



ENERGY CONSULTING & PROJECT MANAGEMENT

استشارة وإدارة مشاريع الطاقة



British Falcon – A crude oil carrier. Photo courtesy of BP.

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Opportunities for world-class petroleum contracts in the Middle East

By Robin Mills

The Second World War was drawing near, Sigmund Freud was still alive, space travel and nuclear power were just science fiction, and oil sold for US\$1 per barrel, when Sheikh Shakhbut of Abu Dhabi signed a concession agreement

with Petroleum Development Trucial Coast.

That concession, signed in 1939 - now Abu Dhabi Company for Onshore Oil Operations (Adco) - will expire shortly. The world can change unimaginably during the long lives of oil contracts. Now the balance of power in the never-ending tussle between oil-rich countries and petroleum companies may be shifting again - and Middle East governments need to take heed.

In the late 1990s, prices briefly dipped to \$10 per barrel, and major producers from Russia and Venezuela to Iran, Saudi Arabia and Kuwait contemplated the once-unthinkable step of opening up their fields to foreign investment.

Then followed a lean decade of high oil prices and scarce opportunities. Leaders such as Hugo Chávez, Vladimir Putin, the Alaskan governor Sarah Palin, the UK finance minister George Osborne and Australia's Kevin Rudd sought to raise taxes on the oil industry.

Oil prices are still high. But an important set of new agreements are on the way in the Middle East. Iraq has signed a number of mega-deals to boost production to 6 million barrels per day or more by the decade's end, and is launching further exploration bids. Abu Dhabi's Adco concession, working to increase output to 1.8 million barrels per day, is set to expire next year, with the two major offshore

concessions up in 2018. Post-revolutionary Libya will also seek new investment.

The region offers tough terms. Abu Dhabi famously pays its concession partners just \$1 per barrel produced, and the Iraq auctions also yielded bids about \$1 to \$2 per barrel - an effective tax rate of 98 to 99 per cent. In Libya, the government takes more than 90 per cent of the profits. In well-run but high-cost Norway, by contrast, the tax rate is 78 per cent.

The aim of a good oil contract, from the government's point of view, should not be to squeeze the last fils from the private oil company: it should be to maximise the value to the country.

Excessively heavy or inflexible taxation destroys value. Badly-designed fiscal systems encourage companies to inflate their costs, and discourage them from exploring or developing more costly resources.

Oil companies also generate value for the host country in less tangible ways - employing and training local citizens, introducing advanced technologies, developing indigenous supply chains and supporting businesses.

This is seen clearly in the United States. Tax breaks and research and development support led to the breakthroughs in shale gas which have made North America self-sufficient in gas, and are now boosting oil production.

Oil companies today have other options. If they do not find attractive contracts in the Middle East, they will go to North American and Chinese shale oil and gas, Brazilian deep-water, and new exploration frontiers in East Africa and the eastern Mediterranean.

What is the solution? The region's oil producers need a flexible, profit-based system of taxation, allowing the oil companies to operate at their best, without handing them easy money. Instead of simply accepting the lowest bid, they need to value a company's technical capacity, environmental record and contribution to developing citizens and the wider economy.

And they need to attract a diverse ecosystem - from supermajors and Asian and Russian national oil giants, to smaller companies with the nimbleness to exploit unconventional resources, new exploration concepts and marginal or mature fields.

Such systems do exist - Australia and Norway are good examples. Seventy-five years on the region has the ideal opportunity to devise world-class petroleum contracts for the 21st century.

A version of this article appeared in The National newspaper on April 1st, 2013

Proposed expansion of energy agency looks a seismic shift

By Robin Mills

When the International Energy Agency was launched in 1974, the French foreign minister at the time, Michel Jobert, called it "an instrument of war". The IEA was the industrialised countries' counter to Opec and the first oil shock.

Now, as the Financial Times reported on Thursday, the IEA is seeking a closer association with the main emerging economies: the Brics (Brazil, Russia, India, China and the rather misplaced South Africa), plus Indonesia and Mexico. There is still a long way to go in negotiating their entry. But this move marks the biggest change in the agency's direction since its foundation.

The IEA never responded to Opec's cutbacks in production and eventual imposition of quotas by attempting to form a buyer's cartel. Instead, it introduced coordinated emergency measures, whereby each member holds stocks equal to at least 90 days of imports and agrees to share supplies if needed. As recently as last year, the IEA discussed a stock release to cool off prices, which had been rising sharply in response to the sanctions on Iran.

The IEA also harmonised basic energy statistics. As a US diplomat involved in 1974 recalls, "It's amazing. Western industrialised countries ... simply did not ... know what segments of the energy

input was going into what".

Understanding this was crucial in formulating a response to that decade's oil shocks.

Since then, the IEA has broadened its scope far beyond oil, defining its mission as ensuring reliable, affordable and clean energy for its members and the world. I have long advocated that the IEA should seek some kind of membership or at least partnership for China and India. With the inclusion of the new seven, the agency would contain the world's top 16 economies, five of the world's top 10 oil producers, and nine of the top 10 oil consumers.

This move is very timely - this year, emerging economies will, for the first time, consume more oil than the high-income countries. The weakness of China's energy statistics is a major cause of uncertainty and volatility in oil markets - we simply do not know how much oil it truly consumes or holds in storage.

But the new members also bring problems. The interests of Brazil and Mexico, major oil exporters, diverge from most of the IEA. But above all Russia, a massive exporter of oil and gas, has often seemed to use energy as a political tool. Now all three would be required to coordinate on emergency responses to disruptions - such as Russia's cut-off of gas to Ukraine or its 2008 war with Georgia.

And the divide between IEA and Opec is starker than ever - 19 of the top 20 oil

producers are members of one or the other. This comes at a time when oil prices are still strong, but buyers are increasingly confident of future supplies. A dialogue between producers and consumers, aided by the Riyadh-based International Energy Forum, helps to improve data transparency, but is hampered by underfunding.

In any case, neither side will act against its interests, despite repeated protestations that US\$100 (Dh367.3bn) per barrel is a price "fair for both consumers and producers". The Opec countries ask for assurances that their massive investments in production

capacity are required, but no government can guarantee a certain level of oil consumption. It seems odd to imagine Apple pleading for "security of demand" before releasing the new iPhone.

Despite Jobert's hostility years ago, France has long been a constructive member of the IEA - which is, after all, based in Paris. But will Opec see the reshaped organisation as a new war machine? And will the developed countries have to wait for a new crisis until learning whether some new members are allies or Trojan horses?

A version of this article appeared in The National newspaper on April 8th, 2013

Stable oil prices will not be staying that way much longer

By Robin Mills

For a commodity usually described as "volatile", oil prices have been eerily stable over the past three years - averaging US\$111.26 in 2011, \$111.57 in 2012, and \$111.89 so far in 2013. Despite the revolution in Libya, stringent sanctions on Iran and Japan's nuclear shutdown, the oil market has remained remarkably steady.

Yet on Friday, Brent oil prices fell sharply to under \$102 per barrel, their lowest level for nine months.

This came in response to downgrades of global oil demand by the producers' and consumers' representatives: Opec, the

Energy Information Administration in the United States and the International Energy Agency. They were particularly concerned about weak demand in Europe and Japan, as the economic crisis drags on.

Is the current price too high? And are the oil exporters risking a repeat of the crashes of 1986 or 2008? Experience from the 1970s and '80s suggests that it is hard for high-cost non-Opec supplies alone to trigger an oil price crash. But a price slump can be caused by a combination of swelling output outside the producers' organisation, intra-Opec competition in a scramble for markets and a drawn-out fall in demand.

The Saudi oil minister Ali Al Naimi has repeatedly described \$100 as a "fair" price for both consumers and producers. But in 2001, he said \$25 was fair; in 2004, \$34; in 2008, \$75 per barrel. The question is not fairness, but what price best balances short-term budgetary needs with long-term demand for Saudi oil.

Much is made of Saudi Arabia's supposed budgetary break-even price of about \$90 per barrel. But what is often missed is that the target is a combination both of price and export volumes. Riyadh's budget can break even at \$89 per barrel when the kingdom produces 9 million barrels per day (bpd), but if it has to cut back to 8 million bpd, it needs \$103 per barrel.

The problem is that the current price makes oil exporters critically dependent on the continuing expansion of a few Asian consumers - China above all - and ensures a virtually stagnant market for Opec's crude.

Meanwhile, there is growing interest in gas as a fuel for ships and cars. Non-Opec producers, especially US shale oil and Canadian oil sands continue to grow strongly.

Opec may think it can easily drive high-cost crude out of the market. But as technology and logistics improve, it is more likely that the unconventional oil revolution will be surprisingly robust, even if prices fall.

Australia, Argentina and Russia are candidates to be the next shale oil giant.

When certain Opec members - Libya, Nigeria or Iran - are suffering disruptions, there is room for the others. But Iraq above all, plus Libya, Kuwait, the UAE and perhaps a post-Chávez Venezuela, all have plans for major growth.

The Saudis, already uncomfortable with rising Iraqi production, have cut back their own output from about 10 million bpd in the middle of last year, to just above 9 million bpd.

Greater supplies from Iraq have filled the gap left by Iranian exports - but further US moves to tighten the noose are met with evasion from the Iranians and their customers.

Oil prices' eerie calm may well persist during this year - Saudi Arabia still has room to cut back. The danger is less a price crash, more a prolonged slide. At some point, Riyadh will weary of making room for its political adversaries in Baghdad.

For the major GCC producers with the luxury of long-term thinking, now may be time to coordinate on a more sustainable price - that permits economic and demand growth, and warns off high-cost competitors.

That price might be \$80 per barrel today - it will be lower tomorrow.

A version of this article appeared in The National newspaper on April 15th, 2013

Key MENA Energy Issues Scorecard

Gulf gas price reform	●	↔	Continued discussion on Saudi prices & petrochemical competitiveness
MENA unconventional gas	●	↔	Kuwait sees 0.15-0.2 Bcfd potential shale gas from northern fields
MENA renewable energy	●	↔	UAE energy minister highlights energy efficiency & excessively high energy intensity
MENA nuclear power	●	↔	UAE energy minister says nuclear to meet 25% of (Abu Dhabi's) electricity demand by 2020
Energy infrastructure security	●	↔	EU to lift sanctions on Syrian opposition oil sales; protests at Iraq's West Qurna field; further pipeline attacks in Yemen; South Sudan oil exports resuming; Oman to build world's largest above-ground oil storage facility
OPEC production	●	↓	17-month low in March, down 100 kbpd since February, mostly due to Saudi Arabia and Nigeria; OPEC and EIA reduce forecasted 2013 oil demand for 2013; UAE energy minister reaffirms 3.5 Mbpd production capacity target (by 2017)
East Mediterranean gas commercialisation	●	↑	Discussions of exporting Leviathan gas via Cyprus; some positive comments from Turkey on Cyprus; Lebanon pre-qualification finalised but bid round may be affected by political turmoil; Egypt awards 8 Mediterranean blocks
Kuwait energy projects progress	●	↔	Further political protests over jailing of opposition politician
Abu Dhabi concessions renewal	●	↔	ADNOC pressing ahead with sole-risk SARB development ahead of concessions expiry; Shell likely to win Bab sour gas development
Baghdad-Erbil oil agreement	●	↓	More detail emerges of Turkey-KRG deal; oil pipeline to border almost complete; KRG President Massoud Barzani meets Turkish Prime Minister Erdoğan; Erdoğan to visit US
Iraq oil production build-up	●	↓	Exports down 5% in March with bad weather & northern pipeline fault; violence flares near Kirkuk
Egypt subsidy reform	●	↔	Fuel rationing system to start in July but could be delayed; cooking gas price rises only symbolic; Qatar/Egypt loans give false comfort on urgency of subsidy reform
Iran oil sanctions	●	↔	Parties failed to reach agreement during nuclear talks in Almaty; Iran's oil exports increased despite sanctions as it used ship-to-ship transfers and blended its fuel oil to hide its origin; Shell unable to pay oil debt in food & medicines

Source: Manaar research

●	Very positive	↑	Improvement in last month
●	Positive	↔	No change
●	Negative	↓	Deterioration in last month
●	Very negative		

Energy Prices and Generation Costs in the Middle East

The following table represents April 2013 gasoline, diesel and electricity prices (top rate for residential consumers) in selected MENA countries, with the US for comparison, and the direction of change since last month.

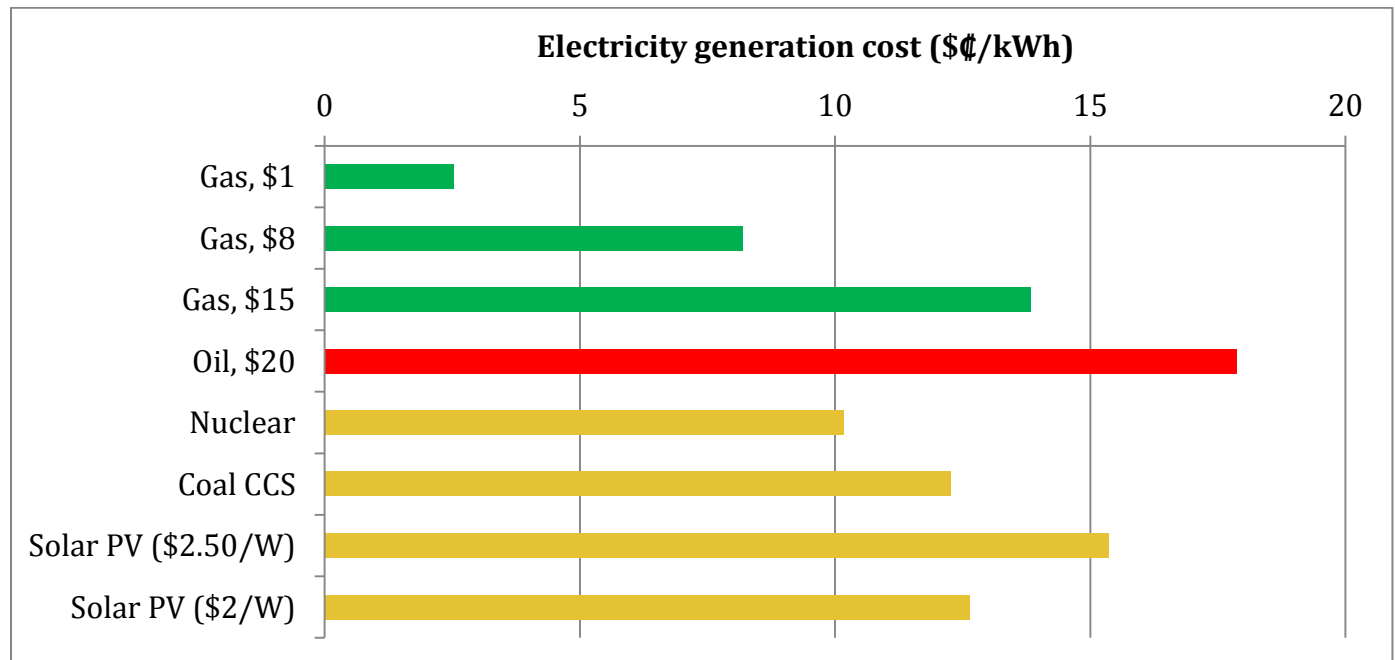
	Gasoline (\$/Litre)	Diesel (\$/Litre)	Electricity (\$¢/Kwh)
Saudi	0.21	0.09	6.9
Qatar	0.25	0.25	2.7
Bahrain	0.27	0.17	4.2
Kuwait	0.30	0.27	0.7
Oman	0.40	0.48	7.8
Yemen	0.44	0.30	7.9
UAE	0.48	0.67	10.35*
Iran**	0.57 ↑	0.29 ↑	1.37

	Gasoline (\$/Litre)	Diesel (\$/Litre)	Electricity (\$¢/Kwh)
Egypt	0.59 ↑	0.46 ↑	6.8
US	0.934 ↓	1.027 ↓	9.66
Iraq	1.00	0.72	6.7
Lebanon	1.15 ↓	0.90	13.3
Jordan	1.38 ↓	0.96 ↑	33.2

*Dubai's electricity price.

**Non-subsidized allocation, at current (volatile) open-market exchange rate (US\$1:IR 35000)

Source: Gulf Oil Review; Manaar research



- Thermal generation (gas, oil) assumes combined-cycle turbine, baseload
- Alternative generation (solar, nuclear, coal CCS) is cheaper than LNG or oil
- However, high-cost domestic gas (e.g. unconventional) at approximately \$8/MMBtu is still competitive against alternatives

Current studies

Hydraulic fracturing

Manaar has recently completed a study of the market for hydraulic fracturing in the MENA region, with PacWest Consulting. The report is available in MENA-only (29 pages) and worldwide versions (45 pages including the MENA section). The report addresses historical and forecasted frac demand, supply, utilization, constraints and trends. Market coverage also includes current hydraulic fracturing projects, unconventional potential assessments and detailed basin and play maps. The majority of the information gathered in the reports relies on primary intelligence: in-depth surveys and conversations with industry leading experts and technical specialists.








Dimension	Score	Description
Geology		▪ Excellent geology that underlies the most prolific petroleum system in the world; Rub' Al Khali results disappointing thus far
Pricing regime		▪ State-set at very low \$0.70 per mcf; unlikely to change soon; very problematic for foreign operators seeking JVs; less of an issue for Aramco, which wants to displace oil
E&P diversity		▪ Aramco dominates; JVs with three IOCs in the Rub' Al Khali have been disappointing; fiscal terms are difficult
OFS capacity		▪ SLB and HAL already serve the country, and BHI and others should enter the market in the next few years
Regulatory landscape		▪ Aramco is able to operate with little government interference, but challenges exist for foreign operators, if allowed to operate in unconventional development at all
Infrastructure		▪ Very well-developed infrastructure from existing petroleum output in Ghawar and northwest, but Rub' Al Khali is isolated
Development constraints		▪ Public very supportive of increased output
Weighted Score	2.6	

Figure 1. Country attractiveness matrix for Saudi Arabia

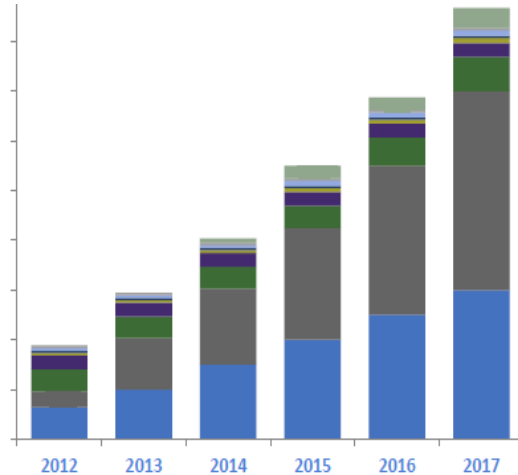


Figure 2. Forecast frac capacity, per MENA country

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MENA petrochemicals

Manaar is preparing a potential study of MENA petrochemicals and gas feedstock. The study will focus on

- the current gas situation in MENA,
- implications for petrochemicals in the region
- the downstream / speciality petrochemical value chain
- competitiveness of MENA petrochemical companies versus the US, EU and Asia

This study will be of key interest to large Gulf-based and international petrochemical producers and gas suppliers.

Manaar has prepared a study on the impact of global shale resources on MENA. The study will focus on:

- The strengths, weaknesses, threats and opportunities of unconventional gas in the MENA.
- Differences in the development of unconventional gas between North America and MENA.
- Identifying MENA's unconventional gas potential; understanding current and planned activity levels per country, company and basin.
- The impact of the shale boom on future demand for MENA oil & gas, oil and gas prices, possible new pricing hubs, and oil and gas exports.

Recent & Forthcoming Events

On 16th April Robin Mills moderated the session on Energy Supply Management at the [Dubai Global Energy Forum](#), with discussion of nuclear, carbon capture & storage, smart grids, ExxonMobil's energy outlook and unconventional oil & gas.

Robin Mills participated in a discussion on Natural Gas and Investments in the Middle East at the Brookings Doha Energy Forum from April 1-2nd 2013. Key points were:

- A rethink of both prices and commercial terms is necessary for the region to make the most of its gas endowment.
- Gas can contribute to wider economic development with more attention to indigenous service industries & local private sector.
- The region has not yet formulated its response to the opportunities and challenges of the global shale boom.

Jaafar Altaie spoke at the [Middle East Petroleum & Gas Conference](#), Jumeirah Al Etihad Towers, Abu Dhabi on 21-23rd April 2013, on the Iraq oil market and its future outlook.

Robin Mills will speak on a panel on the Middle East impact of shale oil and gas, at the Dubai International Financial Centre on 15th May 2013.

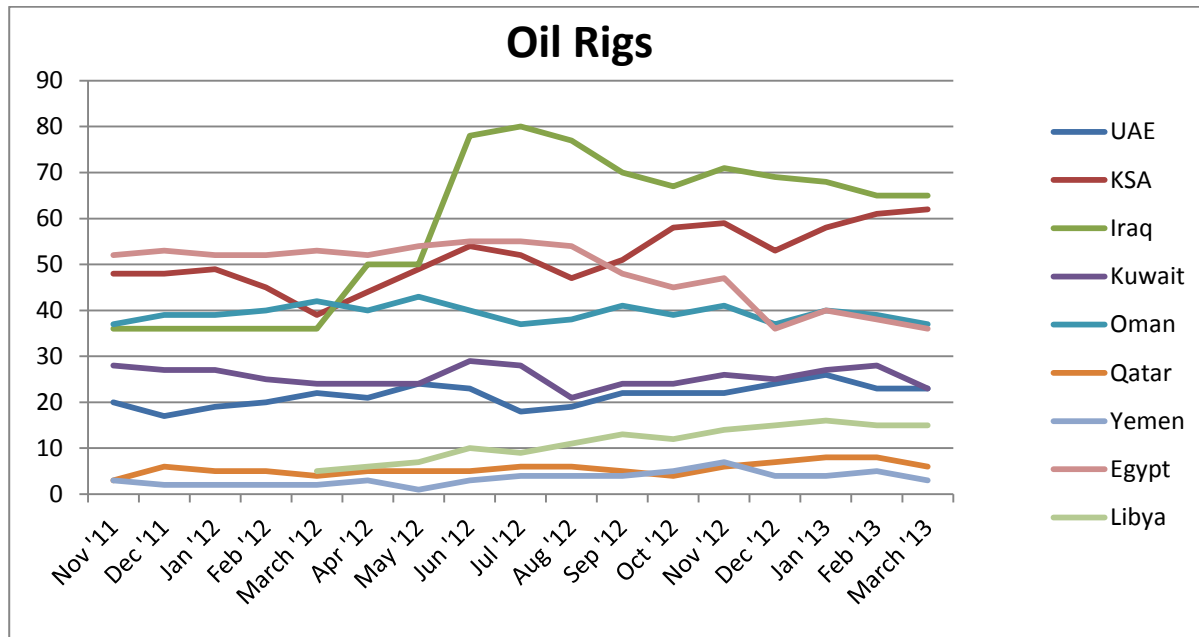
Jaafar Altaie will speak at the [Doha Forum](#), Sheraton Hotel, Qatar from the 20th-22nd of May 2013, on the effect of the US shale gas boom on the MENA region.

Please visit the links below to view some of the presentations by Manaar:

[MEED Kuwait Energy & Infrastructure Projects Kuwait, November 2012](#)

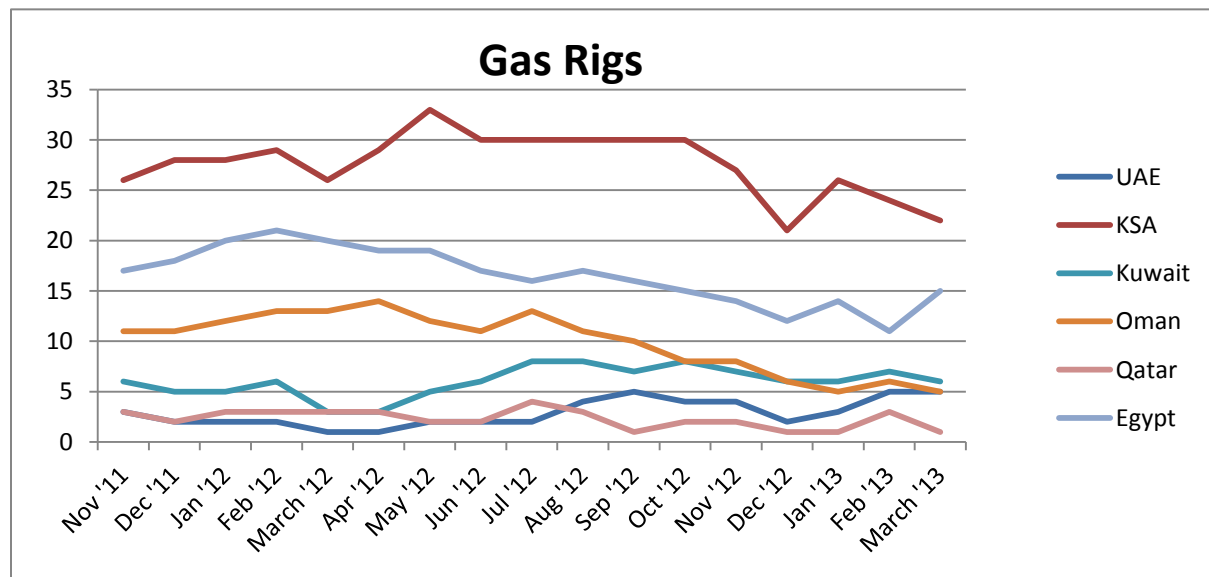
[Middle East Energy Outlook; British Business Group, Dubai, 2012](#)

Regional Energy Statistics



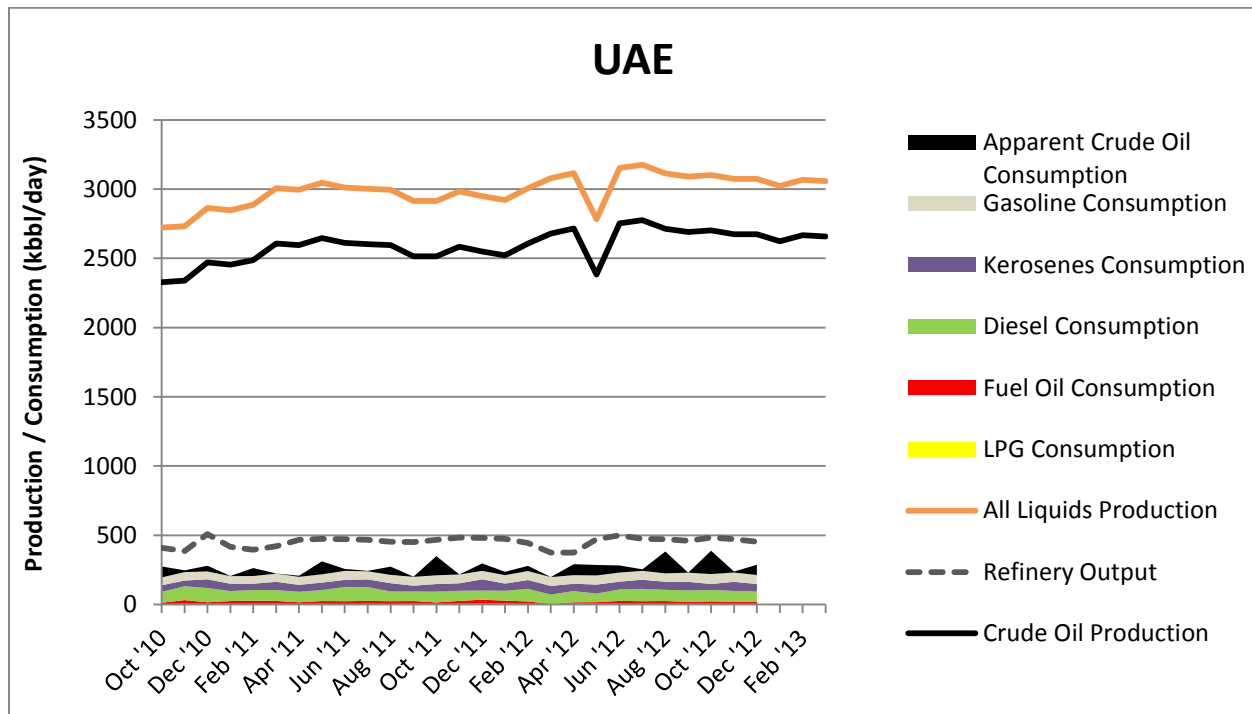
Source: Baker Hughes, Iraq: Baker Hughes and OPEC Monthly Oil Market Report

- Saudi Arabia continued its rebound from the slight dip in December, to near-record levels.
- Egypt drilling continued its steady fall since mid-2012, amid political, community and payment uncertainties.
- Iraq rig count was steady, somewhat down from its mid-2012 high, but still top in MENA.
- Libya rig count was steady at around pre-revolution levels.

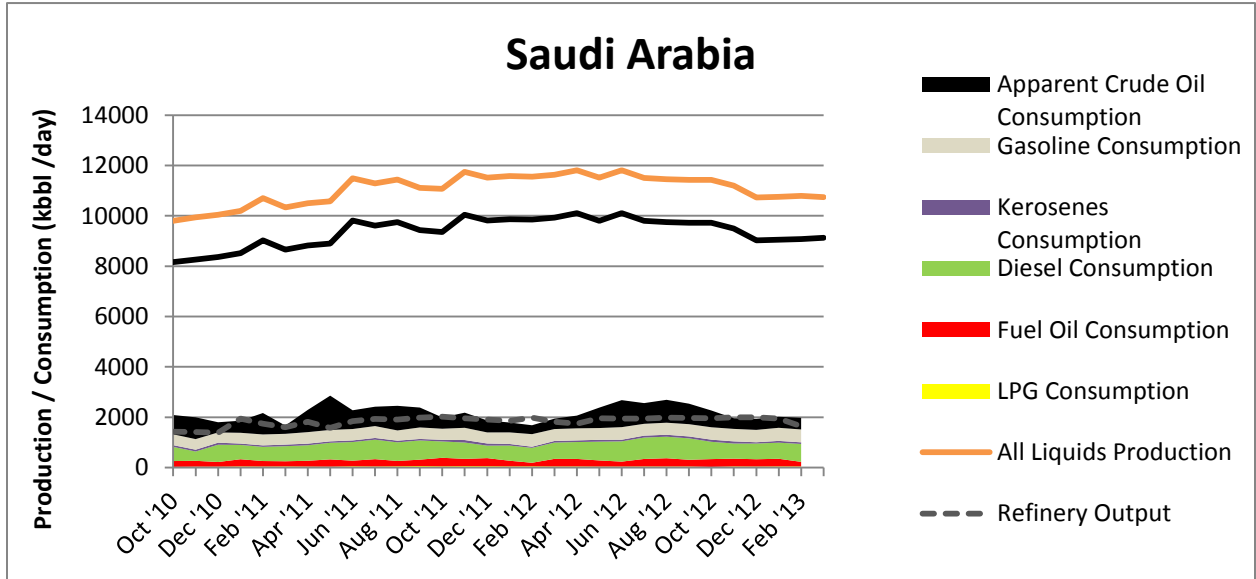


Source: Baker Hughes

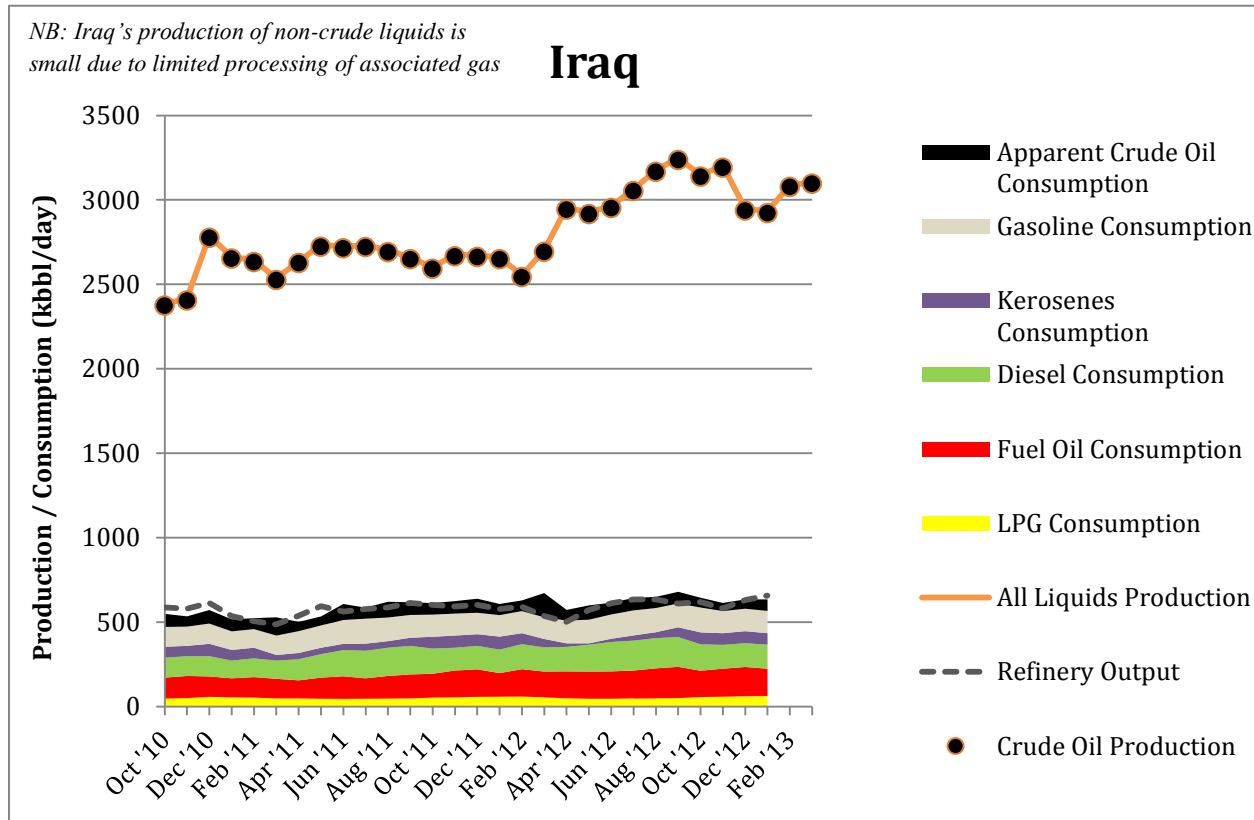
- Saudi Arabia's gas drilling fell back from February.
- Egypt's gas rig count recovered somewhat from February's low.
- All UAE gas rigs are located in Abu Dhabi; there are no current gas projects in Dubai.
- Oman gas rig count fell back again in March after the slight rise in February.

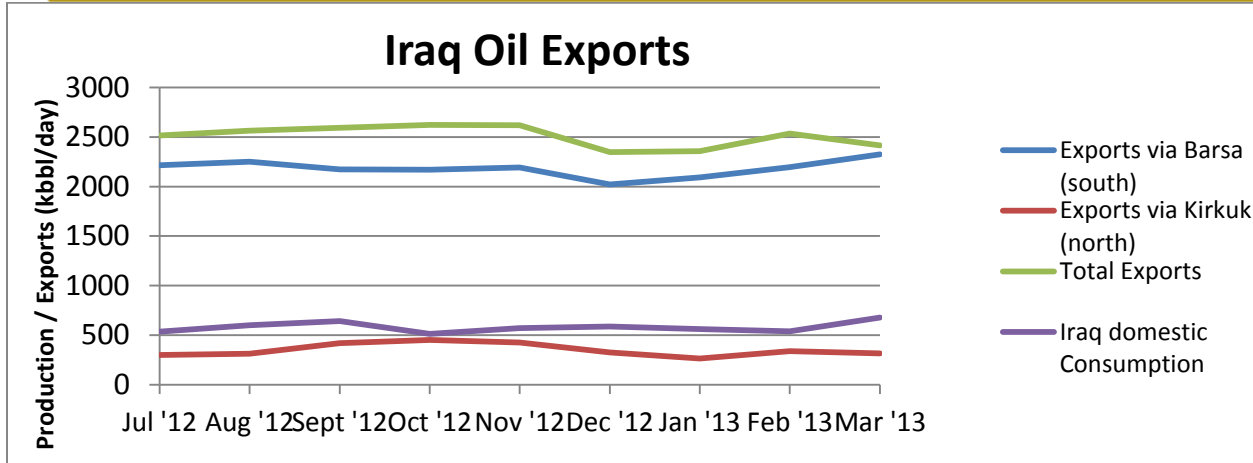


- UAE's Crude oil production remained stable in March.
- The country has not updated its JODI figures since December 2012



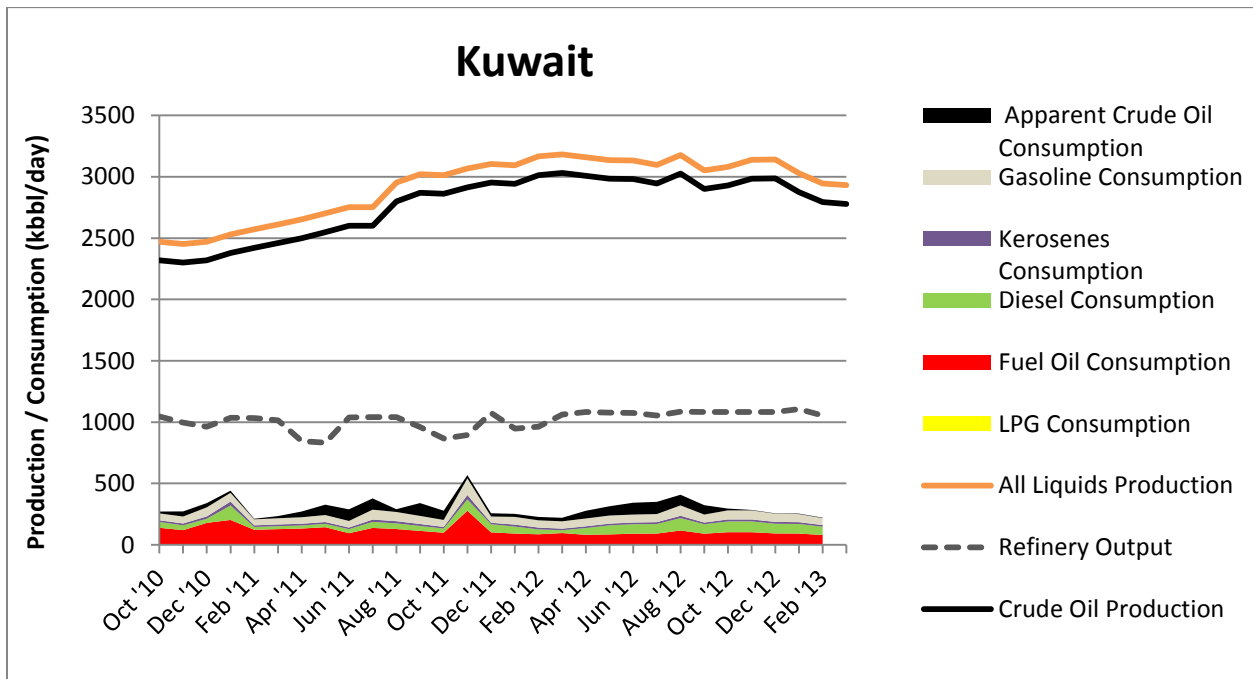
- Saudi domestic consumption of oil and oil products dropped from 1706 kbbpd in January to 1500 kbbpd in February, a 15-month low.
- March crude oil exports increased by 363 kbbpd over February to reach 7454 kbbpd, the highest level since June 2012.



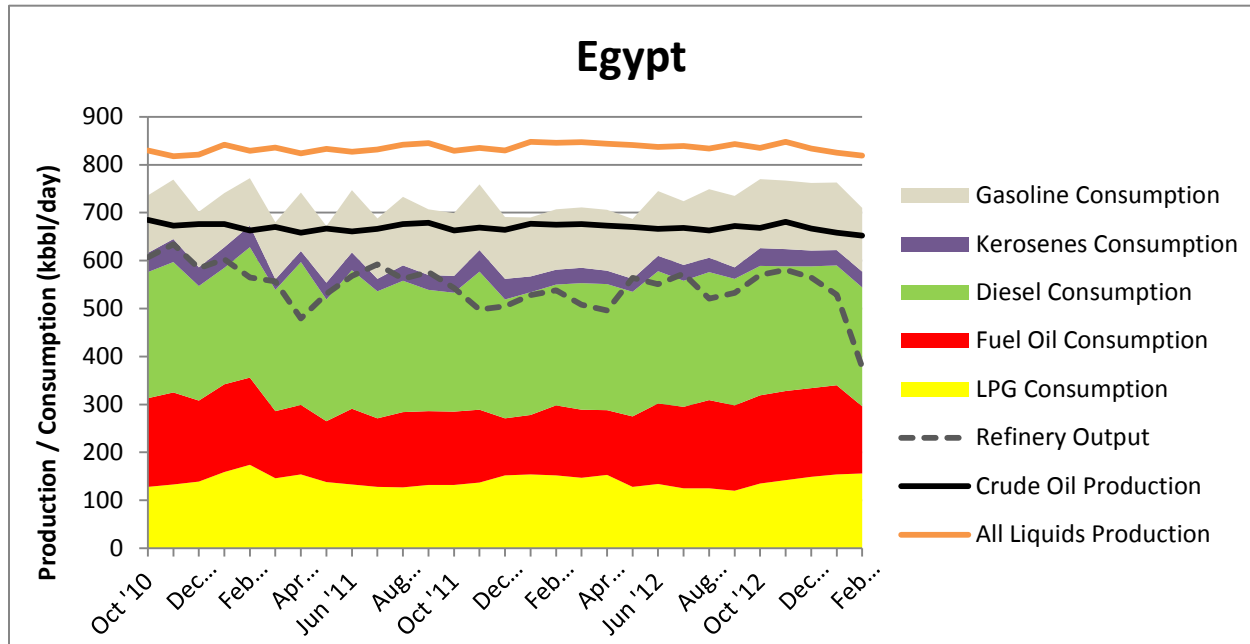


Source: Iraq Oil Ministry

- Iraq's Crude Oil Exports dropped 5% in March due to bad weather conditions in southern Iraq, which caused southern oil exports to decrease by 920 kbbpd, and a leak in the northern export pipeline (fixed on 30th of March) which caused the northern oil exports to drop from 327 kbbpd to 300 kbbpd.
- Exports to Jordan by truck were similar to last month's at 15 kbbpd.
- Iraq's oil exports are still below 2.5 mbpd despite a target of 2.9 mbpd for 2013.



- Kuwait oil production was steady in March, having fallen back significantly from November.



- Refinery output collapsed in February, due to refiners' credit problems.
- Oil (and gas) production are also in decline.

Source: JODI, OPEC, Middle East Economic Survey & EIA

NOTE: All crude oil consumption values are apparent due to unreported / misreported stock change values and refining gains/losses.

Recent & Forthcoming MENA Licensing Rounds

Country	Round	Launch Date	Blocks on Offer	km ² offered	Blocks Awarded	Closing Date
Egypt	EGAS	Jun - 12	15	57,300	8	Feb - 13
Egypt	EGPC	Sep - 11	15	18,000	11	Mar - 12
Egypt	Ganope	Dec - 12	20	125,577	-	May - 13
Iraq	4 th Licensing Round	Apr - 11	12	80,700	3	May - 12
Iraq	5 th Licensing Round	NA	10	NA	-	NA
Lebanon	1 st Licensing Round	Feb - 13	10	22,730	-	May -13
Syria	Offshore	May - 11	3	9,038	0	Oct - 11
Oman	MOG	Jan - 12	4	26,837	2	Aug - 12
Oman	MOG	Nov - 12	7	103,422	-	Jan - 13
Yemen	6 th Licensing Round	Sep - 12	5	20,132	-	NA

Updates since last issue in **red**

Source: Deloitte; Manaar research

Key Manaar people



Jaafar Altaie, Managing Director

Jaafar founded Manaar in 2009 in response to growing international interest in Iraq. With a background in economics and engineering, Jaafar has worked for BP, Nomura, Petrobras and the Iraq Ministry of Oil.



Robin Mills, Head of Consulting

Robin is an expert on Middle East energy strategy and economics. He is the author of two books and a prolific writer on energy and environmental issues. He worked for 15 years in geology and economics for Shell and the Dubai government.



Chad Al-Sherif Pasha Advisor

Chad is a geo-political advisor and senior project manager with a successful track record developing strategic initiatives with corporations and governments. He has particular expertise in Central Asia.

Roa Ibrahim Industry Analyst

Roa Ibrahim received her Bachelor's degree in Finance from the American University in Dubai and her Master's degree in Applied Finance and Banking from the University of Wollongong in Dubai. Roa has produced expert analysis of petroleum fiscal systems, hydraulic fracturing and shale gas.

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