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# Fujairah
# Special Report Series

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The Gulf Intelligence

# Whitepaper

## What is the Outlook for the Establishment of Middle East Oil Products Benchmarks?

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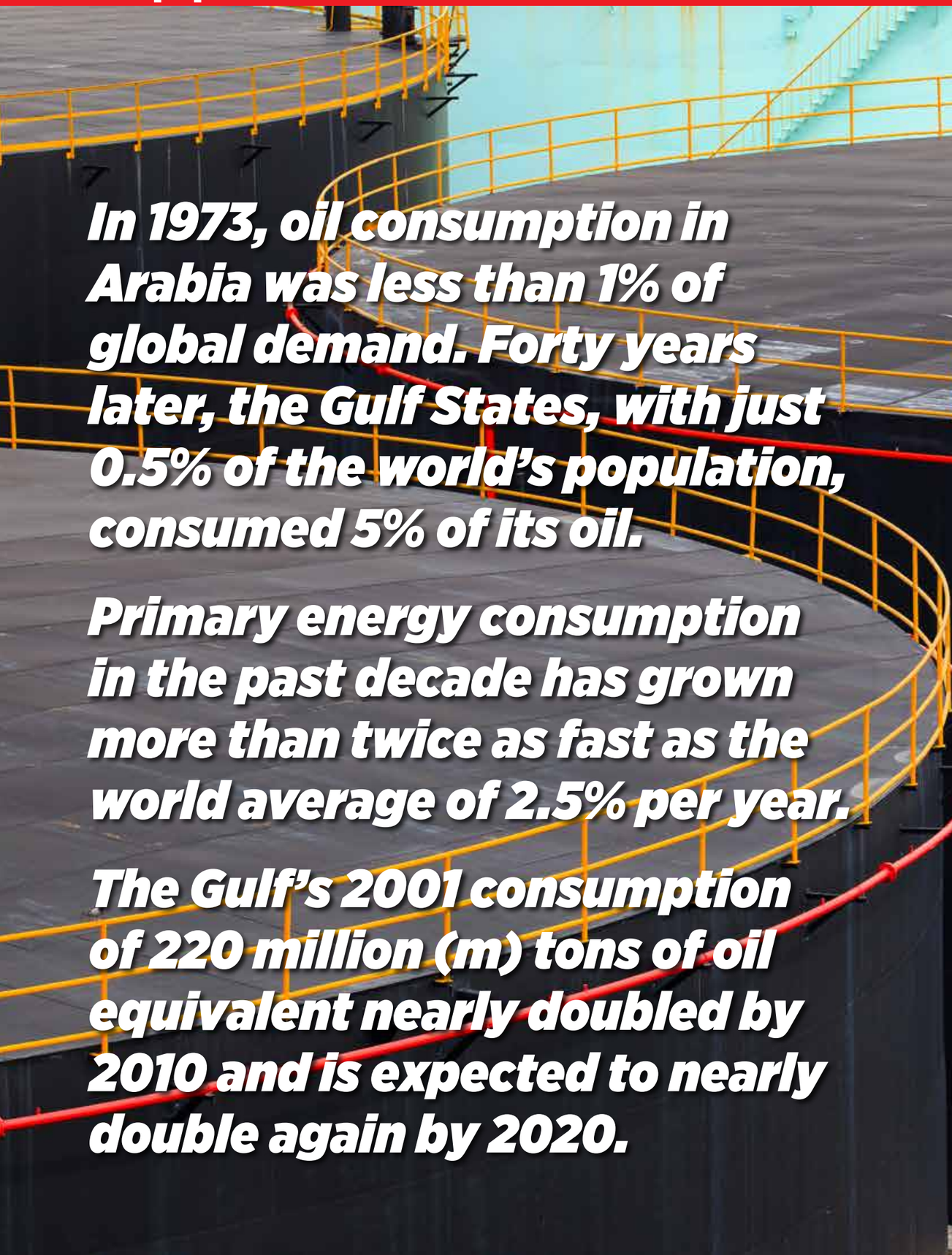


***In 1973, oil consumption in Arabia was less than 1% of global demand. Forty years later, the Gulf States, with just 0.5% of the world's population, consumed 5% of its oil.***

***Primary energy consumption in the past decade has grown more than twice as fast as the world average of 2.5% per year.***

***The Gulf's 2001 consumption of 220 million (m) tons of oil equivalent nearly doubled by 2010 and is expected to nearly double again by 2020.***

**The Gulf Intelligence** SEPTEMBER 2016
Whitepaper

## Contents

# The Gulf's Energy Trading Outlook: Soft Infrastructure Needs Rapid Upgrade to Catch up with Hard Infrastructure

**In recent years, the Gulf has seen the growth** of an array of key features of a world-class oil trading hub. It has become a major logistics hub, with pipelines, vast storage and several deep-water ports. It is supported by growing financial centers and now the majority of banks, oil companies, multi-nationals, national oil companies (NOCs) and trading houses are represented there. The region is also in the midst of a refining construction boom, with more than a million barrels a day of capacity added in the last few years. There is plenty more to come.

Yet, the physical spot markets are still somewhat old-fashioned. In essence, they revolve around benchmarks based in other regions and are not supported by deep and localized derivative markets. Physical trades tend to be point-to-point, without chains of traders and position-taking – both key generators of liquidity. Plus, transparency around pricing and fundamentals data is sporadic.

There is a growing desire to see the market develop, as the domestic downstream markets in the region post some of the strongest growth figures of any in the world and the refining construction boom looks set to continue. The soaring regional demand for jet fuel, naphtha, diesel, gasoline and fuel oil are propelling discussions on the need to establish independent oil products benchmarks in the Gulf.

***The Gulf Intelligence Oil Markets Workshop held on April 27th, 2016 and supported by Fujairah and S&P Global Platts was tasked with the challenge to identify and shortlist the most urgent 'next step' recommendations required to tackle two critical questions:***

***1. What are the barriers to establishing a global energy trading hub in the Gulf region?***

***2. What steps can be taken to support the establishment of independent oil products benchmarks in the Gulf?***

The ultimate drivers of high rates of energy consumption in the Gulf are government policies. In the early days of oil, policy focused on national development. Energy resources were seen foremost as generators of export revenues, which were then invested to advance improvements in infrastructure and economies.

In 1973, oil consumption in Arabia was less than 1% of global demand. Forty years later, the Gulf States, with just 0.5% of the world's population, consumed 5% of its oil. Primary energy consumption in the past decade has grown more than twice as fast as the world average of 2.5% per year. The Gulf's 2001 consumption of 220 million (m) tons of oil equivalent nearly doubled by 2010 and is expected to nearly double again by 2020.



**Saudi Arabia's Significant influence**

Saudi Arabia is by far the largest of the Gulf states by population, economy and energy reserves, has shot up the ranks of global oil consumers. By 2009, the Kingdom had surpassed Brazil and Germany to become the world's No. 6 oil consumer, despite its comparatively small population, economy and industrial base. By 2014, Saudi Arabia and Russia – another major oil producing and exporting country – were consuming oil in nearly equal amounts: 3.185m barrels a day (b/d) in Saudi Arabia and 3.196m b/d in Russia. While Russia's plentiful natural gas supply allows it to substitute for oil in the domestic economy, oil-based energy prices in Russia are also much higher. For example, a liter of gasoline sold for 86 cents in Russia in 2014, but 12c in Saudi.

SAUDI OIL CONSUMPTION IN PERSPECTIVE

| Country | Oil consumed 2014 (m bbl/d) | GDP 2014 | Population 2014 | Oil consumption per capita (bbl/yr) |
|---|---|---|---|---|
| Brazil | 3.23 | US$2,353bn | 203 million | 5.8 |
| Germany | 2.37 | US$3,860bn | 81 million | 10.7 |
| Saudi Arabia | 3.20 | US$752bn | 31 million | 37.8 |
| Russia | 1.50 | US$1,857bn | 144 million | 8.1 |

*Source: IMF World Economic Outlook 2015, BP Statistical Review 2015*

Power generation growth in the GCC countries has been nothing short of dramatic, given that most of the region was un-electrified as recently as 1960. In Oman, large-scale electrification did not even unfold until well into the 1970s. Many residents can remember the difficult days before refrigeration and air conditioning. Residents of the richer states of Kuwait, Qatar and the UAE now consume more electricity, on average, than residents in the US.

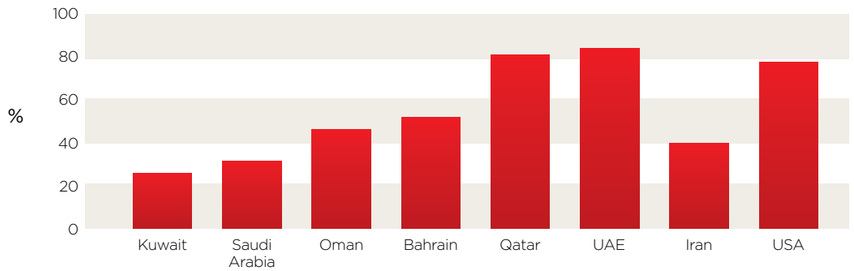
The growth of power generation averaged 10% per year since 1973, slipping to 7% per year between 2000 and 2010, which was slightly faster than the average GDP growth that decade of 6.5%. About 60% of power generated in the GCC countries flows from natural gas-fired plants, versus 40% for liquid fuels, such as crude oil, diesel and heavy fuel oil. Overall, about a third of all natural gas produced in the Gulf states is consumed in regional power generation. Gas demand is exacerbated by its use in producing desalinated water, which is often in co-generation plants that use waste heat to produce electricity.

In recent years, growth in electricity demand has outstripped domestic supply of natural gas in five of the six GCC states. Only Qatar commands a sufficient supply for the foreseeable future. The shortage leaves Gulf states facing higher marginal costs for new power generation and production of desalinated water. In the past, governments had to cope with the cost of building plants, while surplus feedstock was made available as a byproduct of oil production.

Now, policymakers must contend with market-priced imported fuels, the expensive production of unconventional gas, or the opportunity cost of burning crude oil and other costly liquid fuels. Oil demand has risen across the GCC by an average of 9% per year since 1973, growing faster than GDP, on average. Aggregate oil consumption in the six GCC states was less than 500,000 b/d in 1973 and more than 4m b/d in 2014.

**Although power demand** has been problematic in all GCC States outside Qatar, Saudi Arabia and Kuwait face the highest demand pressure because of their reliance on liquid fuels – crude oil, heavy fuel oil and diesel fuel – for most of their power generation feedstock. Hence, while oil consumption in the remaining GCC states is weighted more heavily toward the transport sector – where oil is considered most valuable – burning of liquid fuels for power generation is still dominant in Saudi Arabia and Kuwait. (See charts)

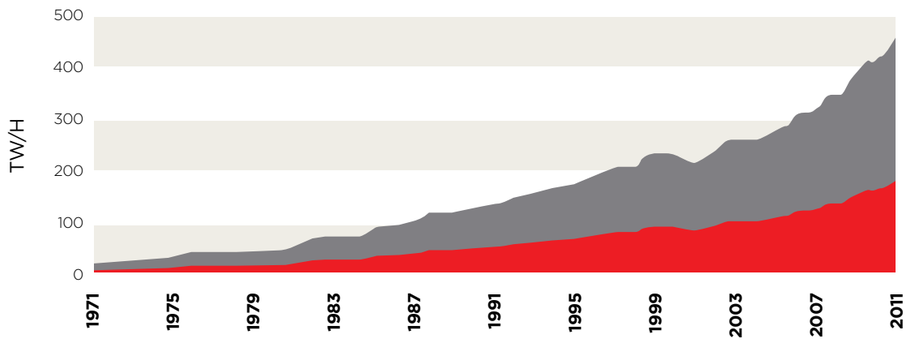
OIL CONSUMED IN TRANSPORT SECTOR AS SHARE OF TOTAL DEMAND IN 2012




**Among GCC states, oil is chiefly used as transport fuel in Qatar and UAE, as is the case in most of the developed world**
*(Source: IEA 2015)*

**Saudi Arabia consumed more** than a quarter of its overall production in 2013. Direct burn of crude oil for power generation reached an average of 0.7m b/d from 2009 to 2013 during the months of June to September, with peak month power sector consumption rising as high as 900,000 b/d. While Kuwait is gradually shifting toward natural gas via imported LNG, Saudi crude burning looks set to top 1m b/d by 2020. Low domestic prices for crude oil – roughly $5/bbl in Saudi Arabia – are a major factor encouraging crude oil demand.

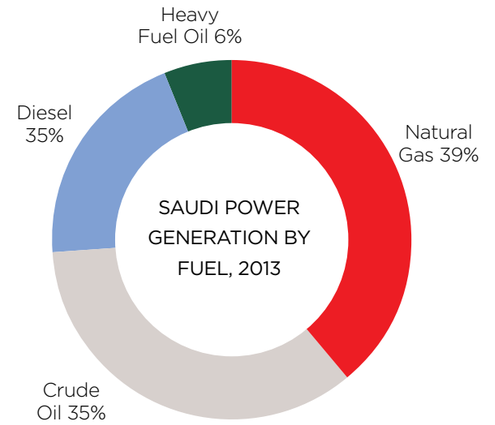
GCC POWER GENERATION BY FEEDSTOCK SINCE 1971




**Aggregated total GCC electricity generation in terawatt-hours since 1971, highlighting the share of power generated with natural gas and that generated by liquid fuels (crude oil, heavy fuel oil and diesel by feedstock, 1971-2011**
*(Source: IEA 2013)*



Intensifying domestic crude burning coupled with a 1.4m b/d increase in crude shipments to Aramco refineries inside and outside the kingdom signal that Saudi Arabia is moving beyond its long-held role as the world's market-balancing supplier of crude oil. Recent data show slipping Saudi crude exports, alongside flat or rising production. Assuming that Saudi crude production remains constant at around 10m b/d, the amount of crude available for export could fall below 5m b/d by 2020.



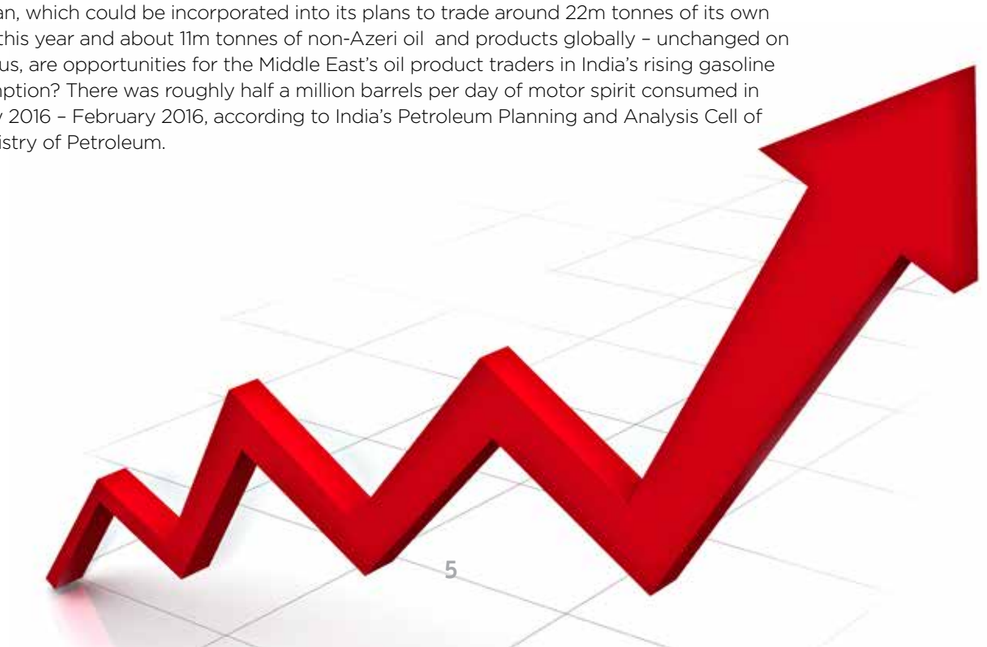

**Saudi power generation by feedstock, with shares given for liquid fuels, 2013**
*(Source: MEES 2014)*

### Shifting Dynamics Across the Middle East

There have been several shifts in the global dynamics that will impact the Middle East's oil product market. Investments in downstream infrastructure and subsequent oil product supply in the Middle East, which sits in the heart of the New Silk Road, has become increasingly prominent – especially as European suppliers shrink back after more than a century of dominance.

Plus, the lifting of sanctions on Iran in January will likely have a significant impact on the Gulf's oil product supply and access to Asian clients, especially in the fuel oil market.  Iran's fuel oil exports in January were up 81% from around 420,000m tonnes in January 2015 and February exports are roughly double the year before. Around half of Iran's estimated 1.2m tonnes of fuel oil exports loading in February are expected to end up in Singapore, with the other half of likely to find a home in the Fujairah bunker fuel market.

State Oil Company of Azerbaijan Republic (SOCAR) is considering exporting oil products to Tehran, which could be incorporated into its plans to trade around 22m tonnes of its own supply this year and about 11m tonnes of non-Azeri oil  and products globally – unchanged on 2015. Plus, are opportunities for the Middle East's oil product traders in India's rising gasoline consumption? There was roughly half a million barrels per day of motor spirit consumed in January 2016 – February 2016, according to India's Petroleum Planning and Analysis Cell of the Ministry of Petroleum.



# Oil Markets Workshop – April 27th, 2016

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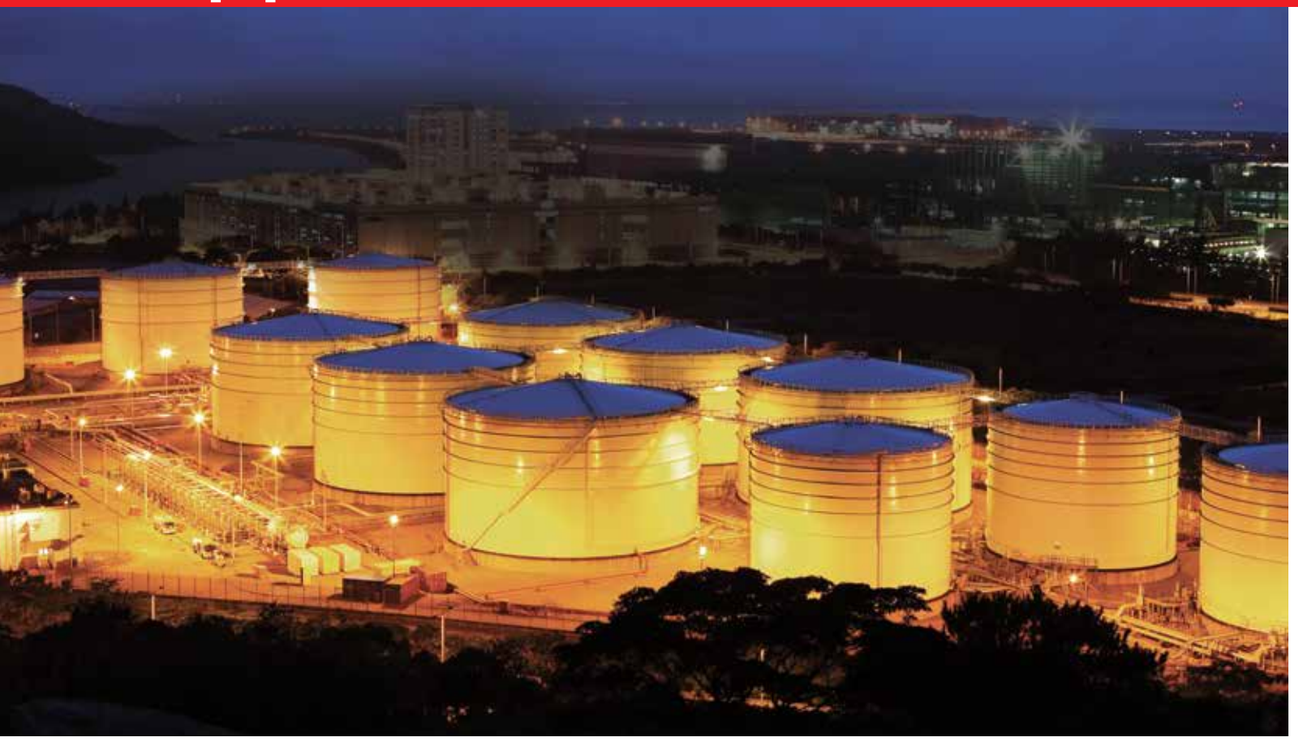
**SEAN EVERS**

Sean Evers is the Founder and Managing Partner of Gulf Intelligence. Mr. Evers has spent his career building ground-breaking media enterprises, starting with the award winning Punchbag Productions across Britain and Ireland, which secured the top award at the 1992 Edinburgh Festival. In the mid-1990s, Mr. Evers was appointed Cairo correspondent for The Financial Times. In 1997, Mr. Evers was recruited by Bloomberg to open up the company's presence in the Middle East, which began in the UAE. Over the following decade, Mr. Evers expanded the US media company's regional bureau network from Cairo to Tehran – Dubai was designated as the firm's fourth global hub in 2008. Mr. Evers attained a BA in Politics & Economics from the University of Notre Dame in Indiana in 1988 and went on to secure his LLB Law degree at The National University of Ireland Galway (NUIG).





# Stream 1 – Workshop

## *What are the Next Steps required to establish a liquid trading hub in the Gulf by 2020?*

**Easy access to capital,** ever-growing infrastructure, healthy volumes of trade and robust oil price benchmarks underscored by transparent methodologies are the key ingredients needed to deepen the Gulf's global trading footprint.

Fujairah's location south of the Straits of Hormuz in the UAE makes it the region's most strategic spot to bolster the Middle East's global trading presence, according to 83% of respondents to a Gulf Intelligence (GI) Industry Survey in April 2016. Surprisingly, Sohar in Oman and Bahrain did not receive a single vote, with 11% preferring Dubai.

Part of Fujairah's popularity is its offering as a one-stop shop, with the port able to provide supplies, bunkering, crews and so on. Today's 9 million (m) tons of oil storage is expected to climb to 14m by 2020. Fujairah's crude offering is ever-widening as well, such as UAE Murban, Iraqi Basrah Light and Masila from Yemen featuring on the product list. Part of the attraction, for traders especially, is that Fujairah is largely a deregulated market compared to the eagle-eyed regulators monitoring Singapore and Rotterdam.

While Fujairah's tool box is filling up, some elements need sharpening. All stakeholders, including Fujairah, must make an effort to run a tighter operation that meets the global standards set by other trading behemoths, notably Singapore and Rotterdam. It is equally worth noting that Singapore has had over a century of practice, from when Sir Stamford Raffles founded modern Singapore as a free port in 1819, to it becoming the world's largest container port for the first time in 1990.

Historically, a hub would need pricing guidance, trade and capacity – boxes that Fujairah has already ticked. But the emirate still needs to elevate its operations to meet the standard global transparency operating practices, which includes regular and easily accessible data sets.

The three winning recommendations of the Oil Markets Workshop address the most effective 'next steps' that could be made to bolster Fujairah's offering as a global hub. All the recommendations are intertwined, from establishing an independent benchmark for fuel oil, to publishing storage data and improving the overall legal architecture.

Other top recommendations – coming in fourth and fifth, respectively – was the need to improve the connectivity between third party storage and Abu Dhabi's National Oil Company (ADNOC) at Fujairah and bolstering the region's small trading community.

Linking ADNOC's facilities, which carry Murban crude, with third party storage would help promote transparency, flexibility and volume growth for ADNOC, Fujairah and all the port's customers. Nearly all (92%) of survey respondents said Abu Dhabi would benefit from maximising the opportunity to build a global trading hub in the UAE – an oft-discussed point that has yet to gain traction.

Meanwhile, the limited trading community in Fujairah and the wider Gulf is seen as an untapped opportunity, especially considering the region has an advantageous time zone as it is nestled between Europe and Asia. The tightening regulatory control and lower salaries in Europe should theoretically encourage traders and relevant professionals – brokers, lawyers and accountants to name a few – to migrate eastwards.

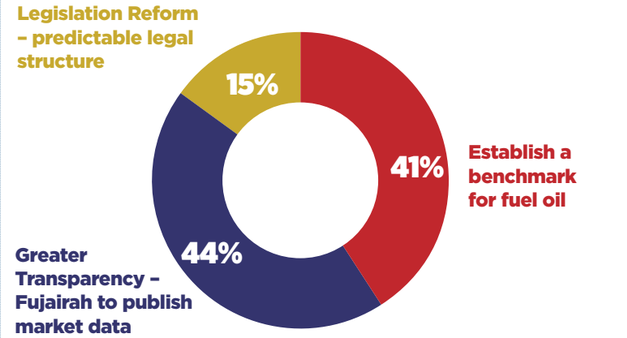
So far, Fujairah's proven capabilities as the region's preeminent trading hub have triggered a wave of optimism, with 51% of survey respondents saying the Middle East can evolve its trading presence to rival Singapore and Rotterdam within 2-5 years. Others are less bullish, with over a third (37%) expecting it to take five years plus before the Middle East can near the podium hosting Rotterdam and Singapore, as governmental red tape, political quibbles and regional competition drag the timetable backwards.

The pace of the region's growth into a global trading hub remains to be seen, with many saying the responsibility to fulfil the vision lies in Fujairah's hands. As His Highness Sheikh Mohammed bin Rashid Al Maktoum said: "Opportunities are made – they do not just lie around waiting for someone to grab them."

**83%**

**Fujairah is best-placed to become the Middle East's major trading hub, according to 83% of GI Industry Survey respondents.**

***What is the Most Urgent Recommendation Required to Establish a Liquid Trading Hub in the Gulf by 2020?***




**92%**

**Abu Dhabi would benefit from a global trading hub in the UAE, according to 92% of GI Industry Survey respondents.**

# Top Three Recommendations

## 1 Fujairah must publish storage data

**Visibility provided** by regular and publically available data is a key ingredient of successful liquid trading hubs around the world. The lack of such transparency at Fujairah is thwarting the region's ability to elevate its global prominence. Publishing data reduces market opacity and enables traders and investors to see opportunities and risks more clearly, thus enabling them to develop cohesive risk-aware strategies and ultimately lock in greater profits.

Fujairah needs to encourage its customers to publish weekly inventory data to replicate the data sets that are provided by customers in other major trading hubs, such as an aggregate breakdown of crude, residuals, middle distillates, light ends and so on. Publishing weekly data can also translate into effective marketing for Fujairah and serve as an education for those outside the region without an appreciation of Fujairah's ever-growing capabilities. Traders often push back when the need for greater data transparency is discussed, but such would meet reflects the standard operating procedures of global hubs – a position Fujairah is trying to achieve.

A small number of participants at the Oil Markets Workshop said that traders already tap into the data they need, so data transparency should not be a prerequisite for establishing independent oil products benchmarks and boosting Fujairah's global position. But the majority countered that improving data availability would be highly useful for external players who are not involved in day-to-day trading activities, such as refiners and financial institutions.

**Clear data sets will encourage PRAs to establish independent oil products benchmarks and help secure investments.**



## 2 Create a local and independent benchmark for fuel oil

**Creating a benchmark** for fuel oil by a pricing reporting agency (PRA) would help facilitate the development of a healthy derivatives market and mitigate financial risk. The sliding oil price since mid-June 2014 has meant that back-to-back trading has become increasingly uncommon. Companies have been taking long positions and putting more oil into storage due to the current contango – when the spot price is cheaper than that of forward price.

The Mean of Platts Arab Gulf (MOPAG) is already an important pricing point for the Middle East, Indian Subcontinent and East Africa. All three regions use the price for their physical pricing, which is derived by using the Singapore price minus freight. Historically, this system worked well as all fuel oil would go one way from Europe, the Black Sea and Baltic Sea via the Middle East to Singapore. This is no longer the case, with flows from the east heading back to the west, such as Singapore to the Middle East. Consequently, the freight factor that is included in the assessment of the MOPAG is no longer as reliable a figure to hedge fuel oil that is stored in Fujairah. Generally speaking, all oil volumes are hedged financially, but the fuel oil that is stored and traded out of Fujairah only has one effective hedging instrument – the Singapore swap.

**An independent benchmark for fuel oil would help hedge risk and more accurately reflect local activity.**

## 3 Legislative reform: Create a predictable legal structure

**At 44 years old,** the UAE is still a young jurisdiction and the legal architecture needs fine tuning to bolster energy and trading stakeholders' investment appetite to strengthen Fujairah's global footprint. A more mature legal structure in Singapore and Rotterdam provides security of the product on structured transactions and reassures refiners and investors.

Creating a predictable legal structure enables lawyers and traders alike to improve the risk profiles of transactions, as well as maximize the economic returns. For example, some banks supporting trading and related activities in the Gulf question how the current legal structure would withstand a case involving insolvency. This query has gained traction as energy stakeholders' balance sheets have come under increased strain amid sliding oil prices since 2014 – punctuated by a 12-year low in January 2016.

There is a difference between commodity banks, such as ING and Rabobank, and banks that support commodity-related projects. The latter applies to many local Gulf banks and there are significant opportunities for such financial institutions to expand their commodity-related business alongside Fujairah's growth. But, the banks need a firm legal compass.

Improving the UAE's legal framework will take time, but the process could be accelerated as Europe's increasingly stringent regulations and limited economic growth encourage legal professionals to relocate. A larger community in the Gulf would help leverage the market's appetite to pin down a tighter legal framework.

But, who would the responsibility of such adjustments fall to – would it require tweaks to federal law, or would it be an emirate-specific structure? If it is a case of federal law, this would require a close alignment between Fujairah and Abu Dhabi. Whatever route is pursued, there is little doubt that the intricacies of the legal framework in Fujairah need further attention if the region is to contend on the global stage.

**A firm legal compass is crucial to Fujairah's ability to enhance local and foreign traders and banks' appetite.**

# Stream 2 – Workshop

## *What should be the Next Steps to support the establishment of independent oil products benchmarks in the Gulf?*

**Independent and successful** benchmarks are underpinned by transparency, robust methodologies and a level playing field that allow price formation to take place in the open, rather than behind closed doors. This gives all market participants robust pricing data and insights on which to base their trading activities. The demand for commodities, including oil products, is steadily shifting from west to east and the Gulf is well-placed at the heart of the global crossroads.

The paradigm shift for oil flows has been particularly obvious in the last eighteen months, with the volumes through Platts' Dubai price assessment process hitting record highs. Last year's total volumes reported through the Platts Market on Close (MOC) process were seven times higher than in 2009.

But fortunate geography and rising appetite does not immediately translate into independent oil products benchmarks. As the Gulf ramps up its refining capacity and energy consumption soars, independent Middle East oil products benchmarks are urgently required, according to 72% of respondents to a Gulf Intelligence (GI) Industry Survey in April 2016. Nearly a quarter (22%) said independent benchmarks would be nice to have, but not critical, while 6% said there are already plenty of global price points.

**72%**

**Independent Middle East oil products benchmarks are urgently required, according to 72% of GI Industry Survey respondents.**

Prices made in Singapore are used to value most of the refined products produced, consumed and traded in the Middle East. Even pump prices in the UAE are determined by Platts Singapore. Yet, the netback pricing from Singapore does not reflect trade flows in the Gulf.

Gasoline, diesel, jet fuel and naphtha are the main oil products in the Gulf's trading ecosystem. While Fujairah is continually growing, it is not even close to matching the might of Singapore where 120 companies actively trade refined products. But, establishing independent oil products benchmarks would significantly help leverage the region's position as a serious global trading hub.

It is a critical time for Fujairah to fine-tune its potential. China, the world's largest crude importer, is looking to establish its own crude derivatives contract. Beijing hopes it will evolve into the world's third global crude benchmark, alongside London's Brent and the US' West Texas Intermediate (WTI). If realized, trillions of dollars would flow through the Shanghai International Energy Exchange (INE) and it would be considerably harder for Fujairah's independent benchmarks to gain traction on the global trading circuit.

An awareness campaign that not only highlights Fujairah's rapid infrastructure expansions, but also the key points surrounding trading would be hugely beneficial on several levels – a champion to communicate the region's ambitions.

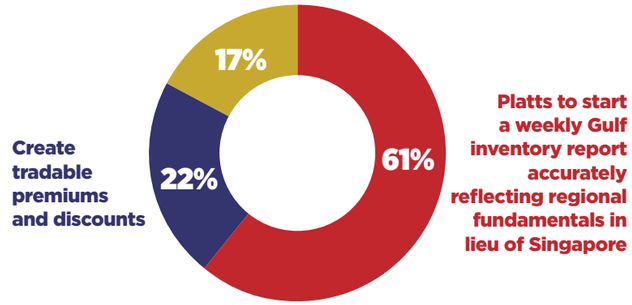
Enhancing awareness would add to the current momentum to establish independent oil products benchmarks in the Gulf, highlight the UAE's appetite to attract trading and legal talent and remind global competition that Fujairah's journey towards global prominence is unabated.

Such a campaign could potentially be done by the price reporting agencies (PRAs). Platts launched a window in Japan for Japanese domestic refined products in late-April, which encompassed a wider awareness campaign, for example.

The Dubai Mercantile Exchange (DME) also plans to list the Middle East refined products on its first platform from May 16, which opens the way for traders to directly hedge fuel oil delivered in the Gulf region and to trade the important spread between the Middle East and Singapore fuel oil markets. A handful of participants said the launch is directionally positive for the DME, but it holds little value for Fujairah's longer-term ambitions as the pricing is pegged to the MOPAG's 180cst and MOPAG 380cst assessments.

The three final recommendations that emerged from the Oil Markets Workshop aim to develop a stronger and more transparent springboard from which independent oil products benchmarks can be launched.

***What is the Most Urgent Recommendation Needed to Deliver Successful & Independent Oil Products Benchmarks in the Gulf?***




**120**

**The number of companies that actively trade refined products in Singapore.**

**Moderator**
**ALBERT W. STROMQUIST**

Mr. Stromquist is Founder, Senior Partner and Managing Director of Abu Dhabi-based Lanstrom Advisors – leaders in corporate strategy, public policy and bespoke investments in socially conscionable alternative energy technologies.

Mr. Stromquist earned a BSc in Mechanical Engineering from Worcester Polytechnic Institute and a MSc in Geology from the University of Massachusetts.

# Top Three Recommendations

## 1 A weekly inventory report to reflect the Gulf's fundamentals

**The culture of secrecy** in the Middle East still has great influence in the traded markets and NOCs, such as ADNOC and ENOC in the UAE, yield considerable clout over energy stakeholders. In order to attract enough investors and trading appetite to evolve into a global trading hub that rivals Singapore and Rotterdam, the Gulf must produce a weekly inventory report that directly reflects the local outlook.

While not a global hub, Fujairah is not a small operation; today's 9m tonnes of storage is expected to swell to 14m tonnes by 2020. Yet, netbacks based on Singapore prices do not bear any semblance to trade flows in the Gulf and pricing should be based on the physical trading that occurs locally.

An independent fuel oil contract was highlighted by the majority of workshop participants as the next natural step; state-owned Saudi Aramco has a thriving fuel oil portfolio in Fujairah, for instance. It is important to note that independent price assessments will not replace MOPAG, but will instead aim to expand Fujairah's offering.

Fuel oil in Fujairah is not integrated with the demand slate of the UAE, or even the wider GCC market, as there is not a significant level of domestic demand. But, the export and bunkering markets are sufficiently differentiated from Singapore and of sufficient scope and scale to justify a unique price discovery in Fujairah – this cannot be done without solid inventory data.

One factor that confuses the outlook somewhat is the acceleration of Iranian products coming into the market this year following the lifting on January 17 of Western-imposed sanctions. For now, there is still ambiguity surrounding the legality of trading Iranian products, though there is a robust trade in blended Iranian fuel oil in Fujairah.

There needs to be considerably more transparency at Fujairah and by its partners and customers. All those involved in the ecosystem – PRAs, traders, port managers, refiners, lawyers, bankers and so on – need to be confident that they understand the mechanisms and safety nets that make up the market before they can actively support the establishment of independent oil products benchmarks. Strong comparative data is vital, so that all parties can easily investigate the cause and consequence of inventory and pricing, and vice versa, for example.

A weekly inventory report is also crucial to bettering the understanding of energy stakeholders and financial institutions that operate elsewhere, especially as foreign human and financial capital are integral to expanding Fujairah's global prominence.

A weekly inventory report does not translate into a silver bullet. But, it would mark a crucial step in facilitating an ecosystem in which independent benchmarks can succeed.

**The culture of secrecy in the Middle East does not have a place in the trading markets and weekly inventory reports are vital to elevating the level of transparency.**

## 2 Create tradable premiums and discounts

**The existing MOPAG netback** arrangement – prices derived in Singapore minus freight resulting in the Middle East price – can lead to highly volatile premiums and discounts in the Middle East spot markets, which today trade as a differential to MOPAG. By creating a strong and liquid derivatives contract, price exposure to those premiums and discounts could be effectively managed through hedging.

Traders would likely be interested in writing derivatives which would hedge their risk. Industry is likely to support such a development, as it does not stray far from existing practices and it is widely agreed that this is a much needed precursor to a fully independent benchmark in the Gulf.

Premiums will usually rise when the market is backwardated – when the spot price is higher than the forward price – and the steeper the curve, the greater the premium. Conversely, in a contango situation – the spot price is lower than the forward price – the premiums have a tendency to turn into discounts.

Hedging the premium, or discount is one potential solution and only more bids and offers on premiums can make it hedgeable. Plus, significant premium swings – during quiet trading periods especially – inhibit small traders, which could hinder the UAE's ability to broaden its trading community. There have been huge swings in spot market differentials against MOPAG, with the range as wide as $12 - $29 per tonne at points, for example.

**Tradable premiums and discounts mitigate risk and are a natural precursor to establishing independent oil products benchmarks.**

***"A weekly inventory report does not translate into a silver bullet. But, it would mark a crucial step in facilitating an ecosystem in which independent benchmarks can succeed."***

## 3 Logistics – Reduce telecommunication costs, boost soft infrastructure

**The hard infrastructure** developments at Fujairah over the last decade – expanding tank storage capacity by 75% by 2020 and a jetty to receive very large crude carriers (VLCCs) – have been applauded worldwide for their ambition and tight timetables.

But, soft infrastructure needs more attention. There is an urgent need to scale back the escalating telecommunication costs for energy and trading stakeholders based in the Gulf and to enhance the local pool of trading talent.

A lease line – a private bi-directional, or symmetric telecommunications line between locations – running between Chicago and Dubai is the fastest such connection on earth, but the costs can be crippling. High costs are particularly hindering small and medium-sized enterprises (SMEs) from entering the market, especially as oil prices at roughly $45 a barrel (bl) strain energy stakeholders' budgets.

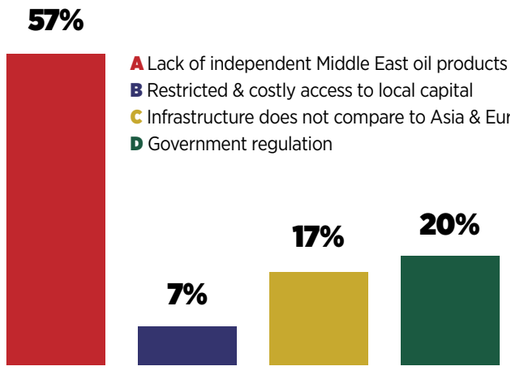
Today's physical commodity market relies on sophisticated infrastructure and speed. Considering the national and regional importance of Fujairah, there is a compelling argument to tackle the high telecommunications costs on a federal, or emirate level.

Plus, the incentives for traders and relevant professionals – the legal community, for example – need bolstering to fully enhance the region's talent pool. Local companies and international firms with local entities need to offer enhanced packages, which could include comprehensive training programmes, to attract both young and experienced professionals to the UAE and wider Gulf.

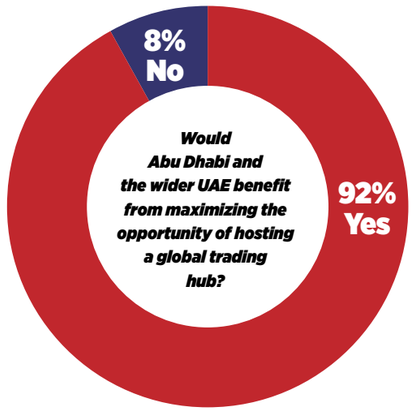
**Cheaper telecommunications and a larger trading community are fundamental improvements required to ensure the success of new oil products benchmarks.**

# Oil Markets Workshop
## Survey Results

***What is the main obstacle to the UAE's ability to evolve into a mega trading hub that rivals behemoths Singapore and Rotterdam?***

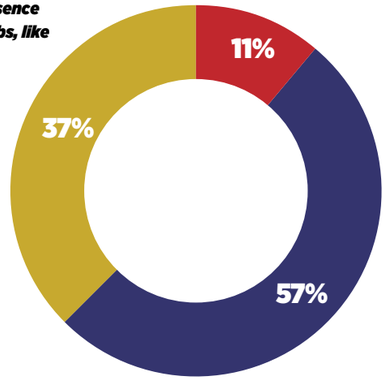



**A** Lack of independent Middle East oil products benchmarks
**B** Restricted & costly access to local capital
**C** Infrastructure does not compare to Asia & Europe
**D** Government regulation



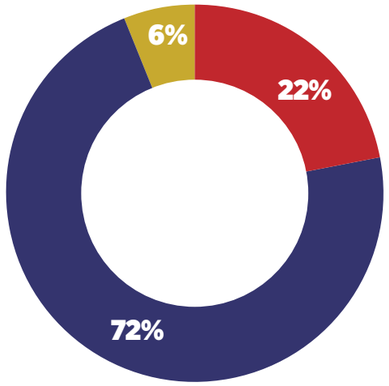

***How long will it take for the Middle East to evolve its global trading presence and rival other major global hubs, like Singapore and Rotterdam?***

**A 1 year** – The trade is there, but needs an independent benchmark
**B 2-5 years** – It is a big undertaking & will not happen overnight
**C 5 years +** – Politics, governance and regional competition will curb progress



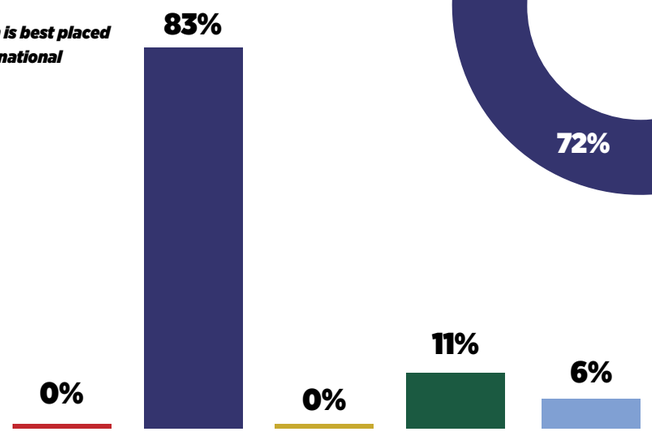

***As the Gulf ramps up its refining capacity and energy consumption, independent oil products benchmarks would be..***

**A** Nice to have, but not critical
**B** Urgently required – it is imperative for price accuracy
**C** Forget it – there are enough global pricing benchmarks




***Which port city in the region is best placed to establish itself as an international energy trading hub?***

**A** Bahrain
**B** Fujairah
**C** Sohar
**D** Dubai
**E** None of the above







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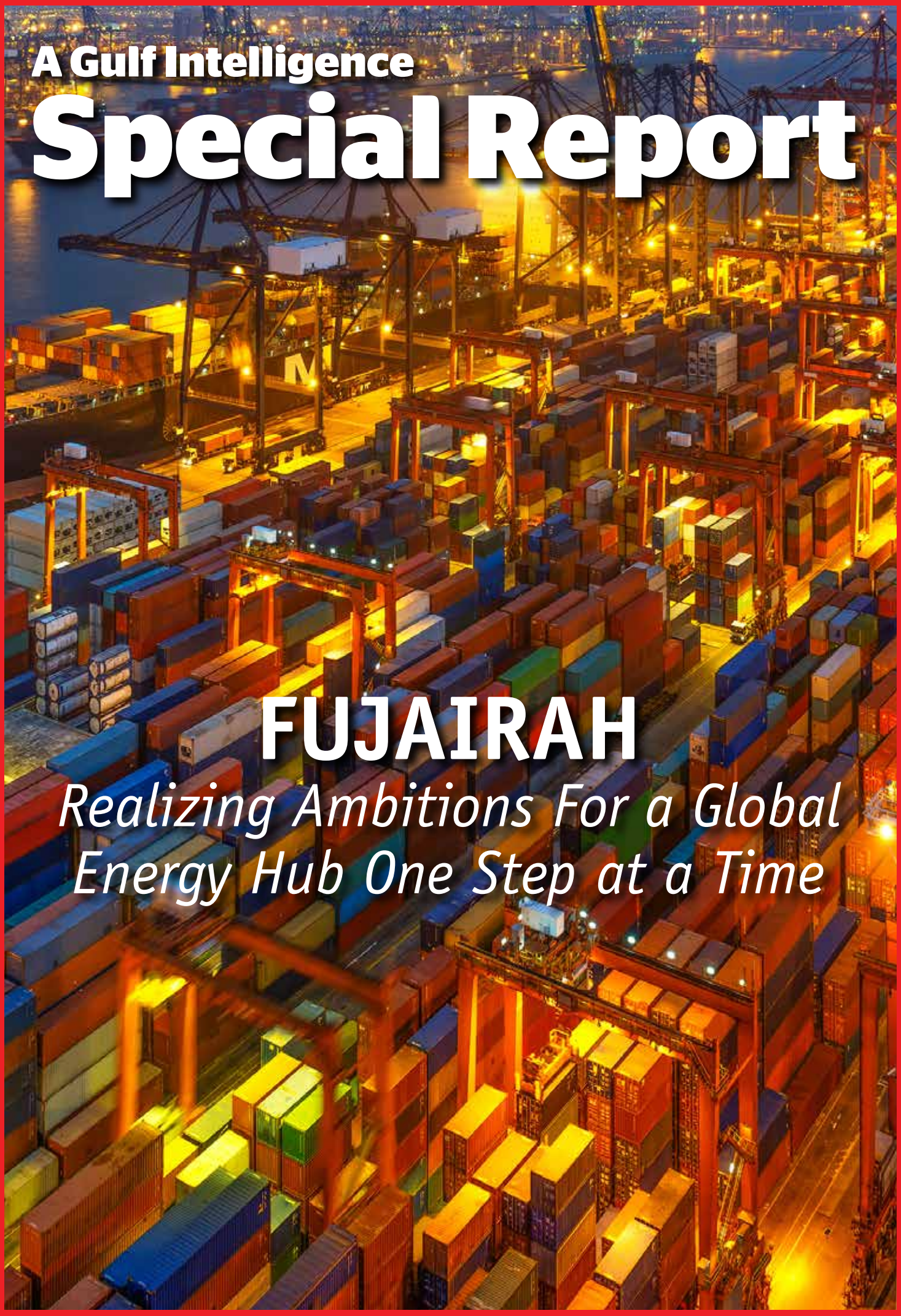
# Special Report



# FUJAIRAH

## *Realizing Ambitions For a Global Energy Hub One Step at a Time*

**Content**



# Foreword

"It was the best of times, it was the worst of times" - so Dickensian is the complexity of today's energy world plot that it can help to cut out all the noise by distilling your analysis down to the tale of two cities – Riyadh and Houston.

Easier said than done for the energy industry is living in a void of certainty. Oil prices are 15 months into a volatile collapse that has seen three 50% moves to settle at 6-year lows as supplies flow from all possible sources uninterrupted. OPEC, more like Riyadh, has abdicated its historical role as the swing producer – for now – letting the U.S shale debutante, aka Houston, take the throne.

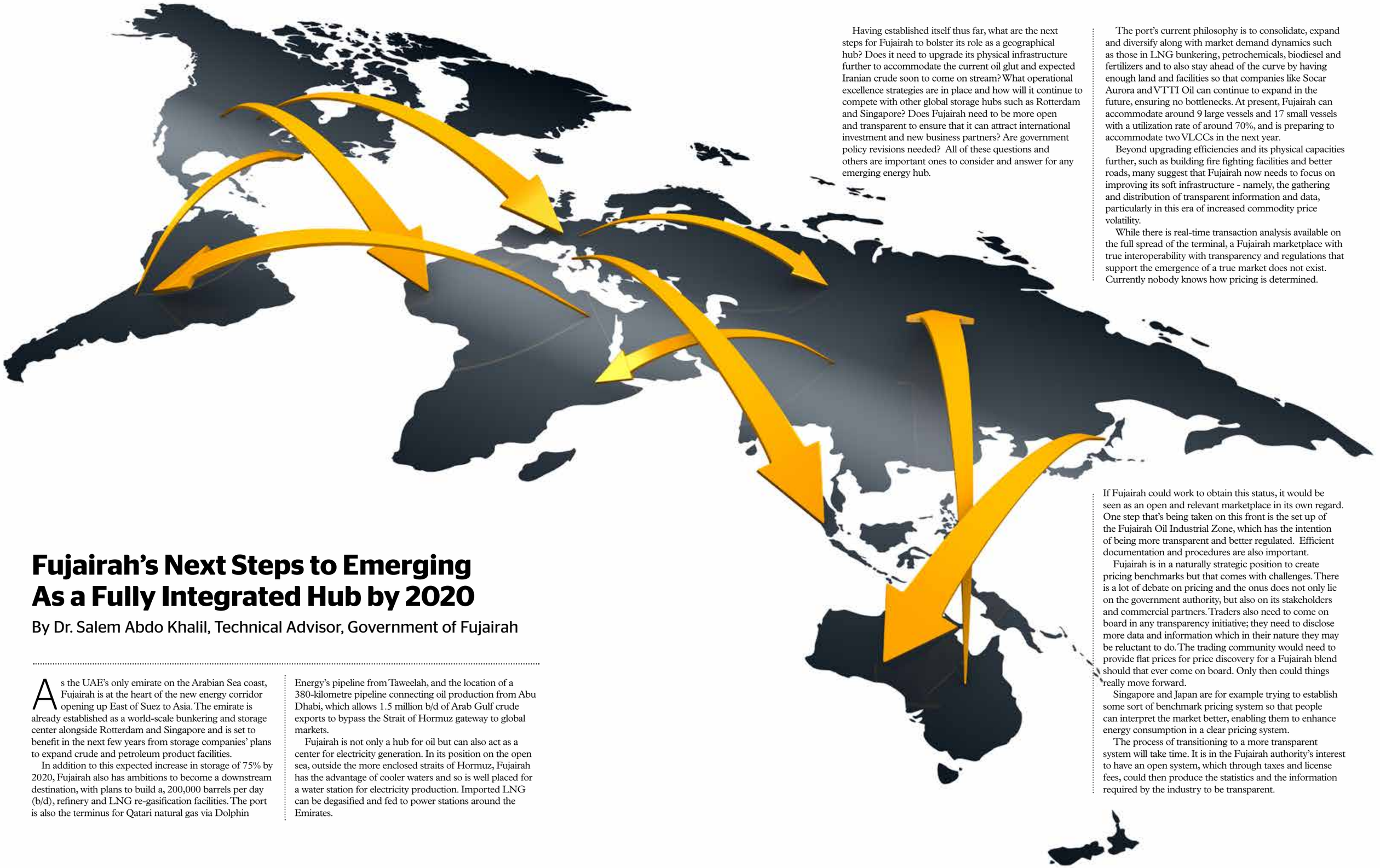
Against the backdrop of a spectacular oil glut that has global storage tanks bulging, the world's biggest powers have secured a historic agreement with Iran. In return the Islamic Republic has informed all that it could add 1 million barrels a day of capacity within a year of sanctions being lifted, and in the interim could flood the market with the 50 million barrels it has stored in floating tankers.

There is a third city that is a key player in this rubix cube of confusion – Beijing – as the 30 year economic miracle appears to be crashing to an end with China's voracious appetite for every drop of commodity it could get its hands on now quenched. This has led to a growing chorus of international voices charging that the Chinese have cooked the books leaving no macro statistic available as a reliable indicator for forecasting future demand.

It's hard to know who to believe, and there is nothing markets hate more than opaque uncertainty, and so like a stone dropping through water, the herd instinct is to sell as fast as you can. The IMF has said it expects China to report 6.8% growth this year. Yes, down from 7.4% last year. With 6.3% anticipated in 2016, but still decent – let's hope Ms. Lagarde is right!

Meanwhile, there could be a ray of sunshine emerging from West Asia, India and Pakistan. New Delhi is achieving Beijing's former growth rates north of 7%, while Islamabad enjoyed a welcome gift from Moody's with an upgrade of its bond ratings to a stable outlook. Now can the old enemies build new partnerships of future cooperation that could deliver integrated energy networks with the wider neighborhood – wishful win-win thinking?

Against this challenging backdrop, the Fifth Commemorative Edition of The Gulf Intelligence Energy Markets Forum welcomes you for a day of robust knowledge exchange in Fujairah, a city on the Indian Ocean trade corridor poised to emerge like Dickens hero Pip with Great Expectations.



# Fujairah's Next Steps to Emerging As a Fully Integrated Hub by 2020

By Dr. Salem Abdo Khalil, Technical Advisor, Government of Fujairah

As the UAE's only emirate on the Arabian Sea coast, Fujairah is at the heart of the new energy corridor opening up East of Suez to Asia. The emirate is already established as a world-scale bunkering and storage center alongside Rotterdam and Singapore and is set to benefit in the next few years from storage companies' plans to expand crude and petroleum product facilities.

In addition to this expected increase in storage of 75% by 2020, Fujairah also has ambitions to become a downstream destination, with plans to build a, 200,000 barrels per day (b/d), refinery and LNG re-gasification facilities. The port is also the terminus for Qatari natural gas via Dolphin Energy's pipeline from Taweelah, and the location of a 380-kilometre pipeline connecting oil production from Abu Dhabi, which allows 1.5 million b/d of Arab Gulf crude exports to bypass the Strait of Hormuz gateway to global markets.

Fujairah is not only a hub for oil but can also act as a center for electricity generation. In its position on the open sea, outside the more enclosed straits of Hormuz, Fujairah has the advantage of cooler waters and so is well placed for a water station for electricity production. Imported LNG can be degasified and fed to power stations around the Emirates.

Having established itself thus far, what are the next steps for Fujairah to bolster its role as a geographical hub? Does it need to upgrade its physical infrastructure further to accommodate the current oil glut and expected Iranian crude soon to come on stream? What operational excellence strategies are in place and how will it continue to compete with other global storage hubs such as Rotterdam and Singapore? Does Fujairah need to be more open and transparent to ensure that it can attract international investment and new business partners? Are government policy revisions needed? All of these questions and others are important ones to consider and answer for any emerging energy hub.

The port's current philosophy is to consolidate, expand and diversify along with market demand dynamics such as those in LNG bunkering, petrochemicals, biodiesel and fertilizers and to also stay ahead of the curve by having enough land and facilities so that companies like Socar Aurora and VTTI Oil can continue to expand in the future, ensuring no bottlenecks. At present, Fujairah can accommodate around 9 large vessels and 17 small vessels with a utilization rate of around 70%, and is preparing to accommodate two VLCCs in the next year.

Beyond upgrading efficiencies and its physical capacities further, such as building fire fighting facilities and better roads, many suggest that Fujairah now needs to focus on improving its soft infrastructure - namely, the gathering and distribution of transparent information and data, particularly in this era of increased commodity price volatility.

While there is real-time transaction analysis available on the full spread of the terminal, a Fujairah marketplace with true interoperability with transparency and regulations that support the emergence of a true market does not exist. Currently nobody knows how pricing is determined.

If Fujairah could work to obtain this status, it would be seen as an open and relevant marketplace in its own regard. One step that's being taken on this front is the set up of the Fujairah Oil Industrial Zone, which has the intention of being more transparent and better regulated. Efficient documentation and procedures are also important.

Fujairah is in a naturally strategic position to create pricing benchmarks but that comes with challenges. There is a lot of debate on pricing and the onus does not only lie on the government authority, but also on its stakeholders and commercial partners. Traders also need to come on board in any transparency initiative; they need to disclose more data and information which in their nature they may be reluctant to do. The trading community would need to provide flat prices for price discovery for a Fujairah blend should that ever come on board. Only then could things really move forward.

Singapore and Japan are for example trying to establish some sort of benchmark pricing system so that people can interpret the market better, enabling them to enhance energy consumption in a clear pricing system.

The process of transitioning to a more transparent system will take time. It is in the Fujairah authority's interest to have an open system, which through taxes and license fees, could then produce the statistics and the information required by the industry to be transparent.

# Lifting Iranian Sanctions and the Impact on Commodity Prices and Trade

By Gulf Intelligence

These are exciting times. Iran may finally have set aside its ambitions to develop nuclear weapons, if indeed it had those ambitions in the first place. And with this, the U.S., European Union and other powers have agreed with Iran to lift sanctions imposed in 2011 and 2012 associated with their suspected program. The deal, signed in Vienna earlier this year, and which most likely will pass intact through the U.S. legislative process, has already contributed to a range of factors that have reduced global oil prices to their lowest since 2009. Iran is, after all, the world's fourth-largest holder of proven oil reserves and the second of natural-gas.

But in terms of where we go from here with the impact of the deal on global energy prices and regional economies, there is little than can be predicted with any level of certainty. On balance and notwithstanding all the geo-political concerns, the deal is a good thing. For too long has Iran and its 78 million people been 'out in the cold'. The lifting of the sanctions associated with the nuclear program should help Iran resume its place as an integral part of the regional economy. But how it does this and how quickly is not all clear. The excitement the nuclear deal has generated has dissipated, as the cold winds of reality of what it's like to do business with Iran and the major hurdles that will remain even after the sanctions are lifted, have blown in. Forecasts, for instance, of how much additional oil Iran can pump in the short-term range from 300,000 barrels per day (bpd) to 1 million, and the timescale from 6 to 18 months, as sanctions are lifted and Asian buyers in particular, notably Japan, China and South Korea, are able to ramp up imports from Iran. Eighteen months is a long-time in the oil market, and there are so many other factors that contribute to price, not least geo-politics. Let's be honest, the Middle East region is probably the most geo-politically volatile region in the world today and Iran is no disconnected bystander. Other factors, such as OPEC-member-states policy, non-OPEC capacity constraints, global population growth and urbanization, will also play a crucial role.

***"The excitement the nuclear deal has generated has dissipated, as the cold winds of reality of what it's like to do business with Iran and the major hurdles that will remain even after the sanctions are lifted, have blown in"***

The scenarios for the development of Iran's oil and gas industry over the next few years are many but amidst the smoke and mirrors, the likelihood is that Iran will probably be able to add at least 300,000 bpd to the global oil market in the short-term as sanctions are lifted. In a second phase, international service companies will probably be able to support Iran in upgrading and optimizing its fields that will allow Iran to sustain higher oil-production levels, and in a third-phase, but probably not bearing fruit until after 2020, international oil companies will support Iran in developing giant oil fields that have been underexploited so far. The tendering of some 49 Iranian energy licenses in London in December will be telling in this respect.

Probably, however, the greatest impact over the next few years will be on trade flows in the region, both of energy—especially gas, but perhaps also refined products—and non-energy. Despite all the sanctions, non-energy trade with Iran has continued, if below the counter. As funds flow into Iran, the economy will pick up and, with it, investment and consumer demand, including for imports. Dubai, the great Gulf re-export centre, will certainly benefit.

Iranian gas could play a crucial role in supporting the Gulf power sector, given that so much Gulf gas production is linked to oil extraction. Further afield, Iran could finish its gas pipeline to Pakistan, which is sorely in need of such supplies, and expand exports to Turkey and on to Europe, with the added benefit—from an EU perspective—of reducing reliance on Russia. Linking Gulf Arab countries to Iranian gas should be fairly straight forward, especially after all the gas projects Iran have completed or almost completed, even since sanctions were deepened.

As always, however, nothing will be easy in the Middle East. Eager foreign companies may well have started knocking on Iran's doors but how financial transactions will be structured remains far from certain. Under the deal, U.S. sanctions will remain in place for up to eight years, meaning U.S. companies and persons will remain restricted in dealing with Iran. In addition, as every U.S. dollar transfer passes through New York, alternative currencies—including the euro and perhaps Asian currencies—will need to be used to finance transactions. Given the dollar's global dominance and how international banks are structured not to transact with Iran, making the necessary changes—especially as Congress is unlikely to legislate on anything in 2016 given it's presidential election year—will be easier said than done.

Notwithstanding all the difficulties, challenges and risks associated in working with Iran, it's still better to have this nuclear deal than not, with all the potential opportunities to which it gives rise. For those of us interested, and there are many of us, we should all be thinking about Iran.

# Winners and Losers As Refining Capacity Ramps Up Along The New Silk Road

By Dave Ernsberger, Global Editorial Director of Oil, Platts

The global refining industry is in the midst of a major transition, triggered principally by a shift in demand centers away from developed nations - dominated by the US - towards developing countries. Gasoline and diesel prices, long dependent on demand from the West, now fluctuate on the back of a soaring thirst for crude oil and fuels in the Middle East, Asia, Africa and Latin America. The long-standing link between global crude prices, US gasoline prices and Gulf Coast marginal refining economics has been broken, creating a more challenging refining industry structure.

Gasoline demand in the US and Europe faces further declines in the future as more hybrids and electric vehicles enter the market and bio fuels become more competitive. Oil price volatility and environmental concerns and costs are also pressuring margins, leading to refining asset restructurings and sales, and even bankruptcies as in the case of Europe's Petroplus Holdings which shut down in 2012. In Asia, Australia, having shut three refineries down in recent years, is now a net importer of refined products, and has another refinery closing later this year. And Japan has a structured plan to consolidate its four remaining refineries over the coming five to seven years.

***"Gasoline demand in the US and Europe faces further declines in the future as more hybrids and electric vehicles enter the market and bio fuels become more competitive"***

In the midst of these refinery reductions, and yet while the global market remains oversupplied, national oil companies in the Middle East and Asia are planning to ramp up refining capacity, encouraged by rising domestic demand and potential new export markets. Per capita demand in China and South Asia is currently about 6 barrels a year. By comparison, in Western Europe it is closer to 16 and in the U.S. around 20. It is unlikely that South Asia and China will hit U.S. levels of per capita consumption but as urbanization continues and as demographics change, they could edge closer to the European level. An expected doubling of demand over the next 10 or 15 years seems encouraging for refiners in the Middle East and Asia.

Taking one country's demographics, about 70% of Pakistan's 200,000 plus population is young and just entering the earning phase so future demand for cars, petrol and plastics seems secure. Looking more broadly, if one considers that 2.2 billion people in today's world are living below the "hydrocarbon" poverty line, the potential for refined product demand growth is rendered huge potentially.

In the past three years, approximately 4 million barrels a day (b/d) of additional refining capacity has been added to the East of Suez market. Around 2.5 million b/d is expected to come on stream sometime in the next five years in the GCC - from the likes of refineries being built in Duqm, Oman; Jazan in Saudi Arabia; Alzore in Kuwait and Fujairah in the UAE. Iran has said that post-sanctions, it could boost its oil refining capacity to 3 million b/d by 2018 from the current 1.9 million. And a further 4.5 million b/d is expected to come on stream in South Asia, Far East Asia and Southeast Asia by 2020.

While world demand is growing quickly and can accommodate another couple of million barrels a day of refining capacity beyond what's on board today, how all of these planned capacity additions will in fact be absorbed longer term and what impact they will have on the sector's economics remains to be seen. Which industry stakeholders, countries or regions will be most challenged in coping with the current change? Will it be investors or refinery owners themselves with excess capacity looking for a home? Do any of the new refineries currently in the planning stage have a particular advantage over others?

India is at present comfortable with its refining capacity, but when one looks at domestic demand projections for the next 15 years, one would certainly say it seems justified to be planning three more refineries. The country is also looking to expand its exports of refined products, being strategically well placed to supply lucrative markets in Africa and Asia. Modern refineries in India like Essar and Reliance have also proven that if run and managed efficiently, refineries can make a profit even if they need to source crude from further afield.

And surely it makes more sense to build a refinery in Saudi Arabia for example, than for it to export its crude to Singapore and then export refined diesel back? The same could be said for Pakistan and West Africa. On the other hand, there are sometimes of course net cost advantages that come with certain trade flows of crude and product.

Without a doubt, the business model for refineries has changed. For example, refineries producing less than 100,000 b/d are no longer considered competitive, at least on an IRR basis. A case in point is Pakistan where most refineries are producing below this level and as such need to be supported by public funds to remain operational. That having been said, the country is planning for its new 600,000 b/d refinery in Gwadar port to be operational by 2020.

Economies of scale, adoption of new technologies and forming partnerships when needed with feedstock suppliers, will have a significant impact on refinery operators' economic survival going forward.

# At a Time of Contango, Opportunities for Fujairah

By Bora Bariman, Head of Energy & Marine - Corporate & Institutional Banking Group, National Bank of Fujairah

These are critical times for all stakeholders in the global oil industry. Over the past 15 months, crude prices have more than halved to trade below the $50 a barrel mark due to swelling supplies. The US shale boom is still playing out as producers keep pumping at high levels although growth of new capacity is slowing, while OPEC has remained committed to its Saudi-led strategy of pumping at full throttle even at the expense of prices. Non-OPEC countries such as Russia have shown no intention of heeding calls for concerted action to address today's vast market oversupplies, even though OECD commercial inventories have been breaking new record highs since April, and preliminary numbers for August suggested that stocks rose again to stand just shy of 3 billion barrels of crude and products. That's well over the 2.7 billion barrel average in storage during the first quarter of 2009 when Brent averaged $45.72 a barrel, and the annual average of 2.6 billion barrels in 2001 when Brent was all the way down in the $20s.

In addition, the deal reached between Iran and six world powers in June is expected to lead to nuclear-related sanctions being lifted next year – and to additional crude and products to start flowing to the market although the pace of that is not quite clear. At the same time, the global economic engine is stuttering, with some concern being voiced over growth in China in particular. Against this backdrop, the outlook for world crude markets is all but encouraging. But even with oil prices hovering below $50 a barrel since falling off the cliff in mid 2014, some sector stakeholders are well positioned to take advantage of present market conditions. Today, we're in a contango market, which means the spot price of oil is lower than future contracts. Importantly, the contango has become even more pronounced over the past two months.

Given today's market environment and crude surplus, stockpiles have been filling up quickly around the globe. For traders with access to physical oil and storage, this means they can make substantial profits in this market. According to Bloomberg News, on the Caribbean island of St. Lucia, trading companies have hired tanks to store crude as they're responding to the market's deepening contango. At the same time, traders are increasingly using oil tankers to add to their storage capacity, while national oil companies are building up their own inventories. In Fujairah, the only UAE emirate located outside the strategic Strait of Hormuz at the Arabian Sea, Sharjah-based Gulf Petrochem plans to spend some $80 million to expand locally and in East Africa. Other local and international companies based in the emirate, including tank storage and trading firms, are doing the same thing as demand for storage capacity continues to rise.

Going forward, Fujairah is well placed to benefit from today's market environment and outlook. Its location between Europe, Africa, the Middle East and Asia means the emirate has always had a distinct geographic advantage along a critical tanker and trade route, which has provided the foundation for its success in attracting global tank storage and trading and shipping companies to the once sleepy emirate. Oil bunkering and storage services are now an integral part of the local economy and have provided benefits to the wider UAE and in particular Abu Dhabi, whose crude oil pipeline to its smaller neighbor has provided a critical outlet for its crude outside Hormuz. At the same time, the arrival of Abu Dhabi crude is providing an opportunity to expand local downstream activities. Plans are being drawn up for a new refinery, which in turn could add significant value to Fujairah.

Industry officials say the emirate has done a good job positioning itself as a global bunkering and storage hub alongside Singapore and Rotterdam, not just due to its geography. Infrastructure in and around the Port of Fujairah is well developed and advanced compared to other parts of the world. With today's market conditions, Fujairah has the opportunity to expand further on its achievements thus far. Industry officials attending Gulf Intelligence's Energy Markets Forum 2015 in Fujairah in September identified three key recommendations that would enable the emirate to reap benefits from a market in contango – and beyond:

1) Build more storage capacity, even if today's contango environment isn't going to last forever. The need for additional crude and products storage isn't going to subside any time soon given global demand trends.

2) Build flexibility into storage facilities by adding more blending capabilities. This will enable more companies to use the emirate as a base not just for storage.

3) Further advance existing infrastructure such as jetties in line with companies' requirements, thus accommodating growth and allowing for uninterrupted services.

# Fujairah Oil Terminals – Realizing the Vision

By Albert W. Stromquist, Partner & Managing Director, Lanstrom Advisors

The Gulf Intelligence Energy Markets Forum recently held a timely panel discussion exploring the potential for synergies between the national oil company and Fujairah Port oil terminal operators.

The thesis was rather simple: the NOC exports its signature light crude from Fujairah Port where it deploys eight million barrels of proprietary operational storage; owing to softness in the current market, the NOC has capacity in excess of contract requirements and seeks short term strategic storage, and is reported to be chartering floating storage – an expensive and risky option in itself; and a private oil terminal operator in Fujairah meanwhile wishes to lease crude oil storage to the NOC.

In principle, the elements of a transaction are obvious, but the obstacles against, as we heard, are multiple: the NOC has as long established precedent of transporting and storing its crude within its captive proprietary assets; the NOC is mindful of the brand value of its signature light crude grade and does not wish to risk value degradation by contamination or dilution from contact with third party assets; the NOC storage terminal is not physically interconnected to the private oil terminals; the NOC terminal was developed and built by a different sovereign investor and ownership and control are slowly transitioning to the NOC, thereby confounding communication; and the private terminal owners do not actually have ullage to offer the NOC at this time, but are prepared to build new capacity to meet demand.

We learned that the private oil terminals are interconnected through an efficient and well-regulated loading, discharging and transfer system for crude and products. The terminals operate under a set of strict protocols developed and administered through an ad hoc Operators' Association, including the port regulator, that provide quality control, safety and quality assurance. Moreover, the port regulator acknowledges that there are no obstacles to constructing an interconnector from the NOC terminal to the private terminals once there is demand for private storage. Finally, the terminal owners have ultimate primacy over investment decisions to build new crude storage capacity. These observations appear to address three of the impediments to the private sector's engagement with the NOC; physical connectivity, capacity and rigorous assurance on protection of crude and products integrity.

The outstanding issues/obstacles are not operational, they are policy driven. Presently there exists no structured body to engage decision makers in Abu Dhabi on the strategic importance and evolution of Fujairah as a global oil terminal.

Observed through the lens of crude oil customers and oil traders, a strong partnership between the NOC and private storage operators would be a welcome development. In fact, in a straw vote among participants to the panel discussion the concept received an overwhelming endorsement. Such a partnership would begin to move the market toward the goal of establishing new Middle East benchmark crude based on the NOC's Murban light grade, driven by enhanced liquidity in physical stocks trading through the Port of Fujairah and the opportunity for price discovery and robust trade in spot and futures contracts. The economic benefits would flow to all of the stakeholders; NOC, the Port, the terminal owners and operators, and customers.

The short answer to this question is the establishment of an organized and focused engagement between stakeholders and policy decision makers. Such an effort needs to be driven and supported by a coordinated group of customers and terminal operators with a vested interest in the outcome.

The mechanics are simple and numerous models can be found among terminal operators in the Netherlands, Canada, and the USA. Operators in these countries are organized by Public Affairs Professionals who design policy options, communications strategies, and cost-benefit models for presentation to government decision makers.

For the uninitiated, "Public Affairs" refers to a well-recognized professional discipline of advocacy conducted by seasoned government and industry operatives who forge links between the public and private sector. The practice of Public Affairs is embraced by corporations, trade associations, consumer groups, non-government organizations, and the like globally to ensure that government decision makers have the tools to formulate the most effective public and commercial policy possible.

Public Affairs and Professional Advocacy is well known to the political leadership in the region who routinely retain professional advisors to represent their objectives to foreign governments and markets.

The panel discussion, hosted by Fujairah Oil Terminal, was a productive starting point. It is now incumbent upon the Terminal Operators and related port interests to organize themselves and fuel a concerted public affairs initiative which engages decision-makers in Abu Dhabi.

Such an organized approach by the private sector would serve the best interests of the UAE as a nation and the local community in Fujairah.


# 2020 Vision: What Are the Key 'Disruptors' & Trends for NOCs & The Industry

By Petri Pentti, Chief Financial Officer, Emirates National Oil Company (ENOC)

The oil and gas business has always been cyclical in nature, but what we are witnessing at the moment can only be described as a once in a generation change to the wider sector dynamic.

Brent future prices have halved in 12 months, perceived oversupply rather than a crisis of demand is influencing market sentiment, unconventional is challenging conventional production, legislative developments may see trading firms re-categorized as banks, and producers' tussle for market share has gripped the industry.

National Oil Companies (NOCs) at the heart of the industry are also undergoing profound changes. Whether Middle Eastern or Latin American, net importing or exporting, upstream or downstream players – they have become externally facing and internationalized like never before, taking on the title of International NOCs or 'I-NOCs' in the eyes of many.

The nature of government patronage is also changing. It is going beyond a singular focus on safeguarding the national resource, towards a renewed emphasis on technological innovation, good corporate governance and supportive policy framework. However, this holistic belief needs to be appropriately contextualized and tempered.

Not all NOCs are equal or have similar objectives. NOCs of net oil importing nations, such as China's CNPC or India's Bharat Petroleum and those of net exporting nations - the UAE's ADNOC and Qatar Petroleum - are very different creatures of habit. While nature and objectives vary, an era of low oil prices has made transformation the unifying buzzword for NOCs and their founding governments alike.

To offer a case in point, the Emirates National Oil Company (ENOC) has undergone a complete transformation over the last three decades, and at a heightened pace since 2010. Historically a Dubai-based midstream and downstream asset holder supplying retailers and operators, the ENOC of 2015 is now a fully integrated oil company in terms of the value chain. Our recent acquisition of Dragon Oil has brought 100,000 barrels per day of oil production to our portfolio. This purchase coincidentally happened in near tandem with another key development in the UAE – that of the Ministry of Energy decreeing earlier this year that as of August, domestic gasoline and diesel sales would be linked to global prices. This alleviated financial exposure related to subsidies for the country's NOCs.

And the situation is by no means exclusive to the UAE. Anecdotal evidence suggests other Gulf Cooperation Council countries are visiting the subject. Beyond the region, India, Indonesia and Malaysia have cut subsidies to alleviate the burden of their respective NOCs.

Such developments are concrete steps towards a sustainable 2020 vision for NOCs, particularly in this new era of low oil prices. Other measures which would be conducive to this would be more comprehensive policy frameworks, a clear innovation agenda, ensuring better market intelligence, bolstering corporate governance, investing in nurturing talent, and non-core asset divestment while seeking newer attractive opportunities.

None of the above would compromise the primary role of NOCs acting as stewards of the national hydrocarbon resource. Quite the contrary, addressing these issues would ensure the resource itself and government patronage is utilized wisely in volatile times.

Starting with talent, NOCs need to enhance their brand equity in an effort to become more appealing to the millennial generation, for whom the industry has not been a natural choice. There is a direct connection with innovation here – oil and gas companies in general, not just NOCs, need to adopt technologies and ramp up research and development, recognizing that these are key to their future survival. If the skills and innovation gap and efforts to retain talent by implementing a systematic process of succession and knowledge transfer are not addressed today, it could come to hurt the industry in ten years or so.

Bolstering corporate governance and an ability to cope with evolving regulatory frameworks is another key matter. Major investment banks and several IOCs are in retreat from the physical commodities market in light of new U.S. and European regulations on capital adequacy requirements. However, several NOCs are unfazed by the new developments. Only up to date market intelligence can ensure they are not caught off-guard. Improvements on the anti-corruption and corporate diligence front must also continue at pace, with the recent Petro bras scandal only serving as a stark reminder.

Finally, as the old adage goes "fortune favors the brave" and NOCs need to be bolder when it comes to divesting non-core assets and bidding for viable opportunities in the current climate. 2016 is likely to be a good year for mergers and acquisitions in the oil and gas sector Not all assets on offer would be attractive, but some may be - in particular some of the low margin assets currently operating with hedging plans taken out before the slump in oil prices. The industry's expectation is that these hedges will start rolling off as early as the first quarter of 2016, inflicting pain on low margin plays.

Several NOCs have sufficient funds, and there is a widely held belief they would be looking to buy assets or companies at the right valuation at the opportune moment.

Furthermore, for quite some time interest rates have been extremely low. There are plenty of global long term investors, as well as short to medium term investors, hungry for better yields. Infrastructure funds, private equity firms and sovereign wealth funds could emerge as potential investment partners and in that process, blur the lines even further and firmly entrench the I-NOC model.

# The Time is Right: Creating Energy Pathways to Link the Gulf & South Asia

Source: Feature Interview with HE Abdullah Bin Hamad Al-Attiyah, Chairman, The Abdullah Bin Hamad Al-Attiyah Foundation for Energy & Sustainable Development - Fujairah Sept. 2015

Oil and gas markets are heralded as the beating heart of the Gulf's flourishing economies, but carving out a united infrastructure has always proven more complicated. The outlook is set to become even more convoluted as China and India seek deeper integration with South Asia – incorporating the Gulf, Iran, Pakistan and even Afghanistan and Bangladesh. Despite the multifarious geopolitical hurdles, the negative impact of lower oil prices and long-term rising energy demand forecasts means an integrated framework looks more likely than ever.

**Asian Game Changers**

Dynamic new players from South Asia are entering the already competitive mix, with China, India, Pakistan and a possibly sanctions-free Iran leading the charge. India's determination in the race for energy supply security from South Asia and the Gulf is reflected by Prime Minister Modi's perpetual visits to any country with commodities to sell and a recent 8-day tour across Central Asia. It has not been a smooth road for India, with a recent UN resolution dashing the country's hopes for a natural gas pipeline from the Gulf because the route traversed Pakistan's territorial waters. Meanwhile, plans for a 2,700km Iran-Pakistan-India pipeline are frequently stalled by political complications.

India's concerns are rising around the fact that Asia's emerging hegemon, China, will position its economic and political might to strangle India's energy supplies from the Gulf. India has earmarked the UAE as its gateway to the entire Middle East and total trade between India and the GCC is at around $270 million. India is also inviting GCC investors to build refineries, pipelines and wider energy infrastructure on Indian soil to support its long-term goal of becoming a 'refining superpower' by 2025.

Meanwhile, eyes are on China's push into South Asia, especially following its large investment in Pakistan's deep-sea port in Gwadar. The site puts China within a stone's throw of Iran's border and in turn, some of the world's largest energy reserves. Only time will tell if China, the world's second largest importer of oil and petroleum products, is locking in more supply routes, or if Beijing hopes to use its energy and related infrastructure in South Asia to influence the Middle East's energy policy.

Others argue that economic drivers are the sole reason behind China's push, as Beijing tries to build an 'Economic Corridor' that encompasses a wide array of businesses outside the energy spectrum. Pakistan simply marks the first pit stop; its geographical position between the Middle East, Iran, India and China places it as a strategic emerging hub. Next door, there is budding appetite to build energy infrastructure – pipelines, specifically – in Afghanistan's stable regions. But all these objectives require considerable financial and political backing; China's integral involvement is inevitable.

**Iran's Bold Ambitions**

Iran's pending re-emergence onto the global energy stage could shift the dynamic. Tehran has made it clear through global headlines that the country hopes to boost current oil production from around 3.1m b/d to 4m b/d almost immediately after sanctions are lifted and then to 5.7m b/d shortly thereafter. But Tehran's vague schedule means it remains to be seen whether either target is realistic. Sitting on the world's second largest natural gas reserves, Iran could also play a pivotal role in a united energy infrastructure as a supplier and as a conduit for India's access.

But this will take considerable time as Iran has consistently had to import gas, and the development of the South Pars field - the world's largest gas field - is often delayed. Tehran must first establish itself as a credible LNG exporter before it can expect to widen its client base, as Qatar did in the nineties. It also has to reverse the damage caused by its failure to deliver on particular projects, such as its dispute with Dana Gas over a supply agreement that ended up in an international tribunal last year. There should be more clarity over whether Iran can reliably supply the pending gas agreements with Pakistan, Iraq, Oman and others when sanctions are fully lifted.

**Step-by-Step**

Geopolitics are oft the cause of stagnating oil and gas projects in the GCC and beyond. But some ideas have successfully navigated the political minefield. This is most clearly highlighted by the modern infrastructure at Fujairah. It has leveraged its strategic location on the South-South energy corridor to become a trading hub that could soon rival behemoth hubs like Singapore and Rotterdam. Other success stories include the launch of the Dolphin pipeline in 2007, which connects Qatar, Oman and the UAE in a bid to tackle the GCC's chronic gas shortage – the region's first cross-border refined gas transmission project.

The popularity of LNG imports and the war to ring fence market share will continue to rise as the high fiscal costs are offset by the political flexibility it offers. 'Floating pipelines' are generally a safer alternative to multi-billion dollar attempts to lay pipelines across many borders. Supply in what is a volatile region can easily be redirected to peaceful ports. For example, embattled Yemen's access to a gas supply lasted months longer than supply from the beleaguered oil fields, as Yemen LNG stored an urgent supply offshore its port city of Aden.

Qatar, the world's biggest LNG exporter, is still building regional trade ties, having signed export contracts with Kuwait, and potential long-term deals are brewing in Pakistan and Jordan. Many more Gulf countries are on Qatar's hit list; Oman and Bahrain, plus Saudi Arabia if the oil giant opts to preserve its oil and use gas instead for power generation.

But India, like all countries in the South Asian belt, says LNG is only one piece of the energy jigsaw and it must be complemented by land-based pipelines and facilities. India proposes a pipeline to serve its northern population could track from the Middle East to India, from Central Asia to India, even Russia or Myanmar to India.

But proposals are still only ideas, words scribbled on pieces of paper circulating energy ministries across the Gulf and South Asia. Action is the missing ingredient.

## CONTENT

## The Outlook is Bright for Fujairah

# The Energy Sector's Transformation Offers New Opportunities for Fujairah

**BY H.H. SHEIKH SALEH BIN MOHAMMED BIN HAMAD AL SHARQI, CHAIRMAN OF THE DEPARTMENT OF INDUSTRY AND ECONOMY, FUJAIRAH & CHAIRMAN OF THE BOARD OF PORT OF FUJAIRAH**

Transformation has been the overarching theme in the world's oil and gas markets in recent years. The drivers behind this transformation are as diverse as they are complex.

Energy production and consumption centers are shifting: Five years ago, shale developments in North America weren't on most people's radar – today shale oil and gas are integral parts of the global energy debate because of their impact on trade flows and – as witnessed in recent months – on prices; oil prices have fallen well below the $100-a-barrel mark amid abundant supplies on the back of record US output levels and despite geopolitical volatility. The long-term energy demand outlook meanwhile continues to point up, thanks to rising consumption in Asia, Africa, Latin America and the Middle East. At the same time, new technologies continue to push the industry's boundaries, enabling the development of ever-more remote and complex hydrocarbon reserves.

As the global energy sector is transforming so is Fujairah, the UAE's only emirate located on the Arabian Sea coast. Geography puts Fujairah at the crossroads between Europe, Africa and Asia, and places it at the heart of the new energy corridor opening up East of Suez to Asia. The emirate has established itself as a world-scale bunkering and storage center; home to some of the biggest company names in energy. Additionally, Fujairah has become an important crude oil export center and is on the verge of emerging as a downstream destination – all thanks to a unique mix of geography and the strategic vision of the UAE's rulers.

This vision has been reflected most noticeably in the construction of the Abu Dhabi Crude Oil Pipeline, which came on stream in 2012 and provides Abu Dhabi with an export outlet for crude from its Habshan field via Fujairah. Arguably a game changing development for the emirate, the strategic pipeline has added further momentum to Fujairah's already tremendous growth over the past decade and bolstered its position as a destination for investments along the energy value chain, with refining, petrochemical and LNG regasification facilities all to be added in the near future.

> "Fujairah's increasingly international posture makes the emirate a platform for local, and regional, companies to expand their footprint into other parts of the world by utilizing the existing infrastructure in the emirate."

On a global level, the importance of strategic pipelines and storage in key locations such as Fujairah is becoming even more important at times of increased geopolitical instability. It should therefore not come as a surprise to anyone that new crude and product storage will continue to open in Fujairah in coming years. After all, pipelines and storage facilities are crucial to keeping the world's economic engine running, ensuring perennial access to much needed oil and gas supplies, and providing long-term supply and demand security for both energy producers and consumers. In addition, with global energy demand on an upward trajectory, rising volumes of oil, gas and hydrocarbon products are being transported to and stored in key locations and leading energy industry hubs such as Rotterdam, Singapore and Fujairah, from where they are forwarded to consumers.

The economic contribution of oil and gas transportation and storage infrastructure is significant. The spin-off benefits of pipeline infrastructure extend deep into the downstream sector, with refineries, petrochemical plants and distribution companies generating gross domestic product (GDP) contributions and providing employment and income. On top of this, Fujairah's increasingly international posture makes the emirate a platform for local, and regional, companies to expand their footprint into other parts of the world by utilizing the existing infrastructure in the emirate.

With this in mind, the combined initiatives under way in Fujairah will not only add further to the emirate's aspirations of becoming a truly global energy hub; they will also bring tremendous benefits to the local economy and support the emirate's ongoing development in line with the Fujairah 2040 Framework Plan.

As the transformation of world energy markets and Fujairah continues, there can be little doubt that the emirate's outlook remains bright. ■

*H.H. Sheikh Saleh Bin Mohammed Bin Hamad Al Sharqi, Chairman of the Department of Industry and Economy, Fujairah & Chairman of the Board of Port of Fujairah*

# Pipelines and Storage at Times of Geopolitical Instability

*Source: An industry roundtable conducted in Fujairah under the Chatham House Rule*

**MODERATOR**
How does the arrival of the huge crude oil pipeline from Habshan to Fujairah transform the potential of the UAE as an energy hub?

**FUJAIRAH OFFICIAL**
This is a 36-inch pipeline with a current capacity of 1.5 million barrels per day, which is 70 percent of Abu Dhabi's production capacity. The pipeline can go up to a capacity of 1.8 million barrels per day, our storage facilities are at eight tanks of one million barrels each, and we have foundations to add another four tanks.

**MODERATOR**
The pipeline has been an economic game changer for the Emirates, a huge source of energy now available to store, here in Fujairah. But does it risk discouraging diversification of the economy?

After all, people have tried to build diversification off the back of major energy projects for example in Saudi Arabia, where it sometimes hasn't worked. What are you going to do differently?

**FUJAIRAH OFFICIAL**
Being an economy that is dependent on oil is a concern, but the UAE now looks at crude oil as a raw material for other industries. Abu Dhabi has a very comprehensive program to develop better chemicals so this is an example of diversification and added value.
Similarly, here with the storage in Fujairah, we don't have our own oil so we are planning to refine better chemicals. And from better chemicals, we can then go onto develop another chain of projects which doesn't require seafront facilities, and so on.

**MODERATOR**
What could be done to make it easier for you to make a bigger commitment here in Fujairah?

**OIL TRADER**
I believe Fujairah can be the energy hub in the region; it has all the necessary requirements to be successful, from market participants, to investors and suppliers.

Like anything else, if you create the infrastructure, then the demand will come as people find a way to participate in the market. Every trader knows that to have a successful market you need storage, liquidity and money and all three things are available in Fujairah today so I think it's just a matter of time and I believe the private and public sector should work together to transform Fujairah into an energy hub.

**MODERATOR**
Do you think that the GCC faces any difficulties politically or with regards to allocating the kind of capital required to build more of this pipeline infrastructure that's still needed?

**OIL TRADER**
I don't think there's any lack of funding; in fact there's a lot of idle money looking for a proper opportunity, whether it's a private-public partnership, private sector entirely, or governmental. And there is definitely some integration and cooperation on all levels amongst GCC member states, especially on electricity.

**FUJAIRAH OFFICIAL**
I agree - I think the GCC are in support of all infrastructure projects which link them and consolidate them together.

**MODERATOR**
What's the European experience on pipeline logistics and how can that inform Gulf nations?

**EU OFFICIAL**
From the market point of view, pipelines are security for the producer and consumer. We have 70 percent of our gas supplies come by pipelines and more than 30 percent of our gas supplies are via LNG. So nobody knows better than the EU how important pipelines are to the free market.

> "Every trader knows that to have a successful market you need storage, liquidity and money and all three things are available in Fujairah today so I think it's just a matter of time and I believe the private and public sector should work together to transform Fujairah into an energy hub."
>
> *Oil Trader*

Secondly, when you see the geopolitical tensions in Europe, you see how pipelines and storage become strategically important in terms of security. Despite what's happening in the Ukraine at the moment, we don't have an energy crisis in the EU because we have pipelines and storage.

Thirdly, we have market prices which nobody is going to interfere with - however, even in case of disruption, pipelines and storage strategically provide spare capacity.

**MODERATOR**
Given that pipelines and storage have been so successful in insulating the EU in this very difficult time, do you think that there's an argument for the EU to increase its commitment towards strategic petroleum reserve on a scale that the U.S. has in place? The U.S. has something like 700 million barrels of oil in storage.

**EU OFFICIAL**
If you take the International Energy Agency in Paris, its members have more than a billion barrels of oil stocks - so can you imagine what we could do with these stocks.

What's happening now in this region is highly important for the future. When we speak about pipelines, you have the question of third-party access; everybody should have access if there is spare capacity. You have the question of bunkering; you should never accept that someone will control your strategic pipelines.

These are areas where we would very much want to continue working with the region, in particular to establish a regional gas pipeline network system on the basis of the EU model.

**MODERATOR**
How is the nuclear power development in Abu Dhabi going to change gas demand in the UAE? Is it going to free up natural gas currently being used for desalination and power generation, potentially for export at some point, and maybe from Fujairah?

> "Being an economy that is dependent on oil is a concern, but the UAE now looks at crude oil as a raw material for other industries. Abu Dhabi has a very comprehensive program to develop better chemicals so this is an example of diversification and added value."
>
> *Fujairah Official*

**FUJAIRAH OFFICIAL**
When the four stations of the nuclear power station are ready, that will still only meet 20 percent of the total requirements of UAE, and the country is continuously expanding. So nuclear power development is diversification but it's not a replacement of natural gas.

**MODERATOR**
What difference will Iran make to this story over the next 10 years? At some point there is going to be a deal and Iran is going to start exporting a lot more gas and a lot more oil and there may be an impetus to have pipelines coming from Iran into the UAE, and maybe even electricity from the UAE going to Iran – How will that change things?

**OIL TRADER**
I'm not sure about the next 10 years, but at least in the short term, if a deal happens, it is going to have an impact.

The Iranians more or less are starting to build their own facilities on the other side of the Gulf so in the short term that may bring additional capacity, but it won't be as big as Fujairah, so it won't have a negative impact. Fujairah is still the only port in the region of a certain magnitude and diversification in terms of quality of storage. And the beauty of it also is that most of the terminals that are being built now will have full flexibility to switch between different products. This is very important.

**MODERATOR**
Could you envisage a day where we could see an onshore liquefaction plant in Fujairah that is processing Iranian gas and shipping it?

**FUJAIRAH OFFICIAL**
I don't see why not - if we can acquire natural gas directly from Iran and build an LNG plant for exports, this would be good. I believe there are negotiations with Oman to have a pipeline connecting from Iran to Oman, and if this could be extended to Fujairah and the UAE, this would be welcome.

**MODERATOR**
Fujairah is the second largest global oil bunkering terminal – there's a growing market now for LNG bunkers – is Fujairah well equipped to be a contender for this?

**OIL TRADER**
There's a bit of a risk for this because a lot of ships are being converted into LNG utilization instead of fuel oil. But I'm sure Fujairah will pick up on this very rapidly;

> "The energy sector should be a jobs creator and we do have global challenges, such as the environment, so we want to extend our technological and R&D cooperation with the GCC and other countries in the region, to find technologies that can handle all these challenges."
>
> *EU Official*

it will simply need to have proper gas tanks and proper barges that can transfer the gas, just like the bunkering which is taking place right now. This change to LNG is worldwide but it is important for Fujairah to keep up in the next few years. Major LNG carriers like Qatargas for example have started to add a couple of ships, either newly built or converted.

I would like to raise another point here – on the importance of new technologies.

For example, we are talking to two U.K. companies about compact gas to liquid technology – not conventional GTL. They have been quite successful, and are building their first plant in Kazakhstan.

Then you have another new super technology which came out in the U.S. which makes coal as clean as nuclear power but without the dangers. It's called "coal direct chemical looping". Basically, instead of burning the coal, it just heats it up and utilizes the heat to produce energy.

All of these types of new developments will impact the viability of certain current pipelines and storage centers.

**MODERATOR**
If you look at fracking and how people viewed that technology ten years ago, many have been surprised by what's happened.
Are there any other big technological leaps that are a concern to the Port of Fujairah or to the wider hydrocarbons industry? What about renewables like solar and wind?

**EU OFFICIAL**
You touch on a relevant point. The energy sector should be a jobs creator and we do have global challenges, such as the environment, so we want to extend our technological and R&D cooperation with the GCC and other countries in the region, to find technologies that can handle all these challenges.

**FUJAIRAH OFFICIAL**
This is something to consider, but as far as Fujairah is concerned, for the foreseeable future it's oil that will be in demand, either as a raw material or as an energy source. And this needs to be moved and stored and that's what the Fujairah facility will remain, regardless what happens with technology. ■

# The Race is on as Middle East Refining Capacity Ramps up for the Future

BY DAVE ERNSBERGER, GLOBAL EDITORIAL DIRECTOR FOR OIL, PLATTS

The global refining and storage industries are undergoing a period of profound transformation amid dramatic shifts in product supply and demand patterns. North American refiners are increasingly sourcing US and Canadian crude oil, while rising volumes of Middle Eastern crude are refined domestically, as a result of which overall crude trade is expected to decline over the next five years. Far Eastern crude imports, led by China, will continue to rise however amid spiraling energy demand, supporting the argument that Asia needs a new, internationally-traded pricing benchmark reflecting the regional balance of supply and demand. The changing supply-demand dynamics are also reflected in the global storage industry, which is responding by expanding capacities in existing and new locations.

Who knows what is going to happen as Middle Eastern refining capacity continues to grow. The Possibilities are considerable – The shuttering of uneconomic European refineries? A threat to Indian refining?; A boom in exports from the Middle East to Europe or China?; A sustained drop in the price of refined products across the region?

Everyone has a different view but we all agree on one point. One way or another, the trend will have a marked impact on the global refining industry. The reality is this: in the next year or two, Middle Eastern and Chinese refining will account for nearly two thirds of global expansion contributing to a worldwide surplus. According to some estimates, more than 20 new refineries or expansions to existing plants will be completed in the Middle East region by 2020, adding more than five million barrels a day to capacity. This is a crucial time for the downstream sector.

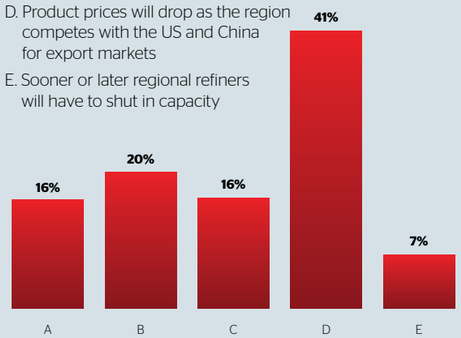
By conventional thinking, any refinery in the modern age verges on the competitive and economically viable. There was a time when many countries around the world used to talk about strategic refinery security, ensuring security of supply in times of national emergency. For the most part that seems to be a thing of the past. These days few newly commissioned refineries below the threshold of 15 million tonnes represent attractive financial propositions. But the Gulf region seems to be different. Heavy subsidies distort the regional market making conventional economics less important. And it looks like subsidies will be going nowhere any time soon.

With that in mind, refining development in the Middle East is following a strategic pattern. This combines economic decisions to meet booming regional demand and carve out an export industry with political goals aimed at greater regional industrialization and work force creation. Across the Gulf, demand is rising.

In Saudi Arabia and the UAE, imports of gasoline and other fuels continue unabated, creating ballooning costs. Saudi has major new refining capacity coming up with international partners: Yanbu, Jubail, Jazan – three projects that will add 1.2 million b/d refining capacity when fully operational. The UAE too has big expansion plans. There is sufficient belief that product prices will drop as this capacity comes on line. If this happens, in economic terms, the case for greater refining capacity in the Middle East will be less justifiable as a result.

**Refining capacity across the Middle East is expanding rapidly at a time when expansions are also under way globally – What does the supply build up mean for regional refiners?**

A. Domestic demand in the region will rise fast enough to absorb the additional products
B. Europe will absorb the products as more refineries are shutting down there
C. As usual, China will be there to absorb the additional capacity
D. Product prices will drop as the region competes with the US and China for export markets
E. Sooner or later regional refiners will have to shut in capacity




> “There was a time when many countries around the world used to talk about strategic refinery security, ensuring security of supply in times of national emergency. For the most part that seems to be a thing of the past.”

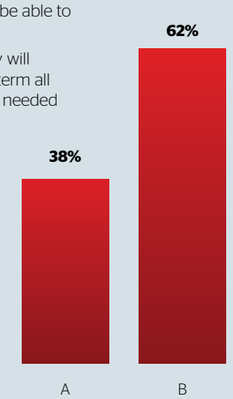
The UAE has its own goals, targeting refining capacity of up to 1.1 million b/d by the end of 2017, according to statements made by the UAE minister of energy last week. And these are less political and more economic in nature. Its booming demand is driven by the upheaval across the region. From Libya to Egypt, from Syria to Iran, people continue to flock into the Emirates as a safe haven from the insecurity in their home countries, pushing up refining needs in the process and spiraling the bill for its subsidized fuel prices.

Currently the UAE can barely produce 60 percent of its needs domestically. That is set to change soon. Plans include the doubling of capacity at Abu Dhabi’s Ruwais refinery from 415,000 b/d by the end of this year and the 200,000 b/d Fujairah refinery that is set for completion by the end of 2016. Again in purely economic terms, is Fujairah financially feasible? It is inextricably linked to the Habshan-Fujairah oil pipeline and clearly would not have been built in its current location if the opportunities from the export terminal did not exist.

Beyond that, there is a regional drive towards extending down the value chain and taking advantage of the exports market. From Saudi Arabia, a sizeable amount of diesel is now shaping up for export, most likely destined for Asia. That could play into the hands of places like Fujairah where localized spot markets are being created. There is also talk of extending the value chain through the development of further petrochemical plants and this is likely to be more directed towards export markets, especially towards Asia. At this stage, there are few concrete answers on how that trade will play out.

**The wider Gulf region will see major additions of oil storage capacity in locations such as Fujairah, Sohar, Ras Markaz and in time Duqm in Oman – Will this result in too much storage capacity within the region?**

A. Yes, they will never be able to fit all these tanks
B. No, build it and they will come – in the long-term all this capacity will be needed




And then there is Iran. Heavily isolated from the international market by economic embargoes imposed by the US and its allies, the Islamic Republic has faced problems in accessing sufficient quantities of refined products on the market and has looked to strengthening its own capacity as a result. Several refinery projects have been delayed but with restrictions on its crude oil trade, Tehran has already exploited the benefits of exporting refined products to neighbouring countries to earn valuable revenues.

The bottom line is this: the country will be self-sufficient in gasoline production by 2016 or 2017 when new capacity comes on stream, according to recent statements by Iranian officials. At that time, it will likely look to ramp up exports of all excess fuels in its bid to reclaim its former glory as a regional energy superpower. Much is dependent on whether it strikes a nuclear deal with world powers that would result in major sanctions relief and a boost to its domestic economy and industries.

This is just another variable that will affect the trajectory of the downstream sector in the future. One way or another, these are exciting times. Needless to say, the outlook remains as clear as mud. ■

# Crude Oil Pricing — Time for East of Suez Benchmark?

**BY DAVE ERNSBERGER, GLOBAL EDITORIAL DIRECTOR FOR OIL, PLATTS**

**I think the attention** that's been levied on price benchmarks has been very valuable and very helpful. I think, the conversation around how prices are formed in the wholesale oil markets, but also the wholesale gas markets, as we just heard, is a really interesting conversation and a great opportunity to talk about how those markets are fundamentally different from financial markets – how some of the characteristics that were there with libor or other benchmarks that had some serious problems demonstrably, aren't the same challenges that we faced when we looked at the physical commodity markets.

So the conversation around how cargos of crude oil trade, how do barges of refined products trade, how do pipelines of these products price in and out of the market has been a wonderful one, actually. Now, that's not to say there haven't been important questions asked. I think the public's willingness to really look at any issue for particularly long is always one question. The more you get into it, the more people's eyes glaze over and the more they stop paying attention. And that's because I think the questions around physical commodity benchmarks are complex and important but deserve also a fulsome conversation.

From Platts point of view, when you're looking to understand the value of a cargo of crude oil or a barge of a refined product or really any commodity, it's really important to be clear about the way the market's trading, who's providing the data and what the data actually is. And then I think if you can answer those first three questions, the value that's being published, whether it's a Platts benchmark or somebody else's benchmark, is a much more comprehensible thing to discuss.

> "One of the questions regarding Brent as a benchmark is its relevance and suitability for the east of Suez market, and so triggers the debate on the need to establish a price benchmark for the Gulf region."

So we've welcomed the debate over the last five years or so, and we did get a valuable one that we're keen to keep on leading, frankly.

One of the questions regarding Brent as a benchmark is its relevance and suitability for the east of Suez market, and so triggers the debate on the need to establish a price benchmark for the Gulf region. In November last year, we put forward our proposals for the industry's response around the actual changes we will in fact implement in our spot Middle East price discovery process, and they regard things like cargo sizes and delivery dates. We're now proposing to go firm with them in early part of next year. So, actually, they are the first critical changes – formalizing the sizes of the cargoes and changing the delivery – we assess are the first two concrete step towards.

I think, what is being asked for is a flat price discovery in the Middle East, but, of course, the trading community needs to do its part too and to provide flat prices for price discovery. ■

*Dave Ernsberger, Global Editorial Director for Oil, Platts*



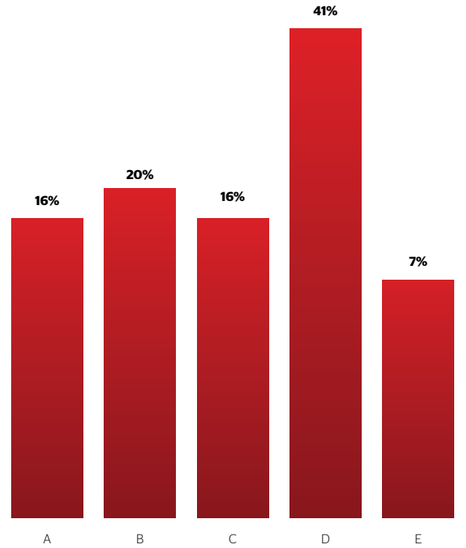
# Global Refining Map Redrawn: As New Product Supply & Demand Centers Emerge, What are the Threats & Opportunities for the Middle East's Downstream Sector?

*Source: An industry roundtable conducted in Fujairah under the Chatham House Rule*

**MODERATOR**
Who knows what is going to happen as Middle Eastern refining capacity continues to grow. But it is important to discuss what this really means as we think about the world in 2015 and 2016. The world is expected to add around about three million barrels a day of refining capacity between now and the end of 2016. Two million barrels of that is expected to come in 2015. In the next year or two, Middle Eastern and Chinese refining will account for nearly two thirds of the new expansions going on.

**Refining capacity across the Middle East is expanding rapidly at a time when expansions are also under way globally – What does the supply build up mean for regional refiners?**

A. Domestic demand in the region will rise fast enough to absorb the additional products
B. Europe will absorb the products as more refineries are shutting down there
C. As usual, China will be there to absorb the additional capacity
D. Product prices will drop as the region competes with the US and China for export markets
E. Sooner or later regional refiners will have to shut in capacity



**ENERGY INDUSTRY CONSULTANT 1**
I feel quite strongly that the decisions being made in this region are much more strategic in nature, with energy security high up on the agenda. So I think the question needs to be looked at in a much broader spectrum, including a focus on the petrochemical supply chain and other areas, including building up a local work force, capturing a larger part of the value chain and playing a bigger role in what oil producers can do. In this respect, it's much less about addressing the total price or real competition. Regarding Saudi, they wouldn't mind all that much if this expansion doesn't bring out the normal target margin that you see in Europe or in the US.

**INTERNATIONAL MEDIA EDITOR**
Going into this conversation the important thing is the background of the markets. You have Europe which was viewed as the mainstay demand source for a lot of new refineries coming up, which is now stuck between a flood of diesel from the west, losing its gasoline market and vast volumes from Russian upgrades. So it is difficult to see how Europe will be able to support new refineries in this part of the world. At the same time, there is the story in Asia, with a lot of closures. We have seen that happen in Australia and now we are seeing it in Japan as well.

Coupled with that, in China there are refineries being added? Of course, if you were sitting on top of a very large refinery in Southeast Asia, you might be a bit worried as China gets these new refineries. Probably the most difficult place to be in the world at the moment would be one of those Indian refineries, if not a private provider in North Asia. South Korea is where people are bound to be asking questions.

**AUDIENCE MEMBER 1**
A lot of oil production is coming through and local demand is going up because of subsidies. Today, for example Saudi is importing gasoline and fuel because they can't meet local demand. And this is going to affect the refining margins. But this does not affect the economics. For them, it's more strategic and not profit-driven. And as such, it will have an impact on the refining margins across the region.

**AUDIENCE MEMBER 2**
Any refinery coming up in future has to be competitive. It has to be economically viable. Economics may vary from region to region. There was a time when every country used to talk about strategic refinery energy security, but a small country, an African country for example, cannot talk about a small refinery being strategically important because it's not viable, unless they combine capacity and build a refinery of 15 to 20 million tonnes. Nowadays, any refinery that isn't to a level of 15 million tonnes is not economic. In this region because the funds are available more cheaply, maybe even small refineries can become bigger.

**ENERGY INDUSTRY CONSULTANT 2**
Let's also remember that the new refineries opening in Saudi Arabia are with international partners. Against the mainstream argument of continuous import demand from growth in Asia and so on, look at Indonesia, Ukraine, Malaysia, China—they're all planning self-sufficiency. There could be another scenario in which there won't be so much product export available for Asia.

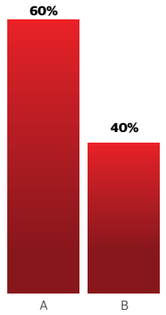
**MODERATOR**
To what extend would you say Saudi's international partners are driven by participating in the petrochemical side of the business rather than purely refining -- Isn't this where they really see there's value added rather than on the refining side?

**ENERGY INDUSTRY CONSULTANT 2**
In Saudi they need gasoline, but in fact they're building diesel machines just to make them economical. If you run the economics of diesel on the export price that you have in Asia, I think they're much more economical.

**MODERATOR**

**Survey question: Will refining capacity additions across the Middle East, the US and Asia lead to a period of product oversupply in the medium term?**

A - Yes
B - No




We heard in the last week or so from HE Suhail Al Mazrouei, the UAE's Minister of Energy, that the UAE would increase its refining capacity to 1.1 million b/d by the end of 2017. So it is almost online now. But it's also this Green Field Refinery in Fujairah, which, I think is being built. It is now estimated to be at 200,000 b/d but when it was first conceptualized it was 500,000 b/d.

What advice would you have about what the right sort of size is for a refinery in the Middle East these days? We heard earlier that a refinery has to be 15 million tonnes or bigger. Is that the case? Because the UAE refineries are quite a bit smaller than was originally considered.

**ENERGY INDUSTRY CONSULTANT 1**
I think you need to take a step back. I don't think any single operator at the moment has built a refinery from the same set of blueprints. The one in Fujairah is highly linked towards the pipeline and what's going on here. Otherwise, it probably would not have been built here. In terms of size, I think that's also very dependent on what you want to do. If you want to compete with U.S. refineries, that is a completely different picture. But maybe you don't want to export to the same type of customers.

**MODERATOR**
What sort of advice do you give companies building refineries around the kind of exposure that should be taken at the spot market? Because a number of companies look to move into trading after they build a refinery but they don't have that competency yet.

**ENERGY INDUSTRY CONSULTANT 1**
I don't think it's a one-size-fits-all. It has to do with the cost models that different companies have which make it attractive or not attractive to be in downstream. If you're an integrated oil company, upstream is where you make the money and downstream is where you have to be. And we've seen over the period of last 15 years or maybe even longer, in Europe, in the West in general, a steady move of the big guys moving away from retail to distribution to storage.




*"I feel quite strongly that the decisions being made in this region are much more strategic in nature, with energy security high up on the agenda."*

*Energy Industry Consultant 1*

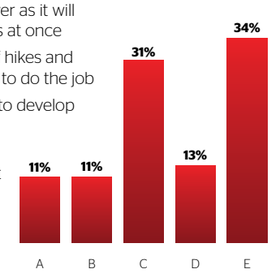
**AUDIENCE MEMBER 3**
I've been trying to get my head around some of the big refinery developments here, particularly the ones in Saudi Arabia. One thing I've noticed is that the motivation isn't 100 percent economic. A large part of it is political. Using the Jazan Development on the Red Sea Coast as an example, that is a sprawling integrated development, a huge refinery combined with what looks like a massive petrochemicals complex. It is also tied into integrating the oil supply from the east of the country with demand from the west side of a country and tied into increasing electricity supply for the west. And it is also tied to developing a much more diversified industrial - particularly heavy industry - base through the development of the new industrial city there.

This has to be driven in part to promote economic stability, any kind of stability in the kingdom, because they see regional instability encroaching, not just from ISIS in Syria and Iraq, but also they also have Yemen on their southern border, Bahrain is getting restive again and Saudi is economically vulnerable because it is highly dependent on oil. So it has to invest in broadening the kingdom's industrial base. And if there are going to be exports, they're more likely to be petrochemicals than oil products.

**AUDIENCE MEMBER 4**
In this region, you look at us as producers rather than consumers. But when you take the Gulf countries, including the bigger ones like Saudi Arabia and UAE, for example, and you look at the statistics on the consumer side, you'll find that the figures are much, much higher than in Europe or the U.S. And when you say that these projects are more strategic than economic, that's right. When you look at the expansion of Gulf countries, combined with the influx of people coming because of all the political problems happening in the Arab world, the governments aren't coping with demand. Regarding existing figures, our capacity can barely fill 50 or 60 percent of our requirement. So whatever is produced will be consumed locally.

**GCC countries are facing heightened pressure to use their energy resources more efficiently in order to supply their growing populations, free up hydrocarbon resources for export, and address concerns about climate change and pollution – What should be GCC governments' priority?**

A. Push renewable into the mainstream
B. Ramp up nuclear power as it will resolve all these issues at once
C. Across-the-board tariff hikes and subsidy cuts will have to do the job
D. Invest heavily in R&D to develop innovative energy-efficient technologies
E. Implement a coherent joint energy strategy within countries and for the GCC region



> *"Whenever you have a product surplus, what do you do with it? That's when spot markets arise."*
> *International Media Editor*

> *"Against the mainstream argument of continuous import demand from growth in Asia and so on, look at Indonesia, Ukraine, Malaysia, China—they're all planning self-sufficiency."*
> *Energy Industry Consultant 2*

**MODERATOR**
How important is it for Iran similarly to get some refinery projects up and running. I think the last time I looked at a list there were at least six or seven imminent projects that Iran wanted to pursue and then maybe another half a dozen that were further down the road. Where is Iran in bringing some of its newer refineries to market? And how important is that to addressing Iran's own energy security needs in the next few years?

**IRANIAN OFFICIAL**
In the past, whatever the political situation going on, we required a lot of finance in order to go ahead with all these plans which are, at the present time, pending. And I believe that this issue is hopefully going to be resolved in the near future.

**AUDIENCE MEMBER 5**
Iran is growing and the demand for fuel is growing. And because of the sanctions, their limited funding is limiting that growth. Right now, all the pictures look more positive. And I think if sanctions are eased and with the inflow of funds, a lot of refineries you'll see catering for the local demand. If that works out, then we'll see a transformation with respect to growth export and the local refining capacities.

**MODERATOR**
Asian petrochemical makers switching to cheap US LPG feedstock is only the beginning of a new trend that will drive down product prices from the Middle East – do you agree.

**INTERNATIONAL MEDIA EDITOR**
We have seen this flow increase. But as a direct result, you're also seeing LPG freight rates at multi-year or all-time highs. So, I think, the picture has been dampened by the freight costs. That's not to say it won't carry on. Regarding the Middle East, we did see two cargoes of gas oil from the U.S. come to Saudi last year. And we saw gasoline going from the U.S. to Saudi last year, which definitely are emblematic stories. But we're not going to suddenly see a sudden rush of U.S. products.

**MODERATOR**
How prominent does Asia feature in your thinking around the advice you offer entities looking to get into the refining business?

**ENERGY INDUSTRY CONSULTANT 1**
The majority of the refineries being built up in this region are for use locally. And all the petrochemical stuff that comes with it brings an opportunity to build a local industry with the workforce and all these things. And you can see some fun discussions happening, such as, "Gee, what do we do with all this sulfur?" Can the market ever sustain the output if we start building these petrochemical complexes? But I think from that side of the picture, yes, these are definitely elements of the equation regarding Asia. From the refinery side, I don't think it's that much of it.

**MODERATOR**
The number that jumps up in my mind is China now has 12 million barrels a day of refining capacity - which is the same as United States, by the way.

**AUDIENCE MEMBER 5**
Saudi will be looking outward for exports to Asia. I know Saudi was at a deficit of 120,000 in diesel. With 600,000 to 700,000 barrels of additional diesel capacity now, it will be in surplus of 300,000 to 400,000 barrels. So that would be a major surplus from Saudi. That will be the next challenge, how to place diesel.

**INTERNATIONAL MEDIA EDITOR**
Whenever you have a product surplus, what do you do with it? That's when spot markets arise. That's when you need a market to clear the balance between supply and demand. And that's why Fujairah definitely can play more of a role.

**MODERATOR**
Does it make sense to build new oil and product storage close to or in consumption centers rather than production centers?

**AUDIENCE MEMBER 6**
You know, if we build near the consumption sites then you may have do multiple handling because you don't know where the demand is. But if you build near the production centre, there is no issue about the demand. It's a more economical decision.

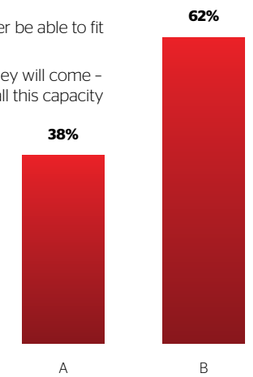
> *"In the past, whatever the political situation going on, we required a lot of finance in order to go ahead with all these plans which are, at the present time, pending."*
> *Iranian Official*

**MODERATOR**
Investments are happening on both sides. I think the consumption centers of which the Middle East is absolutely a critical voice increasingly turns the security of supply. If your refined products come from 400, 800 or 1000, 2000 miles away, how do you handle some sort of disruption to shipping?

**INTERNATIONAL MEDIA EDITOR**
You're going back to strategic versus economic question. On a very basic economic level, if you have stored your product in a consumption centre, you've already paid for shipping one way; your options revolve around that market. If you store it close to production centers, you haven't taken it anywhere; you haven't made that shipping decision. And when then the options come up, you can take it to any location. ■

**The wider Gulf region will see major additions of oil storage capacity in locations such as Fujairah, Sohar, Ras Markaz and in time Duqm in Oman – Will this result in too much storage capacity within the region?**

A. Yes, they will never be able to fit all these tanks
B. No, build it and they will come – in the long-term all this capacity will be needed



# Investing in the Energy Value Chain: A New Era for Commodities Trading Firms

*Trading firms are evolving more into vertically-integrated energy companies*

BY DYALA SABBAGH, PARTNER, GULF INTELLIGENCE

The world's leading Commodity trading houses are stepping up their investments into the energy supply chain, buying upstream, midstream and downstream physical assets such as oil fields, storage tanks, refineries, and even retail marketing businesses and power plants in a bid to diversify margins. Driven by rising competition, new transparency regulations and adverse conditions, trading firms are evolving from the light-on-asset firms they used to be into vertically-integrated energy companies with large ownership interests across – and greater control of – the energy supply chain.

Always known for operating in a cut-throat, low-margin environment, commodities trading firms have seen pressure on arbitrage margins accelerate in recent years as their superiority of market knowledge has been eroded by the dissemination of market-relevant information and data, while the number of new players entering the business has increased rapidly over the past decade; in Geneva alone, the number of commodity trading firms doubled to about 400 between 2006 and 2011. This in turn has pushed up the need to deploy more capital to generate the same or even smaller returns – a proposition that industry executives say is neither attractive nor sustainable. In response, trading firms have turned to a trading-plus-asset strategy, investing up and down the value chain.

"The necessity to integrate into the supply chain has meant that companies such as ours have entered into the storage business, the distribution business and—more recently—into the refining business," said Vitol Group's Executive Director Chris Bake. "This isn't new. We owned refineries in 1990 and we sold them in 2004 and 2006. We bought some back over the last few years."

## GROWING LIST OF DEALS

The list of deals initiated by trading firms in recent years is long and growing. Earlier this year, Vitol bought a power plant in northern England from oil refiner Phillips 66 and completed the acquisition of an oil refinery and petrol station network in Australia from Shell for $2.6 billion. The transaction followed Vitol's buyout of Shell's downstream assets in Africa in a deal first announced in February 2011. Competing trader Trafigura meanwhile spent about $800 million in 2013 on two petrol station and oil import terminal companies in Australia.

Similarly, trading firms Mercuria and Gunvor have adjusted their strategies and invested into different types of assets along the energy value chain. Mercuria in 2010 bought a coal concession in Indonesia and, a year later, entered into a financing and partnership agreement with US coal producer Bowie Resources, while also acquiring a 5.7 percent stake in Optimum Coal Holdings of South Africa. Gunvor in 2012 acquired two refineries, one in Antwerp, Belgium, and one in Ingolstadt, Germany from insolvent Swiss refiner Petroplus.

Trading companies are pursuing their strategies at a time when a rising number of international oil companies (IOCs) are under pressure to sell downstream assets to place a stronger focus on upstream activities in order to maximize returns, thus creating significant opportunities for independent commodities trading firms to gain market share and increase their footprint. Apart from Shell's asset sales in Australia and Africa, oil majors such as BP, Statoil and Total have also divested assets, especially downstream, to shore up finances.

"The IOCs have been incentivized for a considerable period of time to spend their capital on exploration development. The capital pool available to them and the returns on capital have been historically higher in that area. They have the resources, the risk appetite and the capacity to take on these ever-more complicated oil and gas development projects, and the equity markets have made the capital available to them to do that – but haven't given them any credit for downstream distribution and refining at all," said Bake. "So the exit from that market has been a long steady road."

> "Trading companies' more active posture in the up-, mid- and downstream sectors comes at a time when investment banks are scaling back their activities to comply with new and upcoming regulation in the US and UK."

## EXTRACTING VALUE

For trading houses buying up assets such as oil fields, fuel distribution networks, refineries and power plants in many ways is a logical extension to their existing business model. It ensures ongoing demand for oil, gas and other commodities that sit in their storage facilities to serve their refineries, distribution networks and power plants, while investments in upstream assets guarantee product volumes for trading. The thinking behind this strategy is that by integrating market-related supply with efficient distribution, value can be extracted out of that proposition.

In addition, trading firms are seeking to extract greater value from the assets they acquire by driving greater efficiencies and cost benefits from the integration into their unique portfolios. There is another benefit that's arising from the acquisition of physical assets along the value chain. The new ownership positions are providing trading firms with unique insights on factors behind market price formation – information that in turn can be used to their advantage.

Opportunities for trading companies to pick up assets along the energy value chain are also arising from other developments. Trading companies' more active posture in the up-, mid- and downstream sectors comes at a time when investment banks are scaling back their activities to comply with new and upcoming regulation in the US and UK. As a result, banks, which became heavily involved in physical commodities trading over the past decade, are selling more and more of their physical assets.

"Several key pieces of upcoming regulation are likely to have a significant effect on the banks' ability to trade on their own account, and to hold hard assets including warehouses, storage tanks etc and commodity trading houses are likely to benefit as a result," legal firm Clyde & Co. wrote in a 2013 report titled 'Trends in the Oil & Gas Trading Sector'.

## COMPETITION

As trading firms evolve more into vertically-integrated energy companies, they are increasingly finding themselves locked into competition with emerging national oil companies (NOCs), which are seeking to secure new resources by buying up productive overseas assets on the one hand, and to gain access to international knowhow and technology on the other.

The transformation of NOCs into heavyweights with global reach has had several important implications for trading firms. Not only do NOCs increasingly acquire assets abroad, they also continue to control their own, vast domestic resources with little or no access to international players, while selling their output and products directly to their customers. As a result, NOCs today control a significant size of the tradable oil market, which in turn is limiting the business opportunities for trading firms. The acquisition of productive assets is one way for trading houses to secure a greater market share.

As trading firms' business models are changing so is their funding requirements. Companies' expansion strategy has meant that firms have had to raise funds beyond their existing balance sheets and secure longer-term capital and financing – at a time when risk appetite of traditional trade finance banks has crumbled in the face of new regulations and higher capital requirements. To this end, some trading companies have opted to tap international debt markets or form strategic partnerships, while others have brought in minority stakeholders or launched initial public offerings – although the latter option is unlikely to become a broader trend.

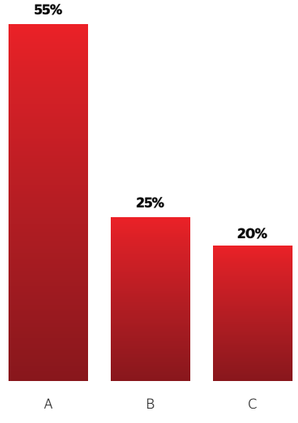
"The growing financial needs of private trading companies are pushing up against the structural limitations of employee ownership and forcing new funding approaches," according to financial services firm Deloitte. "Whilst a handful of international trading organizations are public companies, many observers are skeptical that this could develop into a sector-wide trend. After all, the opportunistic risk management style and earnings volatility intrinsic to commodities trading could fall foul of external shareholders' expectations of orderly growth and controlled debt management."

## CHALLENGES

As trading companies are pursuing their new strategies, they are also likely to face a number of other challenges. Financing and transaction costs will increase as new regulations such as Basel III or the Dodd-Frank Act come into force. Also, due to firms' greater market concentration resulting from their expansions, the regulatory burden and compliance obligations on them may increase, with the result that regulatory approvals and clearance from competition authorities will be required for future merger and acquisition transactions.

**International commodity trading firms have been on an aggressive push to acquire assets and expand into other parts of the energy value chain, while IOCs have been shedding downstream assets to focus on upstream – Will trading firms successfully extract more value from the downstream assets than IOCs could?**

A. Yes
B. No
C. Too early to say




At the same time, the ownership of physical assets in key energy-producing and/or transit countries such as Libya, Iraq, Ukraine and Nigeria makes trading houses more vulnerable to risk factors such as resource nationalism, sanctions or increased instability. Meanwhile, different kinds of risks are arising for trading firms investing in North American shale assets. Located in politically stable, well-regulated environments, the challenge here will be the technical complexity and geology of the developments.

But the challenges don't end there. With oil prices at two-year lows and other commodities prices also receding amid sluggish global economic conditions and slowing growth in China, trading firms will be watching closely to determine their next moves. While trading firms tend to be price indifferent because they're not speculating in any direction, lower commodities prices potentially impair the value of their assets – and their business. However, at the same time the lower values may create new deal opportunities.

The list of challenges for trading firms is undeniably long. If an industry survey conducted at the Gulf Intelligence Energy Markets Forum in September is anything to go by, trading companies are moving into the right direction however[1]. When asked whether trading firms will successfully extract more value from the downstream assets they have acquired from IOCs, more than half of all respondents comprising senior energy industry officials and executives agreed, while 25 percent didn't believe they would and the remaining 20 percent said it was too early to say.

The new era for trading firms has only just begun. ■

1. See Graph 1 – Survey conducted among 160 senior energy officials and executives at Gulf Intelligence Energy markets Forum in Fujairah on Sep. 23, 2014

***Dyala Sabbagh, Partner, Gulf Intelligence***

# Commodities Trading Firms Investing in the Value Chain – New Integrated Energy Companies in the Making?

*Source: An industry roundtable conducted in Fujairah under the Chatham House Rule*

**MODERATOR**
One overarching question hangs over the move by trading firms to acquire energy assets and move up and down the energy value chain – "Such integration may improve trading margins but only by getting the commodities firms into lots of low margin capital intensive businesses like shipping and mining. It may work well when commodity prices are stably rising but it leaves them woefully exposed to the next recession."

So, is this the reality?

**ENERGY TRADING FIRM**
There are two sides to consider – firstly, there are assets available, and secondly, does anybody want them? There are a lot of refineries up for grabs that nobody wants. There are some mines up for grabs that nobody wants, and so the trick here is, why would a trading company want these assets in the first place and which ones?

So broadly speaking, the margins are always under pressure in trading as information becomes more and more readily available, both through electronic forms and through a proliferation of trading firms around the world. The arbitrage margin is thinner and thinner and harder to come by. Essentially you have to deploy more and more capital just to make 10 cents. That's not sustainable and that's not very attractive. So, companies like ours have gone from being barge traders in Rotterdam and Antwerp, to a global network of physical trading, followed by being able to handle price risk management – so what's next?

One of the reasons assets are interesting is because it gives you a more permanent position in the market for storage. This allows a trader some options as it means he doesn't have to take something from A to B or from A to B and to C. He can actually stop and hold because he has a view on the future or because he has a view on seasonality or view on breaking bulk or making bulk.

But as soon as you start doing that everybody starts doing that and then there's no margin again.

The view on acquiring distribution networks, like we were fortunate enough to get into in Australia and 16 countries in Africa, is that they are there to be served now. You're always going to have to serve that system and although there may not be that much margin in serving that system, but because you always have vessels going to those countries, if something happens nearby, you can always serve those nearby countries whereas, before you couldn't.

So it's how do you build on this physical global network with certain assets that add to that network, more than the assets themselves have to make money in their own right. We hold everything at an arm's length from the trading business.

The other thing that we've seen change in the last 10 years is the cost of money. As an example, we had an asset that we were trying to divest 8 or 9 years ago and many of the buyers of those assets wanted to make 20 to 25 percent return on equity. On assets that are utility type asset where you should be looking at 10 to 12percent, private equity firms, hedge funds and speculators all wanted to make 20 or 25 percent return on their money as if it was FMCG, media, telecoms or oil. That's insane. This is a 20 year stream of cash flows that's pretty much guaranteed and you still want 25percent. The world is changed and money is now a lot cheaper.

> "If you have a platform that works, although every product is different and every market is different, if your trading business is predicated on access to low cost capital and good management of information about markets and good touch points with customers and suppliers, then you can replicate that in new markets across products and without adding too much incremental cost."
>
> *Energy Trading Firm*



**ANALYST**
I think there will always be vulnerabilities for trading companies who don't control energy resources, with NOCs now holding about 85 percent of total resources. It's more and more difficult even for the IOCs to get in, so their trading companies are being squeezed. We've seen a slight improvement in refining margins, in Europe particularly, because the price of oil has fallen. But in the past year or two we haven't really seen that much volatility, which are your bread and butter if you're a trading company.

**INDEPENDENT ARAB ENERGY COMPANY**
The first thought is about one of the major challenges that oil and gas companies, upstream companies, are facing worldwide today which is the increase in the cost of integration and development, both. And that is a major concern to the majors and to even the smaller midsize companies, worldwide. Total is divesting a number of its assets worldwide and the main driver is the cost. The cost is going to drive a lot of E&P companies to either streamline their activities or basically to cut down their activities in different places.

Integrated European Energy & Utility Company:
We are a very big utility company in Europe so our expectations on returns in Great Britain for example are 9 to 10percent. So, in parts of our business, across the value train, we have, say a slightly different edge because our expectations are not 20 percent or 80 percent. And the thing that has driven us into greater integration and the international space is simply regulation. You know, our core money making machine sits in a much regulated environment in Europe. And also an environment that actually we don't get to have any form of consistency with. The European Union is forever changing the rules by which we're allowed to conduct our business.

**MODERATOR**
Here we have one company diversifying to get away from regulation, yet the trading companies are moving under greater regulation by diversifying vertically, how will that play out?

**ENERGY TRADING FIRM**
The regulated question is an interesting one because we bought a power plant last year in the UK, which puts us into a traded market, but a heavily regulated market.

But equally it depends on what you define as regulation, you're talking about price regulation, labor regulation's not something that we've ever had to worry about but now we have 2700 employees in Africa, over 2000 employees in Australia. It's a new world for us. And then obviously the more assets you own, the more you have to look at things like health safety and environment. So we have to – and have – build up our own teams around understanding these skill sets but we also very much need to make sure that these entities that we buy have world class management from that space. You know, we don't stick traders into these assets and say you are now an operator. We stick asset managers into the assets, in the countries that understand the regulations to make sure that the assets are run in accordance with the way they should be run.

It's a different model!

**MODERATOR**
Are you running the risk of morphing into a new business, that that would change the way you were defined before, and then would that change your ability to access capital that's similar to the oil companies and the returns that they require?

> "We've seen a slight improvement in refining margins, in Europe particularly, because the price of oil has fallen. But in the past year or two we haven't really seen that much volatility, which are your bread and butter if you're a trading company."
>
> *Analyst*

**ENERGY TRADING FIRM**
I think fundamentally we're still a trading company. And we like that nimbleness; we like being able to move quickly and respond to market changes and respond to customers and suppliers. But it's an ongoing evolution. We don't have a master plan where we're going to end up looking like Shell in 10 years. It's an evolution that's occurred in response to the market and a response to opportunities; and it has its challenges but it also has its benefits. It has a different cash flow profile for us than it used to, less volatility around cash flow, more opportunity created from the assets themselves.

But I don't think we have the answer yet around what does it look like at the end. It's just going to keep evolving. In terms of accessing capital markets, all trading firms are different. Glencore for example is very asset intensive, and so it needs to borrow lots and lots of money to keep funding mines. We are, let's say, picking certain parts of the value chain in oil that suit the platform we're trying to build from. So we did not have to go to the capital markets, meaning the public markets, to raise money, we still seem to be operating okay on the back of our equity and off the back of our borrowing base. And Trafigura and Gunvor and everybody else, they're all different in their own special ways and all of us are different from the majors.

**MODERATOR**
Let me just open it out here to the audience. Yes sir?

**AUDIENCE MEMBER**
The upstream business is very capital intensive – if you look around at the purely upstream companies that would've been in business for the last 10, 15 years, some of them have not done a very good job for returning share holder value in the upstream sector. If there are more well-funded players coming into the market place from the trading community, do you think that the trading community is going to be doing, or absolutely must do, a better job than the traditional players?

**ENERGY TRADING FIRM**
I think it's very situation-dependent. I think the entry of a trading company into, per say, into pure Exploration is not. I think the one thing that the majors have is the

depth of capital structure and the appetite for risk that most trading companies – I don't think there's a lot of people in the trading field that feels very comfortable putting up half a million dollar hole in the ground with a 1 in 10 success. It's not something that's in our DNA, it's not. You know, we like to mitigate risk and that's not good risk mitigation. So you need to have a very different entity. Also, if you're going to put that kind of resource in the ground, you need to have 100s of people who're focused on making sure you put in the right place at the right time and right setup.

> "The cost is going to drive a lot of E&P companies to either streamline their activities or basically to cut down their activities in different places."
>
> *Independent Arab Energy Company*

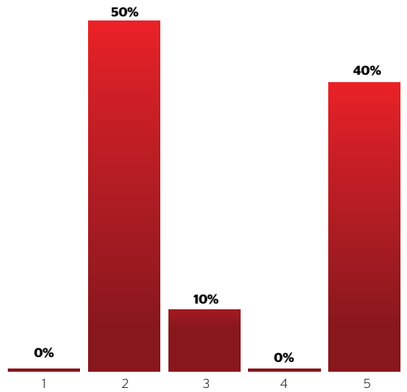
**MODERATOR**
But yet Trading firms are buying up gasoline retail stations, that puts you in a very unfamiliar low margin business of selling groceries – How does that fit the trading firm culture and model?

**ENERGY TRADING FIRM**
The thought is that by integrating market related supply with efficient distribution, that you can extract some value out of that proposition. For example, Shell had tens of people in their data services center servicing a fairly unique network in Africa, and we're operating that same resource with 8 to 10 percent of the personnel that Shell was. Just because of looking at the proposition differently, where the cash is collected or the cash is maintained and what kind of reporting structure we require versus, so we're developing a lot more from the asset rather than trying to manage everything, you know, through London and Rotterdam. Time will tell if it's right or wrong but that's just the case in point where there are efficiencies in the system that can be taken out without compromising health or safety.

If you have a platform that works, although every product is different and every market is different, if your trading business is predicated on access to low cost capital and good management of information about markets and good touch points with customers and suppliers, then you can replicate that in new markets across products and without adding too much incremental cost. So it's not a huge surprise if smaller niche companies who are being squeezed in one area want to spread their cost over other areas. It's not a slam dunk, because gasoline is very different than fuel oil. But that the underline platform of money and information is similar and risk management.

**As trading firms grow into different parts of the value chain, including upstream and retail, which of the following is the most significant issue they must address?**

1 – HSE, as operators of assets
2 – Managing tradeoff between asset profitability vs. trading margins
3 – Managing long-term vs. short-term priorities
4 – Restructuring the balance sheet
5 – Investing in IT to manage integration and gain competitive edge




**AUDIENCE MEMBER**
I think there's another factor, we're seeing the major suppliers, all the national oil companies, actually start to become traders themselves. And that is replacing what was our meat and potatoes, which was what we did. So that's actually pushed us out to survive, to look for something else. So actually taking an asset that we know can then have a flow, it might not make a lot of money, but it gives us a flow. Without that flow we can't trade. So maybe the asset that gives us this flow means that we have a terminal that is giving us that flexibility to supply the asset which then we can supply somewhere else.

**AUDIENCE MEMBER**
It is interesting to see how trading companies run assets like refineries, because most operators look to run it more or less on full utilization, with not much thought on what the market is doing. But the traders,

on the other hand, react very quickly. They see a margin is going down, we'll reduce rates; they see changes, they immediately react to that. So the way the trading companies run these assets is much more flexible, much more commercially driven. The trader's basically run these assets rather than engineers. ■

**Increasing competitive pressure and customer sophistication is likely to lead to further erosion of the profitability of core trading operations; leaving trading firms no choice but to step up integration.**

A – Agree
B – Disagree



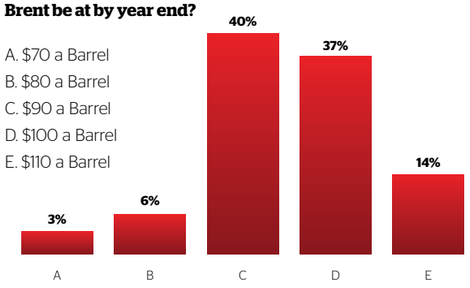

**The expansion of trading houses is a regulatory concern because it creates giants that are too big to fail.**

A – Agree
B – Disagree

# ENERGY MARKETS FORUM SURVEY RESULTS

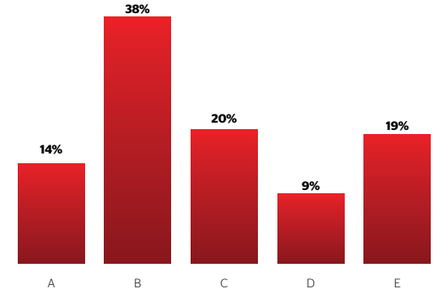
Brent crude prices have been trading at two-year lows below $100 a barrel since Sept. 8 — **What levels will Brent be at by year end?**

A. $70 a Barrel
B. $80 a Barrel
C. $90 a Barrel
D. $100 a Barrel
E. $110 a Barrel



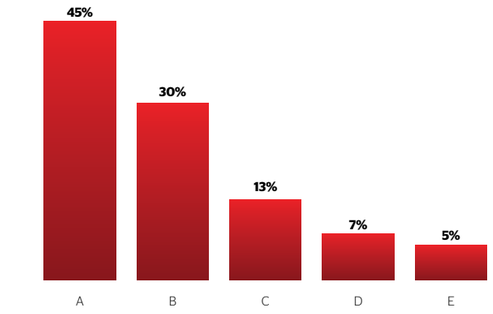

**WTI crude price levels are nearing the $85-a-barrel, below which many US shale oil projects won't be economically feasible — What would you expect to be the most likely reaction if WTI fell below $85 a Barrel for a sustained period?**

A. US shale oil production capacity would start to decline as expansion plans are put on hold
B. OPEC would curtail production levels at November meeting and so push prices back to $100
C. Shale production plans outside the US -Europe/ China/ Argentina/ --would be curtailed
D. Russia would step back from standoff with West to ease sanctions as oil revenue declines
E. All of the above



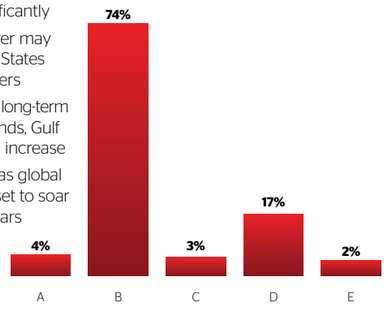

Which of the following will have the biggest impact on the global economy in 2015?

A. Geopolitical tensions
B. Slowing growth in China
C. The US Fed raising interest rates
D. Lower energy prices
E. I wish I knew!



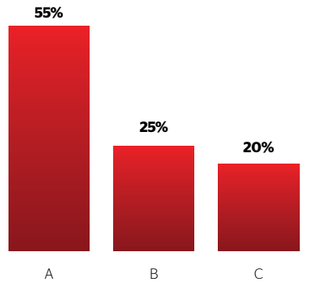

**Oil and gas production is diversifying away from the Middle East, with North America, Latin America, Australia and West and—soon—East Africa all adding capacity — Will this trend erode the clout of traditional energy-rich nations by 2020, including the Gulf states?**

A. Yes, Gulf States will see their influence on global energy markets wane significantly
B. The balance of power may be shifting, but Gulf States will remain key players
C. Not a chance! Given long-term energy demand trends, Gulf States' influence will increase
D. Everybody will win as global energy demand is set to soar over the next 20 years
E. It's too early to say



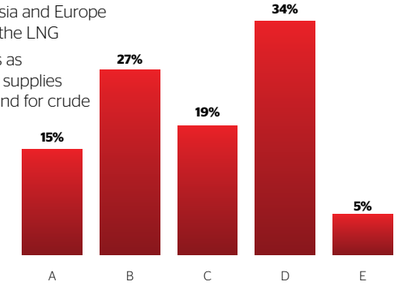

International commodity tradingfirms have been on an aggressive push to acquire assets and expand into other parts of the energy value chain, while IOCs have been shedding Downstream assets to focus on Upstream — **Will trading firms successfully extract more value from the Downstream assets than the IOCs could?**

A. Yes
B. No
C. Too early to say



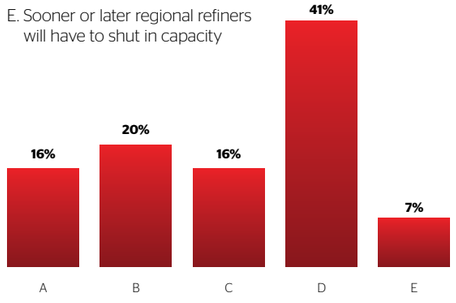

**The US just approved two LNG export projects, at a time when Australia, Canada, Malaysia and Papua New Guinea are also ramping up output, and energy demand in Asia is slowing — Who will lose out most? Gulf states?**

A.High-cost LNG producers such as Australia and Canada
B. The hopefuls in East Africa because they'll be late to the market
C. All gas producers will suffer
D. No one! There'll be sufficient demand in Asia and Europe to absorb all the LNG
E. Oil Producers as more energy supplies erodes demand for crude



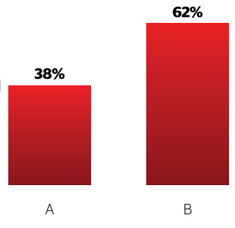

Refining capacity across the Middle East is expanding rapidly at a time when expansions are also under way globally — **What does the supply build up mean for regional refiners?**

A. Domestic demand in the region will rise fast enough to absorb the additional products
B. Europe will absorb the products as more refineries are shutting down there
C. As usual, China will be there to absorb the additional capacity
D. Product prices will drop as the region competes with the US and China for export markets
E. Sooner or later regional refiners will have to shut in capacity



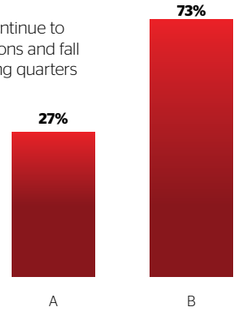

**The wider Gulf region will see major additions of oil storage capacity in locations such as Fujairah, Soharand RasMarkazand in time Duqmin Oman — Will this result in too much storage capacity within the region?**

A. Yes, they will never be able to fill all these tanks
B. No, Build it and they will come -in the long-term all this capacity will be needed



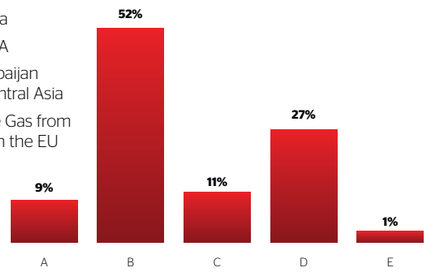
China's economic engine sputtered in August as industrial production growth slowed to its lowest level since the 2008 global financial crisis -most analysts have downgraded their expectations and forecast that China will probably miss its 2014 GDP target growth of 7.5% — **what is your outlook for China?**

A. China to engage in massive stimulus programmeto reverse decline
B. China GDP growth to continue to underperform expectations and fall through 7% in the coming quarters



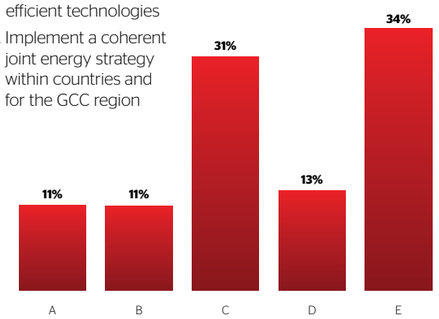

In light of the Ukraine crisis, the EU is seeking to diversify its gas sources away from Russia to enhance energy security — **who will be the EU's biggest supplier of natural gas in 2020?**

A. US
B. Russia
C. MENA
D. Azerbaijan & Central Asia
E. Shale Gas from within the EU



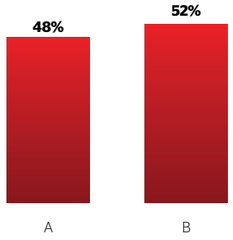

GCC countries are facing heightened pressure to use their energy resources more efficiently in order to supply their growing populations, free up hydrocarbon resources for export, and address concerns about climate change and pollution — **What should be GCC governments' priority?**

A. Push renewables into the mainstream
B. Ramp up nuclear power as it will resolve all these issues at once
C. Across-the-board tariff hikes and subsidy cuts will have to do the job
D. Invest heavily in R&D to develop innovative energy-efficient technologies
E. Implement a coherent joint energy strategy within countries and for the GCC region




Energy Security has emerged as one of the top agenda items for most political leaders across the world - producers & consumers — **Which is a bigger threat to the balance of global oil markets over the next year or two?**

A. Supply Security
B. Demand Security




BP led a group of companies last December signing a $45 billion deal to pipe natural gas from Azerbaijan's Shah Denizfield to Italy, offering the European Union an alternative to Russian supplies. **Does this represent a viable alternative to Russia?**

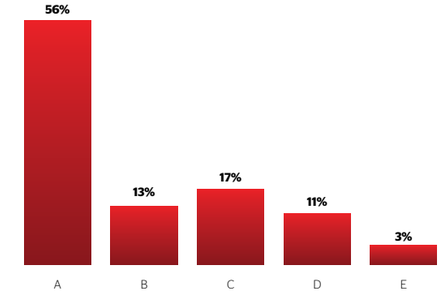
A. Yes
B. No


Japan and South Korea represent 50% of global LNG demand --importers across Asia are increasingly vocal against the — Asian premium — charged in gas prices for security of supply. **Would an Asia-wide gas buyers club - including India, Japan, China, and South Korea, the world's "big four" importers, be a successful strategy to pursue to counter a gas producers cartel?**

A. Yes
B. No


In light of Europe's energy security concerns — **what will be the most prevalent source of power generation in the EU by 2025?**

A. Gas
B. Coal
C. Nuclear
D. Renewables
E. Liquids

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