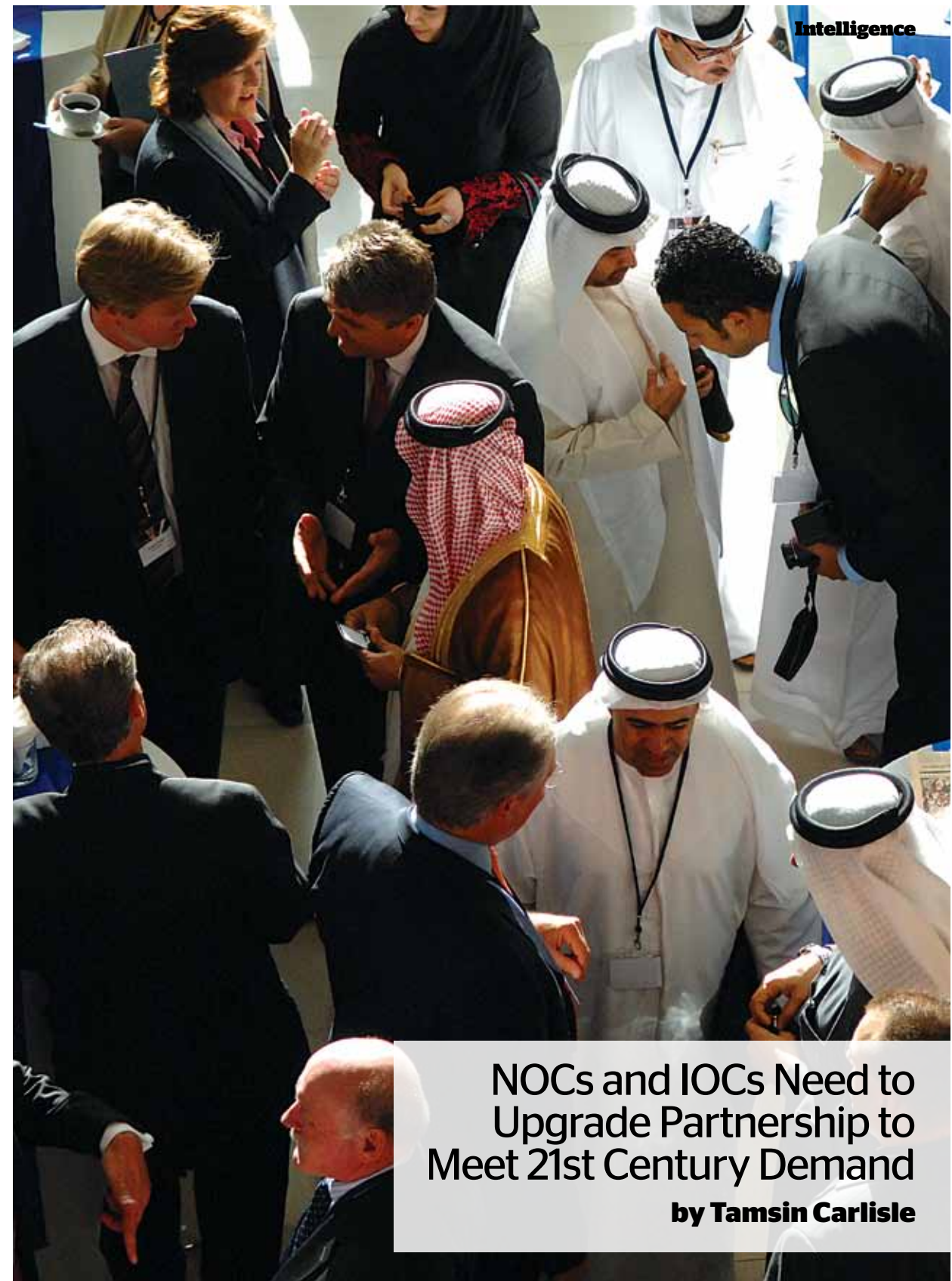
Results

- 1) It is important to communicate the value of the oil and gas industry to all stakeholders. The industry should be more transparent, clearly showing our commitment to burden the responsibility of delivering energy and other products to an increasing world population. Also, the manifold Corporate Social Responsibility and environmental activities should be highlighted and punctuated in all communications. Another important point to highlight is the multitude of products the industry is supplying to the consumer that cannot yet be replaced by alternative products.
- 2) In the future, the energy industry will have to engage many more partnerships to advance field developments, new technology and encourage larger scale investments. The relationship between the international oil companies, who control most of the cutting-edge technology, and the national oil companies, who control access to the reserves, is critical to future successful exploration and production endeavors. Also, to ensure the required technology developments are undertaken, the energy industry has to engage with other industries, such as mining or even high tech, to promote cross-fertilization between industries.
- 3) The focus of the energy industry will shift from the short term to be focused on recovery factors, thus promoting investment in improved and enhanced oil recovery (EOR) technologies. To realize higher recovery factors and long-term partnerships, the legal framework should shift to allow for the larger investments required for improved and enhanced oil recovery operations such as gas injection EOR projects.

Soren Frank, Head of Maersk Oil Research and Technology Centre



MAERSK
OIL



**NOCs and IOCs Need to
Upgrade Partnership to
Meet 21st Century Demand**

by Tamsin Carlisle



AFTER 50 YEARS that saw dominance gradually shift from international oil companies to the national oil companies, IOCs and NOCs will need to strike a new partnership balance in order to meet the demand forecasts in coming decades – new win-win pillars for a new 21st Century relationship.

IOCs and NOCs alike need to take a long-term view to partnership. There is a sense that the resource owners and the companies that extract oil and gas face huge common challenges that can only be solved if they believe they are in the energy business together for the long haul.

Something new in the air: the idea that NOCs, representing resource-holding countries, and their IOC partners should broaden their horizons across the world. They should look beyond the borders of one particular oil producing state and together pursue ventures in third countries, reinforcing the idea of being equal partners who share risks and rewards accordingly.

They should also jointly look beyond the oil sector to the business of extracting hydrocarbons in general – which of course include natural gas – and

even to opportunities in the broader energy industry, including nuclear and renewable energy.

In essence, there are five categories that could be characterized as “pillars” of support for IOC-NOC partnerships with the enduring strength to supply energy to the world for many decades to come:

Firstly, relationships between IOCs and NOCs should be for the long term, flexible partnerships that are capable of strengthening over time and evolving in response to changing economic, social and technological circumstances. The relationships should be sustainable, based on a respect for contracts but also encompassing a give-and-take attitude that flows naturally from the habitual collaboration between partners who have developed deep trust.

Ideally, perhaps an IOC should feel so thoroughly at home in the country of its NOC partner that it becomes invested in the country’s social and economic aspirations.

Secondly, increasing the total size of the energy pie is an important common goal for IOCs and NOCs acting in partnership, and should usually override concerns about the relative sizes of the revenue slices that



each stands to receive. Only by continuously expanding the pie over time can either class of company hope to stay in business for the long haul.

The preferred approach would be for IOCs and NOCs to collaborate on research and development efforts aimed at increasing oil and gas recovery and exploiting new energy sources through technological advances. The converse is that IOCs and NOCs should also collaborate on developing energy markets, so their products can be put to better use in enhancing the lives of more people around the world.

Thirdly, IOCs and NOCs should jointly focus on responsible energy production and consumption so that they can supply their customer’s energy needs in a sustainable fashion. That means not only maintaining and enhancing the reliability and security of energy supplies, but also doing so with minimal adverse environmental, social and public safety impact.

Fourthly, to ensure the long-term futures of their joint ventures, IOCs and NOCs should collaborate on industry-focused education and training initiatives. Investing in the development of a new generation of geological, geophysical and engineering talent is a must for energy companies and partnerships seeking to extract oil and gas

“IOCs and NOCs should jointly focus on responsible energy production and consumption.”

from ever more challenging reservoirs in more remote locations.

Joint IOC-NOC educational undertakings will also enhance the extent to which the IOC partners’ values become imbued with the culture of host countries, and vice versa.

Finally, adopting and improving global best practices in areas such as safety and environmental protection standards should be another important joint endeavor for NOCs and their IOC partners. The IOCs generally would have broader exposure to safety and environmental protection regulations and cultures in different parts of the world, but they should not discount the value of the NOCs’ knowledge of local cultural, environmental and reservoir conditions. They should work together to find optimal solution for recovering the most oil and gas from particular reservoirs in particular countries in the safest and least intrusive manner for local environments and communities. Major research areas on the hurdles facing the Arabian Gulf could provide new solutions to important problems.



Tamsin Carlisle is the Energy Correspondent with The National newspaper.

Doha Energy Forum - Roundtable Discussion

Senergy

MODERATOR: DAVID HODSON

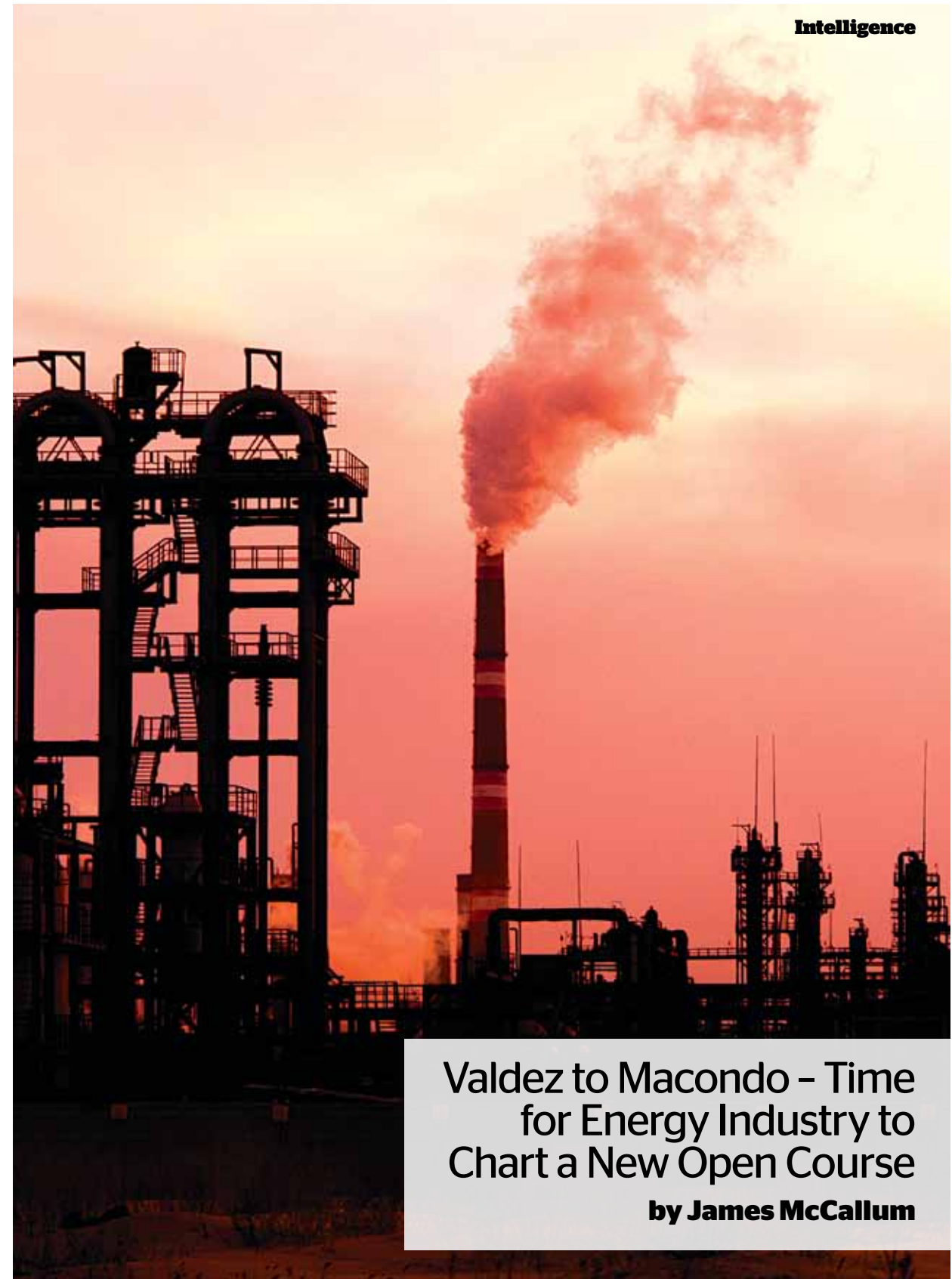
The ongoing shift of the center of economic gravity from the Atlantic to the Pacific will have major implications on trade, finance, investment, energy consumption, corporate strategy and geopolitical developments? Who are the winners and losers in the energy sector with this power transfer and why?

Results

- 1) The winners will be those who can understand and adapt to the changes imposed by the explosive growth in Asian energy consumption. This means NOCs and their international counterparts who have traditional relationships in the upstream sector will need to modify or reconfigure their relationships in the downstream sector in order to capture the opportunities and optimize performance. The downstream sector presents different issues and challenges than the upstream sector and this would need to be reflected in the NOC-IOC joint venture agreements, risk distribution, technology transfer, human resources, profitability, market growth, etc.
- 2) The winners will be those who enter into and control more of the logistics chain - transportation, storage and handling of products. The rapid growth in such a large geographic area has challenged the regional infrastructure capacities and opportunities exist for a further integration with regional partners.
- 3) The winners will also include the upstream producers who develop and utilize more flexible contractual arrangements in order to adapt to rapidly changing, shifting and growing consumer markets. Many contractual arrangements in the past were based essentially on long term, end users or off-takers without that much flexibility.

The global market has adopted a more nimble business mentality, with new technological developments propelling this to happen. However, the oil and gas industry is understandably slow to react as large amounts of capital investment are required in long-term fixed assets.

David Hodson, CEO of BluePearl Management



**Valdez to Macondo - Time
for Energy Industry to
Chart a New Open Course**

by James McCallum



THE ENERGY industry has been ineffective in framing the public debate on the role of energy and environment and it is time we collectively took the bull by the horns and turned this narrative around in our favor.

The dominant media narrative plaguing the industry since the age of environmental enlightenment dawned with the Exxon Valdez disaster 22 years ago has been that energy suppliers are bad and energy consumers, i.e. everybody else on the planet, is good. This dislocated storyline has been bolstered by a second, somewhat darker, more derogatory media narrative that goes something like Arabs/OPEC, who hold a majority of the world's energy reserves, are wrong and the West, the world's largest consumer of hydrocarbons, is conversely right.

The surprising thing about these naive and distorted Hollywood storylines is that the international energy companies and our

partners, the resource holding countries, have remained essentially silent for two decades on countering this tsunami of criticism that lays all the blame of global warming at the door of energy suppliers, and next to none on all of us who consume and demand these products every minute of every hour of every day.

The energy industry for the most part gave up the debate early on and abandoned the stage of public opinion to our harshest critics. We have been content to trawl through the halls of power to ensure our interests are protected in quiet political handshakes – well guess what, politicians often have even lower popularity ratings than energy suppliers.

It's time for the industry to come out of the closet and engage in redrafting these out of date narratives that keep people apart in polar opposite camps of distrust. Their lingering presence is not good for the planet, presents unwelcome challenges to economic growth

and threatens geo-political stability.

The story needs a new definition that acknowledges we are all stakeholders in this one-Earth boat of environmental protection and sustainable economic growth. The narrative needs to shift from an emphasis on supply, where the least environmental impact takes place, to a focus on demand and consumption where the majority of the negative impact from hydrocarbons takes place.

It is in all our interests to work together to secure the solutions to the big challenges for everyone's benefit – the reality is that those scientists who are most likely to have the biggest impact in combating CO2 emissions probably work for energy companies or are financed by its research budgets.

As an industry we need to put our head above the parapet and tell our story. Begin with trying to change the dynamic of the conversation, as Chevron Corporation has recently tried to do, demonstrating what the industry continues to achieve and contribute to the advancement of society.

All in all, it requires getting out from inside the energy bubble and initiating consistent and proactive engagements with all stakeholders, and not just when a disaster occurs.

Chevron launched a new global advertising campaign six months ago titled "We Agree." The campaign highlights the common ground it shares with people around the world on key energy issues. It also describes the actions the company takes in producing energy responsibly and in supporting the communities where it operates.

"We hear what people say about oil companies – that they should develop renewables, support communities, create jobs and protect the environment. And the fact is, we agree," Rhonda Zygocki, Vice President of Policy, Government and Public Affairs at Chevron, said in a statement.

Chevron has received a lot of criticism from the long line of cynics who scream double standards and hypocrisy anytime an energy company tries to use the collective phrase "We." For our critics it is key to maintain a "them and us" wedge firmly entrenched between the industry and society as a whole. The energy business must get its house in order to remove any soft underbelly of inconsistencies that provides others with the stick to beat us, as clearly we suffer from being seen as promoting self interest.

There are two ways to be famous: famous for your good deeds or infamous for your bad deeds.



“We need to put our head above the parapet and tell our story. Begin with trying to change the dynamic of the conversation.”

Some ideas would be, for example, to partner with independent stakeholders, i.e. invite recognized environmental activists to be non-executive directors on the board of energy companies; establish industry standards on transparency and solicit ratings from Transparency International in the same way as a corporation would request a credit rating from Moody's or Standard & Poor's.

Our industry needs to come together to rebrand as one – perhaps OPEC, the IEA and the IEF could include a category of membership or affiliation for companies in the same way as they have for countries.

Thought leadership is what is needed and maybe for all of us this begins at home. The irony is that for an industry that touches almost every human life on the planet, we have stood by and allowed our contribution to be dismissed and have been portrayed as the Planet Bad Guy.



James McCallum is CEO of Senergy, a global energy service company

Doha Energy Forum - Roundtable Discussion Shell

MODERATOR: SABEUR MANSAR

What role will the Middle East play in global energy supply and demand?
Will the region's economic growth form a third pillar along with India and China to support the global economy and future energy demand?

Results

- 1) The Middle East will play an increasingly key role in global energy demand. The region not only has the largest share of conventional oil and gas reserves (60 percent of oil and 45 percent of gas reserves), but also the cheapest extraction costs. In addition, the geographic location of these resources allows Gulf producers to supply customers in the West and the East at cost-effective rates. The large reserves coupled with significant spare production capacity will allow the Middle East to continue to play a balancing role in the energy market.
- 2) Energy demand in the Middle East is projected to grow by 70 percent to 1,006 million tons of oil equivalent by 2030 from 596 mtoe in 2008. Notwithstanding this rapid increase, the absolute demand level will still be a fraction of the total energy requirements in Asia, estimated at 6,540 mtoe by 2030. It is worth highlighting that the growth in the Middle East will be largely driven by natural gas. By 2030, oil demand will grow by a solid 40 percent to about 8.9 million barrels a day. In contrast, natural gas demand is projected to witness a 70 percent growth in the same period to about 573 billion cubic meters.
- 3) Environmental awareness will be a key factor in shaping the future energy pathways in the Middle East. The dash for gas in the region is partly driven by the relatively benign environmental footprint of natural gas in comparison to other fossil fuels. GCC countries are increasingly looking at LNG imports to augment indigenous resources to displace oil from the local energy mix. Kuwait and Dubai have already initiated LNG imports, while Bahrain is currently in the process of securing long-term LNG supplies.

Sabeur Mansar, Business Development Manager, Qatar Shell



Commitment to Qatar

Over 75 years of relationship with Qatar



Total, one of the world's largest oil and gas companies, is proud of its contribution to the country's rapid economic and energy development of its most valuable asset - its people. In the energy sector, Total has established various partnerships including: H. HASSAN FIELD, QATAR GAS FIELD, UQAP, PHM, SAHOO, QATAR.

In the Total Research Center Qatar (TRCQ), research studies and training of young people of Qatar will be performed to meet the energy challenges of tomorrow.

For the community, Total is actively involved in social activities such as sponsoring schools and education, sports and the environment. Our responsibility is to meet the growing demand for energy in a safe and sustainable way. www.total.com

Investment in Qatar is a key element of our strategy. We are committed to the development of the country.

Our energy is your energy

إن طاقتنا هي طاقتكم



TOTAL

Doha Energy Forum - Roundtable Discussion ExxonMobil

MODERATOR: BARTON CAHIR

What are the challenges and opportunities for natural gas in a low carbon world? The discussion was framed within the broader view of the Outlook of Energy to 2030, which ExxonMobil recently published, and it shows that future of natural gas offers more opportunities than challenges.

Results

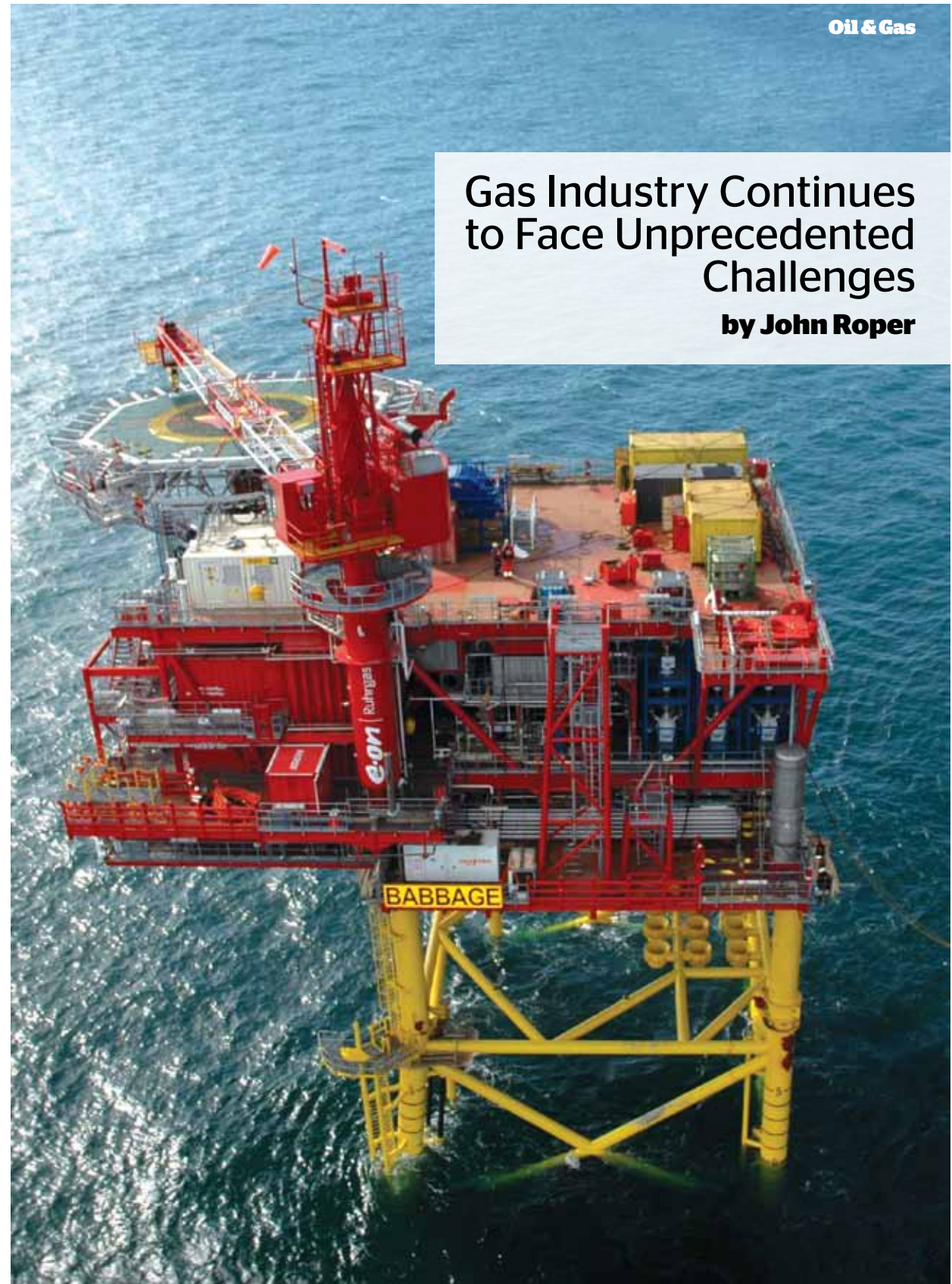
- 1) In the decades ahead, the world must both expand energy supplies and do it in a way that is safe, secure, affordable and environmentally responsible. Natural gas can and will play an important role in meeting this dual challenge. Growing populations, coupled with economic and social progress, means the world is going to need 35 percent more energy by 2030. And we will need to develop all reliable, affordable forms of energy and capture significant gains in energy efficiency to meet that demand.
- 2) The world's single largest energy source through 2030 will continue to be oil because of its importance as a transportation fuel. But overtaking coal for the No 2 spot is a cleaner-burning fuel that can help meet the world's enormous power generation needs: Natural gas. Producing reliable, affordable energy while also limiting greenhouse gases will lead to policies that put a cost on carbon dioxide emissions. As a result, abundant supplies of natural gas will become increasingly competitive.
- 3) Natural gas demand is rising everywhere, but growth is strongest in non-OECD countries, particularly China, where demand in 2030 will be approximately six times what it was in 2005.

Qatar's geography was initially viewed as an obstacle, as the country is far from the traditional markets. The challenge for Qatar was to find a solution to this obstacle and make investment in the North Field commercially viable. Technological and commercial innovations were critical in achieving a number of important milestones, which have resulted in Qatar becoming the premier supplier of LNG.

Barton Cahir, Vice President ExxonMobil Qatar

ExxonMobil

Gas Industry Continues
to Face Unprecedented
Challenges
by John Roper





OIL PRICES are being affected by the recent political upheaval in the Middle East and North Africa. The price of Brent crude is in the range of \$110-\$120 a barrel, as a geopolitical risk premium enters the market.

The recent tragic events in Japan, particularly the damage to the Fukushima nuclear power station, have touched us very deeply and given us cause for grave concern. I strongly believe that we will learn from the situation in Japan and that there is some rethinking to be done. As of today, it is clearly too early to have answers ready and consequences assessed. But I would not exclude that the future energy mix might be affected by the knowledge that we gain from these events.

We need to reorganize our energy systems. The decarbonization of the European economy will lead to a sustainable energy system for the 21st Century. The reorganization of energy infrastructure that we are all striving for in Europe is not a short-term project; it is a marathon. The natural gas industry needs to develop answers for gas to be a part of the future energy mix.

Like crude oil prices, benchmark natural gas prices in the West – notably at national balancing point (NBP) in the UK and Henry Hub (HH) in the US – have fluctuated significantly over the past few years. Prices plunged more than 50 percent in 2009 to \$4.75 per million British Thermal Units (BTUs) and to \$3.95 per million BTUs respectively.

In the US, the surge in shale gas production, which more than doubled between 2008 and last year, reinforced a further slide in natural gas prices.

In Europe, there has been a dramatic decoupling of oil-indexed prices and title transfer facility-indexed gas prices as a result of recovering oil prices and surplus gas in the market. This effect is so significant that “old” oil-indexed supply contracts are actively being renegotiated toward gas indexation to bring some sustainability back into the marketplace.

Looking forward, this year NBP prices in the UK are expected to slightly strengthen and, importantly for liquefied natural gas (LNG) suppliers, hold a significant premium over HH prices of about \$4 per million BTUs. Although demand for natural gas is



expected to recover, it is premature to talk about a turnaround in this trend, which remains lacklustre.

The development of new LNG importers from the Americas and the Middle East, which will have an effect on supply availability, is a topic of interest in the gas market. This region, although blessed with large natural gas reserves, has in recent years faced a substantial gas deficit, as a function of regional infrastructure developments that have significant power generation requirements.

Kuwait and Dubai are already reliant on LNG imports to supplement domestic gas supply, and the region is expected to import significantly more LNG in the coming years with the potential introduction of Bahrain, the Northern Emirates and Saudi Arabia.

In Asia, the story is not very different from a year ago. The gas market seems to be tilted toward a surplus situation, resulting in shorter-term prices coming down from the levels reached in 2009. What is perceptibly different in this “buyer’s market” are the varying slopes being offered by LNG sellers under long-term contracts. These prices tend to reflect the source of supply, such as conventional versus unconventional, and contract negotiations are additionally beginning to focus on non-price factors.

Looking ahead, trade flows between the Atlantic Basin, Middle East and Asia will

“Old” oil-indexed supply contracts are actively being renegotiated toward gas indexation to bring sustainability back into the marketplace.”

become more international. There is the possibility that the Middle East will form its own LNG “price marker”, with implications for price developments in Europe and Asia. After all, these are the two most natural alternative markets for Middle Eastern gas supplies.

But there are two other subjects that will become crucial to the energy industry and need attention.

First, the role of Asia and the shift of economic gravity from the Atlantic to the Pacific will focus our thoughts for the next decade. These future relationships, whether commercial or political, will define the use of energy in our industry.

And second, although a “softer” issue, which I believe is of paramount importance, is the message that we as an energy industry give to the world. We must highlight the benefits, both in terms of cost and the environment and the superlatives of this fantastic industry. And we must redefine our role and perception in the public eye to ensure a sustainable future and acceptance of our industry by governments and peoples alike.



John Roper is E.ON Ruhrgas head for the Middle East.

Doha Energy Forum - Roundtable Discussion Total

MODERATOR: ROBERT TUTTLE

Shale gas already has the potential to dramatically change the energy landscape in the US and the relationship between oil and gas markets. What are the global implications of these vast new supplies and what is the potential for them elsewhere?

Results

- 1) Shale gas generally falls into the consensus view that more of a good thing is better - more natural gas is good for the gas market as it encourages more consumption of this environmentally friendly fossil fuel, particularly in the fast growing power sector, and bolsters the economic logic to invest the billions of dollars needed to construct the supply chain infrastructure.
- 2) Shale gas balances the North American market and essentially makes it self-sufficient for the time being, reducing if not eliminating the need for imported liquefied natural gas (LNG) to go to the US. Some may argue that the timing could not have been better from a global supply/demand fundamentals, as LNG shut out from the Atlantic Basin has been snapped up in Asia, especially in the wake of the devastating earthquake in Japan that destroyed a number of the country's nuclear facilities.
- 3) Shale gas still faces huge challenges to its development as environmental concerns have already curtailed drilling in parts of the US. Outside North America, especially in Europe where environmental standards are very strict and landowners have royalty rights, it will be that much more difficult to develop shale gas deposits. Shale gas produces fewer liquids, which makes it less profitable. China is probably the most likely market for shale gas production outside the US since the government won't face any of these challenges seen in Europe.



TOTAL

Robert Tuttle, Qatar Bureau Chief for Bloomberg News & TV



**LNG May Soon be Ready
to Stand Alone on Its
Own benchmark**

by Thomas M. Leaver



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THE GROWING acceptance and success of real-time market pricing for pipeline natural gas in North America and the UK, which is currently less than half the price of oil-indexed gas prices, makes it increasingly painful to those long-term gas contract customers in Europe and even more so in Asia, where the usage of Japan's average oil price (JCC) as the price reference exacerbates any hope of price risk management by virtue of its retroactivity.

The drivers for such a move are tied to the natural evolution away from long-term take or pay contracts to ones that are now allowing for diversion clauses, price reopeners, creative price mechanisms, equity LNG off-take and more flexible shipping terms, which lead to an increase in the development and size of "spot" markets.

Should this trend continue, there may be scope for an FOB LNG clearing price either out of Qatar or the NWS of Australia in the coming years, perhaps listed on the Dubai Mercantile Exchange, should the industry support such an initiative.

Hans-Peter Floren, Head of Gas Supply for E.ON Ruhrgas, one of Europe's largest gas suppliers, recently said: "Looking ahead, trade flows between the Atlantic Basin, Middle East and Asia will become more international. There is the possibility that the Middle East will likely form its own LNG 'price marker' with implications for price developments in Europe and Asia. After all, these are the two most natural alternative markets for Middle Eastern gas supplies."

As Floren suggests, there is a growing debate around the rapid evolution of the LNG markets and what effect, if any, this will have on the traditional linkage or indexation to oil in the European and Far Eastern markets.

There are several arguments against any change to the status quo. These include:

- Security of supply to LNG dependent countries;
- Capital intensity of the industry requires long-term contracts for justification of new projects;
- Not linking to oil would make many new projects uneconomic;
- There is no alternative benchmark appropriate to LNG pricing into Europe and East of Suez
- Limited availability of third-party storage infrastructure, limited number of potential sellers and buyers until third-party systems are developed and limits to shipping fleet fungibility.



“The change will be painful, no doubt, but nonetheless inevitable because markets ultimately drive economic change.”

However, in free and open markets, unfettered by quotas, tariffs, subsidies, retroactivity or other market distortions, the prominent rise of LNG supply, the global market dynamic surrounding this and the environmental drivers that should make it the fuel of choice, one can make a strong case for LNG becoming a benchmark in its own right, subject to its own supply and demand price drivers.

Given the acceptance of Henry Hub pricing in the US, the National Balance Point in the UK and for short-term supply imbalances in Europe, a combination of TTF, EEX-NCG and Zeebrugge, all of which already closely follow that of the UK hub-based pricing, there is a case to be made that the continuation of these trends could spread beyond Europe to the Asian markets, where the structures are currently more rigid.

Ultimately, the disparities between North America, the UK, Europe, the Middle East and the Far East should converge by means of the supply and demand balances that drive the incremental price for each region and the arbitrage in the cargo market that could eventually help to balance these should LNG be priced as its own product.

The change will be painful, no doubt, but nonetheless inevitable because markets ultimately drive economic change, as they do efficiencies. The future of LNG would be better served as a result.



Thomas M Leaver is Chief Executive Officer of the Dubai Mercantile Exchange.

Doha Energy Forum - Roundtable Discussion

ORYX GTL

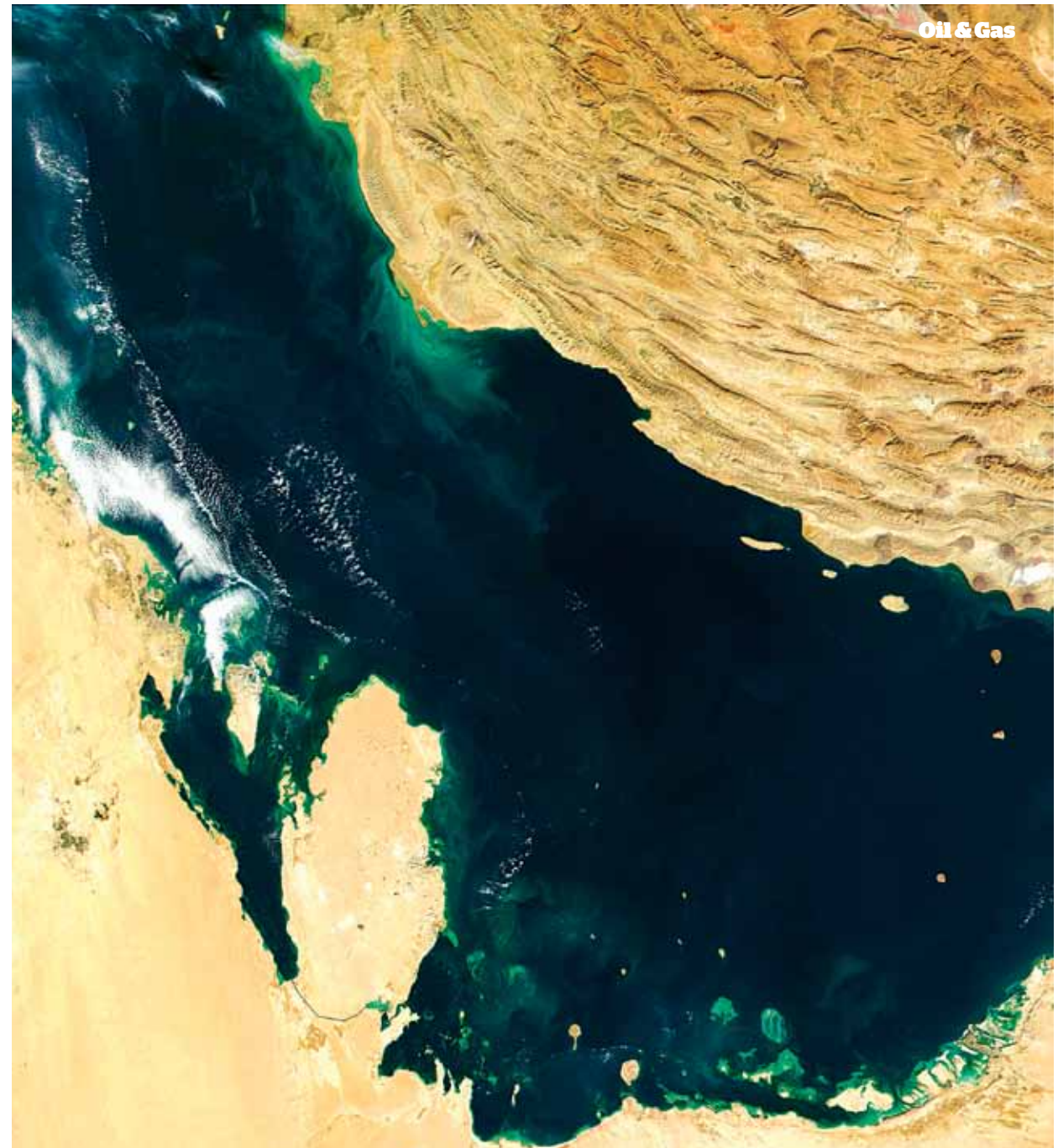
MODERATOR: ETTIENNE RADEMEYER

What will be the impact of China's new five-year plan on the future automobile fleet and what does this mean for gasoline and diesel demand? Can coal-based substitutes replace a significant portion of demand for fuels and petrochemical feedstock to the extent that Chinese demand could peak before 2020, or is there no reversing the demand growth trend?

Results

- 1) China is destined under its new five-year plan to move toward more environmental-friendly policies, resulting in the closure of some old coal mines using outdated technology. However, with the abundance of coal in China, it will remain a major source of fuel to support the country's rapid growth. The population growth, along with the rise in living standards, will continue to deliver a massive rise in car ownership and hydrocarbons are destined to remain the main fuel of transportation for decades to come.
- 2) The demand for diesel and gasoline will continue to soar in China. If the country's number of motor vehicles per capita were comparable to the world average, its fleet would have to total 160 million, with 10 million new and replacement vehicles acquired each year. But that's not the case. In 2001 China had only 18 million vehicles, of which five million were cars. The country has relatively few motor vehicles per capita and, of the cars on its highways, few are privately owned. In its five-year plan (2001-2005) for the automotive industry, the government announced its intention to produce over one million cars a year.
- 3) Qatar is well placed to meet China's increased appetite for lower carbon emissions with clean fuel alternatives such as GTL, which generates 50 percent less carbon dioxide than conventional fossil fuels. But the reality remains that alternative sources of energy will only have an impact on the margins in China. With economic growth rates set to continue in high single digits, the bulk of transport and heavy industry needs will continue to be met by oil.

Etienne Rademeyer, Chief Operations Officer, ORYXGTL



Arabian Gulf Research Required to Overcome Unique Arabian Gulf Challenges

by **Bruce R. Palmer, PhD**



THE GREATEST long-range technical challenges facing petroleum, chemical and related industries in the Arabian Gulf should propel the appropriate research projects in the region to help solve these issues.

The wealth of the Arabian Gulf region is tightly linked to the quantity of recoverable petroleum. Accordingly, future industry research in the region certainly must focus on technologies that maximize petroleum recovery. These include techniques for imaging subsurface structures and for extracting petroleum from reservoirs. Such research work must take top priority as technologies for imaging and extraction have been the central focus of major revolutions in the past two decades.

As hydrocarbon sources deplete, these research areas will become increasingly important.

Given the low recovery of petroleum from most reservoirs, future research must focus on enhanced oil recovery. Higher petroleum prices will bring research involving enhanced recovery tools such as surfactant flooding

to the forefront. Modification of reservoir rocks to improve flow characteristics will play a role in this research. Modeling will grow in importance as detailed understanding of reservoir flow characteristics provides opportunities to enhance production.

Operating efficiency will also become increasingly important. Issues such as flow assurance will gain in importance under these circumstances. Accordingly, research focus on issues such as scale formation and asphaltene deposition will intensify as the economic value of flow assurance projects spiral.

Additionally, online monitoring of reservoir conditions will provide important new information to increase extraction efficiency. Research will also focus on new communication techniques to transmit reservoir conditions to surface monitoring equipment. As this effort grows, modeling will gain importance as new inputs become available to improve the effectiveness of this tool.

Production of gas from sour reservoirs will continue to grow as sweet resources near

depletion. New sulfur disposal approaches must be examined in light of estimated sulfur production volumes of 20,000-30,000 tons per day for Qatar and the UAE in the next few years. Reinjection of sour gas must be examined in light of the magnitude of this issue. Research in a number of areas, such as fluid properties, will be required to evaluate the sour-gas reinjection option.

ENVIRONMENT AND SAFETY

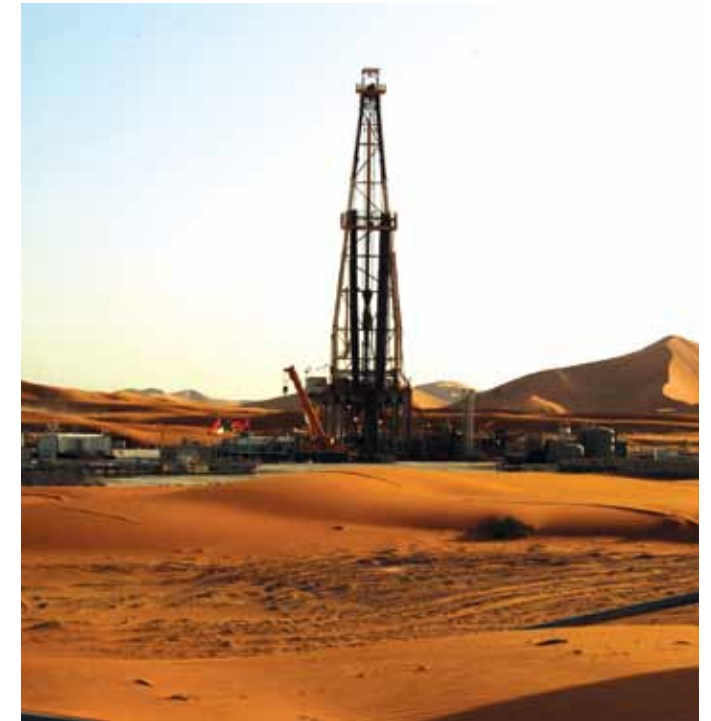
Environmental issues will become increasingly important as Arabian Gulf countries adopt regulations similar to those in North America, Europe and Asia. Accordingly, research will be needed to develop processes to ensure that air and water emissions meet future regulations. Existing technology will be applicable in many instances; however, the unique processing plants in the Arabian Gulf region combined with a unique climate will require additional research to develop and adapt workable approaches.

In the case of air quality, reduction in carbon emissions will require research to identify new processes. Particulate emissions will receive similar research attention. Water quality will continue to be a central focus of research. Work to understand and control emissions related to cooling water will continue to assume importance. Waste water generated from petroleum operations will become increasingly important as enhanced oil recovery is applied to maintain production.

Safety will likewise receive greater scrutiny as Arabian Gulf countries follow the lead of policies adopted in North America, Europe and Asia. Unique facilities such as the Ras Laffan Emergency and Safety College will grow in importance to provide important insight concerning safe handling of important products of Qatar, especially liquid natural gas. Research to provide critical understanding concerning atmospheric dispersion of LNG will also assume importance in LNG application.

MATERIALS

Materials issues will continue to play an important role in future research. Large portions of the Qatar economy are critically dependent on catalytic materials; catalysis research will play a key role in future materials work. One aspect of this work will focus on fundamental understanding of catalysis. Concurrent proprietary research will certainly advance the performance of new



“In the case of air quality, reduction in carbon emissions will require research to identify new processes.”

catalysts for processes that play an important role in the Qatar economy such as gas-to-liquids conversion.

Work to mitigate the impact of corrosion will continue to grow. The annual cost of corrosion is typically two to three percent of GDP. Accordingly, the 2011 cost to Qatar is estimated to be a staggering \$8 billion. This research will certainly lead to development of new alloys in addition to new high-performance coatings and linings. Additionally, research likely will lead to new detection tools so that corrosion can be addressed early before catastrophic degradation occurs.

Scientists and engineers will continue to seek opportunities to apply their skills to solve important challenges facing the Arabian Gulf. While a number of approaches will be applied, those that look at adapting major research areas to the hurdles facing the Arabian Gulf could provide new solutions to important problems.



Bruce R. Palmer, PhD, is Interim Associate Dean for Research and Graduate Studies at Texas A&M University at Qatar.

Doha Energy Forum - Roundtable Discussion Occidental Petroleum Corp

MODERATOR: TAMSIN CARLISLE

International oil companies, ranging from the majors to emerging market national oil firms, have staked big claims to Iraq's vast oil potential based on what are essentially super service contracts - with no production sharing or the possibility to book reserves, leaving many to speculate that these contracts will have to be renewed. What should be the principal tenants of E & P agreements to meet the massive global demand growth forecast over the next 20 years?

Results

- 1) Only one thing is known for sure: the prize for establishing successful oil and gas operations in Iraq is huge. For the moment that means there is no shortage of IOCs taking big risks for a chance to get a foot in the door. But for how long will even the largest of those companies persist in pursuing projects under contract terms so tough that they may well turn out to be untenable? Contracts between should define the range and types of risks likely to be encountered during a project's lifetime. They should spell out a corresponding schedule of appropriate rewards for overcoming those risks. In the oil and gas sector, the types of risks encountered may be political, legal, bureaucratic, technical, geological, or related to infrastructure, security or cost inflation. In Iraq, they may include all of the above.
- 2) Long-term contracts should be flexible, providing enough "wiggle room" to accommodate the evolution of the relationship between the signatories. While every effort should be made to honor contract terms, there should also be an understanding that they may sometimes need to be renegotiated.
- 3) In Iraq, foreign oil companies should strive for an understanding with their government partners that the needs of an established oil producing region such as Basra may be completely different from those of emerging regions such as Kurdistan or Anbar province. Only if contract terms are permitted to reflect such differences can they successfully promote oil and gas development throughout the country in a way that, in the long term, will be perceived as fair and equitable.



Tamsin Carlisle, Energy Correspondent, The National Newspaper



His Excellency
Dr Mohamed Bin Saleh Al Sada
Q&A with Energy Industry



LEWIS AFFLECK, MANAGING DIRECTOR OF MAERSK OIL

QATAR: *What role should IOCs play in helping the Qatari energy industry meet its challenges, and what assistance can we provide the country to realise its 2030 vision?*

HE DR AL SADA: I think the IOCs play a positive role in the development of our society, and some of the priorities regarding what the IOCs can do are delivered as part of their corporate social responsibility. The international companies can also play a key role in establishing research and development capabilities in the country, train young Qatari engineers and develop the required technology to help tackle specific environmental issues relevant to the areas in which they operate.



ANDY BROWN, EXECUTIVE VICE PRESIDENT, QATAR SHELL

How should we position the hydrocarbon business, and particularly the gas business, as one for the future of the planet and not just a temporary energy source before renewable and nuclear energy take over?

HE DR AL SADA: I think the governments of energy producing countries, the national oil companies and international oil companies need to do more to convey positive messages about the industry and its role in society. In order to achieve that we need to have a very transparent flow of information on supply and demand, on the development of renewable energies and the cost of developing alternative energies.

Some people may think that the

development of renewable and alternative energies is competing with hydrocarbons, but they are not. In fact, to sustain reasonable global economic growth we will need all sources of energy available, especially with the standard of living rising in the developing world, which is increasing energy consumption in an exponential manner. The majority of the world's population growth is coming in areas that are experiencing the biggest increase in living standards, and this is where the share of energy consumption per capita is increasing the most.

You know, by 2030 80 percent of the world's energy supply will still need to come from fossil fuels, but alternative energy sources will have an important role to play and need to be developed and supported to take a bigger market share.

For example, today global energy consumption is hovering around 90 million barrels of oil per day, and forecasts show that demand will exceed 110 million barrels per day in 2030. In order to just maintain today's current level of supply we will need to inject trillions of dollars, let alone to increase capacity to 110 million barrels and beyond.

We have been blessed in this part of the world in having large energy reserves, but it comes with the responsibility to adequately and rationally exploit it in an environmentally acceptable manner, and deliver it to the recipient in a timely, efficient and safe way.



JAMES MCCALLUM, CEO OF SENERGY

What is Qatar's ambition in terms of anchoring and sustaining an energy intellectual hub in the Middle East, similar to Houston or Aberdeen?

HE DR AL SADA: You are right that the Middle East has the potential to do better and develop further. I

can see the Middle East improve and become an important center for the energy industry, especially with regard to technical and operational capabilities. One can see the trend over the past few years as our region has started to attract more and more energy companies, and in fact some of them have chosen to locate their headquarters here.

This trend is going to continue in my view, especially with many world-class academic institutions such as Texas A&M University having come to Doha and selected the right subjects to be taught and researched. You can see the results of this process in the course choices that students have made, with 40 percent choosing to specialize as petroleum engineers.

We have also seen the research activity increasing substantially to the extent that Qatar Science & Technology Park (QSTP) is already full, and plans are already underway to expand it. If you look at the dominant type of research being done at QSTP, it is one way or another related to energy, with most major international oil companies present. We think such a trend will continue and the potential is still very great.



ANTON PUNT, HEAD OF PROCESS ENGINEERING AT ORYXGTL

Is there a drive in Qatar to diversify its product slate into chemicals or other different chemical products?

HE DR AL SADA: Yes, the answer is very much a Big Yes! If you look at the petrochemical sector in Qatar, we have been diversifying the type of chemicals we produce and today we are exporting different chemicals and fertilizers to something like 85 countries.

But we still haven't realised the full potential of petrochemicals and that is why you will notice that there are a number of petrochemical projects under different phases of development.



That is not the full story. We have medium to small industries also capitalizing on the petrochemical products we have in Qatar. I cannot see us relaxing for the next quarter of a century when we still have so much more ample opportunities in the downstream at all levels, from mega projects to medium and small industries.



SEAN EVERS: *Will downstream define the next decade in Qatar in the way that maybe upstream has defined the last decade or so?*

HEDR ALSADA: I would say that there will be a very clear emphasis on the downstream, but still we can see the opportunity in the upstream as we exploit more and more of our existing fields with better technology and move into secondary and tertiary recovery.

The nature of the development will naturally drive us now to go further in exploiting downstream, which can be exploited in a manner that has the potential to go further and further downstream. That will take us many years and the potential is big.

Also we have built over the past decade excellent technical and commercial expertise that can support us to go outside Qatar, and there is an emphasis on investment internationally. We have already made an excellent start, and that is going to continue.



BILL FARREN PRICE, CEO OF PETROLEUM POLICY INTELLIGENCE: *Will you be able to continue to divert LNG to other Gulf states or are these markets less of a*

priority for Qatar in the longer term?

HEDR ALSADA: Well, as you know there is moratorium in Qatar because we need to study the reservoir. Our available divertible gas, LNG in this case, will obviously be less and less as we increasingly divert LNG to somewhere else – and we are taking the gas from the same production portfolio level that we have today.

Down the road you have the potential after the completion of the moratorium study. Obviously our job is to monetize our reserve and if the possibility is there we will be the happiest to deliver gas to the GCC region in the form of LNG. For now we will exploit the full potential of diverting cargoes to the region, and one must also remember that the Middle East is rich in gas reserves that have still to be developed.



JOHN ROPER, HEAD OF MIDDLE EAST AT E.ON RUHRGAS: *Does Qatar have any plans to become an electricity exporter to the GCC region?*

HEDR ALSADA: How the electricity generating sector is going to evolve in the region is not yet clear as to whether there will be fully fledged connectivity across the GCC and to what extent. We have today a Gulf Grid and it is doing a great job. However, the grid is only managed to support and augment the national grid, so each individual country is only striving to generate enough power to meet domestic demand. We need to go further from a network point of view so that we have the excess capacity to provide support during emergency cases.

In moving to this second phase of development, it could be the natural progression to move to a commercial type of power exchange, which we will need to enlarge the grid to the full service of the GCC. I think there is more and more of that kind of realization, as everybody has

experienced the benefits from the stability of the power grid. I think that probably the next phase could be to enlarge the grid and make it capable to exchange power in a commercial manner. Today we don't have that capability, but that next phase could be logical.



EITHNE TREANOR, MANAGING PARTNER AT E TREANOR MEDIA:

What can the energy industry do collectively to change the public's negative perception of the sector?

HEDR ALSADA: What is important is that we should do a better job to communicate the message to the public. The energy industry should learn how to convey its message in the most appropriate manner. For example we have not been able to convey a clear picture on the many environmental research studies the industry has done and how much money is being injected into buying and improving technology.

Whether energy companies should be contractually obligated, or whether it should be part of a company's corporate social responsibility or part of their PR activities, to me the mechanism doesn't really matter as long as you have a very clear objective to communicate and are convinced that we can do more.

We should show the fact that the energy industry doesn't actually sit on the other side of the table, that we are on the same side, that we are part and parcel of the same community, and that we care about the environment and are striving to do better in all aspects.

Many energy companies, including QP, if you look at the internal standards you will see that they tend to be more stringent than the laws and regulations demand. We do that because we believe that no enterprise project or joint venture can be declared successful unless safety and environment strike a successful balance.

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